International Journal of Business and Economic Development
Vol. 2, No. 4; December, 2021. pp 32-43
ISSN 2692-5591 (print), 2692-5583 (online)

Published by International Center for Promoting Knowledge

The Moderating Role of Financial Constraints in the Influence of Environmental Sustainability Reporting on the Stock Returns of Firms Listed on the Tehran Stock Exchange

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Abstract

Research objective: stock return demonstrates the efficiency of a firm in creating net interests for the shareholders in return for their investment in firm stocks and is influenced by various factors. The present study seeks to investigate the impact of environmental sustainability reporting on stock returns considering the moderating role of financial constraints.
Methods: The study has been conducted using data from firms listed in Tehran Stock Exchange selected through purposive sampling over 2012-2019. The present study is applied in terms of the research objective, and multiple regression has been used for data analysis. The Kaplan and Zingales (1997) model has been used to estimate financial constraints in this study, given the current practice in previous domestic and foreign research.
Results: Results of the study indicated that environmental sustainability reporting had a significant and positive influence on the stock returns of firms listed on the Tehran Stock Exchange. Besides, results demonstrated that financial constraint played a negative moderating role in the relationship between environmental sustainability reporting and the stock returns of firms listed in the Tehran Stock Exchange.
Conclusion: according to the results, firms' attention to environmental issues, respecting social rights, and reporting their performance to the community will lead to social support and organizational legitimacy for the firms and will result in them acting successfully in the achievement of the goals desired by the shareholders which are increased stock returns. On the other hand, the presence of financial constraints in the firm acts as an obstacle in this regard and delays the expected return on stocks.
Contribution: the present study is the first to investigate the moderating role of finical constraints in the influence of environmental sustainability reporting on the stock returns of firms listed on the Tehran Stock Exchange.

Keywords: financial constraint, sustainability reporting, stock return, social responsibility

1. Introduction

Achieving the desired interest in return for taking risks is the most significant goal of those working in the capital market, particularly shareholders. Thus, the stock return has always been considered one of the primaryand most essential financial variables by those working in the capital market. Therefore, identification of the factors influencing stock return is of great significance for various groups. On the other hand, firms have been constantly pressured by multiple political and social institutions directly and indirectly for their environmental performance as a large part of the economy over the recent years and after the emergence of environmental problems. Desirable performance in this area and reporting environmental sustainability are expected to influence various aspects of the firm, such as stock return, directly. Besides, firms cannot implement all their desired programs due to financial constraints that will have an adverse influence on frim activities. Thus, the present study will first investigate the impact of environmental sustainability reporting on stock return and then test this relationship with the intervention of the variable of financial constraint given the existing research background and the research gap in the domestic literature.

2. Research literature and background

The return of an investment refers to the realizable cash flows earned by the investors over a specific investment period. Return is typically defined as the percentage of the value of the investment made at the beginning of the period. Returns are the driving force that creates motivation in the process of acquisition and counts as a reward for investors (Indriastuti&Najihah, 2020). Stock return is influenced by various factors. Indriastuti and Najihah (2020) argued that stock return is associated with environmental reporting, and investors react to such firms. Ecles et al. (2014) discovered that firms with higher sustainable performance have a higher abnormal return compared to other firms. Klassen and McLaghin (1996) and Jacobs et al. (2010) demonstrated that the market reacts positively to the firms that have received environmental awards. Andrea and Binkman (2019) suggested that abnormal return is significantly and positively influenced by publishing the environmental performance of the firms. Disclosing environmental activities is consistent with the signaling theory as well. This theory indicates that firms must send signals by reporting their environmental activity to attract investors and shareholders, which will result in increased trust of shareholders and those working in the capital market in the frim and increase stock value.

Miralles et al. (2017) reported that goof environmental performance attracts support from the investors and increases the value of the firm. According to the legitimacy theory, firms will gradually lose their legitimacy and be cast out if they fail to carry out their responsibilities towards their community (Bebbington et al., 2008). Companies must engage in social activities and fulfill their social obligations to earn legitimacy (Fernando & Lawrence, 2014). Firms that engage in environmental and social activities transmit the message to the community that their commercial activities are not merely based on personal gain but also seek to satisfy the community; and earn legitimacy for themselves by persuading the stakeholders in this way (Rawi&Muchlish, 2010). A firm will lose its social power, and its financial performance will eventually decline if it fails to balance human resource retention and natural resource preservation (Davis, 1975).

The ethical theory indicates that the right criterion of success for firms is not merely the reported profit but is instead defined by their corporate governance, social responsibility, ethical behavior, and environmental plans (Broket&Rezaii, 2013). The expressions of firms’ social responsibility and sustainable environmental, social, and governance (ESG) sustainability are used interchangeably in the literature, while the aspects of each of them can be discussed separately (Nakhily et al., 2017). The present study investigates the environmental aspect of sustainable performance as one of the significant sustainable performance dimensions. The investors cannot identify the non-profitable projects of the firm in a non-transparent reporting environment with no apparent social responsibility report since clear information required to make the optimal decision is unavailable. Thus, it is impossible to tell profitable and non-profitable projects apart. The firms' tendency to play their part in social responsibility will leave a significant impact on firm performance and is followed by influences on stock price and return (Sandho& Capo, 2010). Therefore, economic units can maximize their long-term returns by reducing their adverse impacts on the community voluntarily to the extent that the idea that long-term success can be achieved by earning public trust through social support is a persisting idea among firms (Sami et al., 2008).

On the other hand, financial constraints refer to the amount of money available to finance the firm’s desired investments (He & Ren, 2018). In other words, firms have financial constraints if they have to deal with a gap between their internal and external consumption of allocated funds (Fazzari, 1988). Empirical studies in macroeconomics and indicate that accumulated movements in financial constraints impact firm value. A set of studies on this topic have focused on the interest rate (Saa et al., 2001). The results of Kim and Stambaugh (1986) and Stock and Watson (1989) suggest that the difference between interest rates of the deposits received from depositors and granted facilities called interest range can act as a predictor for return on assets. HorashioSapriza and Lu Zhang (2004) demonstrated that financial constraints reduce frim value and investment rates, and these adverse effects are more significant for small firms and firms that are under financial pressure. They also demonstrated that firms with financial constraints take fewer risks and their expected returns are naturally lower than other firms. Economic enterprises with financial constraints deal with higher capital costs and financing delays, so their projects are more likely to fail, and their risk of stock price falling will increase

(Ou &Ren, 2018). Financial constraint is a crucial element for investment and financial decisions in firms (Xiao & Wang, 2020). Besides, Hong et al. have stated that firms with good environmental reporting performance will have reduced financial constraints. Cheng et al. (2014) reported that better social responsibility performance is associated with less financial constraint in firms. Firms that produce more pollutions as a result of their activities are more inclined to disclose comprehensive environmental information to address the concerns of the investors (Cho & Patton, 2007).

A review of the literature reveals that although studies have been conducted on financing through commercial credit, few studies have investigated the influence of factors impacting financing through commercial credit, especially in Iran, so the relevant domestic and foreign studies are reviewed as follows.

Abdulaziz et al. (2021) conducted a study entitled “The Impact of Environmental Sustainability Disclosure on Stock Return of Saudi Listed Firms: The Moderating Role of Financial constraints.” Their results indicated that environmental sustainability disclosure had a negative influence on stock returns. Firms with more financial constraints experienced a smaller impact of environmental sustainability disclosure in their stock return, so financial constrain was confirmed as a moderator in this relationship. Shuoyuan He and Ganapathi (2020) conducted a study entitled “Earning Acceleration and Stock Returns.” Their results using the five-factor Fama-French model indicated that the impacts of stock decline were lower in firms with higher institutional ownership than firms with fewer institutional shareholders. Osoolian et al. (2017) conducted a study entitled "the Study of the Relationship between Accruals and Stock Returns." Their results revealed that operational cash-based operating profitability is a better criterion to explain stock returns. Lim and Prak (2011) conducted a study entitled "Study of the Relationship between Stock Returns and Profit." Their results indicated that increased stock return insufficiency results in a temporary decline in the regression determination coefficient of profit with stock returns. Besides, profit and stock return insufficiency result in a significant decline in the relationship between stock return and profit. Among Iranian studies, BarzgariKhanghah et al. (2020) conducted a study entitled “the study of the interactive influence of social responsibility and tax risk on the value of firms listed in Tehran Stock Exchange.” Their results demonstrated that social responsibility and tax risk significantly influence firm value in all the four models of capital assets pricing in firms listed in Tehran Stock Exchange. Safdarian et al. (2019) conducted a study entitled “the rile of risk-based return in future return prediction.” Results of this study indicated that risk-based return of the past six months could better predict the return of the first, third, and sixth months ahead compared to the return of the past six months. Their results also indicated that the risk-based return of the past 12 months is a better predictor than the risk-based return of the past six months. Farshad Amanollahi and MadanchiZaj (2019) carried out a study entitled “the role of accruals in profitability and stock returns of firms.” Their results demonstrated that the market reacts positively to the disclosure of increased stock returns, which indicates a significant and positive relationship between the variables. Nazemi and abdoli (2019) conducted a study entitled “the relationship between profit and cash flows before and after the restatement of financial statements.” Their results confirmed that financial statements and cash flows, profit, free cash flows, and accruals has a significant and positive relationship with returns. However, the variables of operating profit, accruals, and operational cash flows did not have a significant impact on firms’ returns after restatement, and a significant and negative relationship was observed between returns and operational cash flows. Hosseini et al. (2019) conducted a study entitled “the analysis of the influence of accruals strategy on earning returns in investment firms.” Their results indicated that the amount of using traditional accruals strategy had a significant and positive influence on excess returns, but has no significant influence on risk-adjusted returns. HassasYeganeh et al. (2018) conducted a study entitled "analysis of the environmental sustainability performance and its impact on the capital costs of firms listed in Tehran Stock Exchange." Their results indicated that the information on environmental sustainability performance has a positive influence on the firm's capital costs which can be due to stock price fluctuations, the negligence of the specific firm features such as managers' capabilities or staff's skills, or the interactive impact of historical and prospective information. PasgarnezhadNouri (2018) conducted a study entitled "the factors influencing stock returns in firms listed on TSE: a meta-analytic approach." His results indicated that the ratios of liquidity, activity, leverage, profit management, and firm features did not influence the stock returns of firms, while the positive influences of other factors including the market return, cash flow ratios such as operating cash flow, risk indices such as risk premium, profit prediction indices such as profit prediction horizon, and eventually, real investment on stock returns was confirmed. Hajiha and ChenariBoukat (2016) conducted a study entitled “corporate social responsibility and stock return skewness." This study revealed that social responsibility and positive stock return skewness had a significant and positive relationship, so that social responsibility leads to increased stock price. Despite the numerous studies conducted on the factors contributing to stock returns in the Iranian stock market environment, the role of environmental sustainability disclosure as one of the most significant dimensions of social responsibility on stock returns with the moderating role of financial constraints has been neglected. Thus, the present study seeks to discover whether environmental sustainability reporting has influenced the stock return of the studied firms over the studied period and determine whether financial constraints play a moderating role in these relationships.

3. *Research hypotheses*

The first hypothesis: environmental sustainability reporting has a significant impact on the stock returns of firms listed on the Tehran Stock Exchange. The second hypothesis: Financial constraints play a moderating role in the influence of environmental sustainability reporting on thestock returns of firms listed in the Tehran Stock Exchange.

4. *Research method*

The present research is a descriptive study, is applied in terms of research objective, and is among the deductive and retrospective research using quantitative data. Multivariate regression has been used in the Stata software environment to test the relationships between the variables and determine their significance. The statistical population of the present study consists of the firms listed on Tehran Stock Exchange, and the following are the inclusion criteria:

1. To increase comparability, the fiscal year of all firms must end on March 19^{th}.
2. The firms must have been listed on Tehran Stock Exchange by 2012 and remain on the list until the end of 2019.
3. Their data must be available, and their fiscal year must not have changed during the studied period.
4. The firms must not be among banks, insurance, and financial firms.

Considering the inclusion criteria mentioned above, 145 firms were selected from the statistical population between 2012 and 2019 to test research hypotheses, and the final sample size was calculated to be 1160 year-firms.

5. *Research variables and model*

Equations 1 and 2 used in the model introduced in the study of Abdulaziz et al. (2021) were used to test research hypotheses. The first hypothesis will be confirmed if the significance level of the independent research variable (β_1) is significant.

1. Running the regression between environmental sustainability reporting and firm stock returns.

$$Ret_{it} = \beta_0 + \beta_1 ENV_{it} + \sum \text{Controls variable} + \epsilon_{it} \quad (1)$$

2. Running the regression of the negative moderating role of financial constraint in the influence of environmental sustainability reporting on firms' stock returns.

$$Ret_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 KZ_{it} + \beta_3 ENV_{it} * KZ_{it} + \sum \text{Controls variable} + \epsilon_{it} (2)$$

The variable of financial constraint was included in the model as a moderating variable to estimate the second model based on Baron and Kenny's (1986) regression method.

5.1. The dependent variable

Stock return (Ret) is considered as the dependent variable in this study, which is calculated using Equation 3:

$$Ret_{it}=(1+\alpha)p_1-p_0+Dps-1000\beta/ p_0 \quad (3)$$

Where P0 is the stock price at the beginning of the period, P1 is stock price by the end of the period, Dps is the dividend of each share, α is capital increase percentage as shares, and β is the capital increase percentage from cash and receivables (Saedi&Rezaian, 1398).

5.2. The independent variable

Environmental sustainability reporting (ENV) is the independent variable in the present study. Considering the few studies conducted on environmental sustainability reporting, specifically in Iran, the study of Abudlaziz et al. (2021) and HassasYegane (2018) were followed in scoring the environmental indicators, in which the indicators were scored either one or zero. Environmental sustainability reporting was calculated as follows based on previous research:

$$ENV_{it}=[\sum^{n}_{i=1} X_i] /n \quad (4)$$

Where ENV_{it} is the environmental sustainability reporting of firm i in year t, and X_i is the score of the environmental indicator. A score of one will be assigned to each of the 20 environmental indicators for every indicator disclosed by the firm in the studied year, and a score of zero will be assigned to each indicator not disclosed by the firm. Eventually, the scores are summed up and divided by 20 to obtain the final environmental sustainability reporting of the firm in the mentioned year. Thus, the score will vary between zero and 20.

5.3. The moderating variable

The variable of financial constrain has been considered as a moderator in the present study. The model introduced by Kaplan and Zingales (1997) thathas been localized by Tehrani and Hesarzadeh (2009) as follows and used by Dastgir et al. (2019), has been used.

$$KZ=13.770-37.486C-15.216DIV+3.394Lev-1.402MTB \quad (5)$$

Where C is the cash-to-asset ratio, DIV represents the dividends on assets, Lev is financial leverage, and MTB represents the ratio of book value to the market value of equity. The method of using this indicator is that the first values are first entered in the KZ indicator equation, and KZ is calculated. Then, the values are sorted from the smallest to the largest and divided into five groups. The firms in the fourth and fifth quintiles are identified as the firms with financial constraints and are assigned a value of one. The value of zero is assigned to the rest of the firms. This variable has been considered as an imaginary variable considering most studies conducted on corporate constraints, which means that the firm is either under financial constraints based on the result of Kaplan and Zingales index and is assigned the value of one, or the output indicates that the firm is not under financial constraints and is assigned the value of zero.

5.4. Control variables

The following variables will be used to control research results as indicated in the study of Abdulaziz et al. (2021):

Firm size (Size): the natural logarithm of total assets, and Equation 6 will be used to measure firm size.

$$Size= Log\ (Total\ Assets) \quad (6)$$

Financial leverage (Lev): the ratio of total debts to total assets that will be used to measure financial leverage

$$Lev= Debt/Assets \quad (7)$$

The return on assets ratio (ROA): This variable is the return on assets ratio, obtained by dividing net benefits by the book value of assets at the end of the fiscal year.

$$ROA= net\ profit/\ assets\ book\ value \quad (8)$$

Firm growth (MB): the result of dividing the market value to book value of equity

MB= equity market value/ equity book value

6. Research findings

6.1. Descriptive results

The following table shows the descriptive statistics of the research variables which demonstrates descriptive parameters for each variable separately.

Table 1: the descriptive statistics of variables

Variable	Symbol	Observation	Mean	Min	Max	Standard deviation	Skewness Coefficient	Elongation
Stock return	Ret	1160	0.611	-0.01	0.817	0.096	0.653	2.44
Sustainability reporting	ENV	1160	8.599	4	14	3.22	0.160	1.85
Market to book value	MTB	1160	4.14	0.801	12.79	3.24	1.33	3.94
Firm size	Size	1160	14.65	1.542	17.64	1.34	0.582	2.70
Financial leverage	Lev	1160	0.541	0.187	0.868	0.190	-0.142	2.14
profitability	ROA	1160	0.151	-0.02	0.413	0.122	0.592	2.39

As Table 1 demonstrates, the mean stock return has been 0.611 in the studied firms over the studied period with a minimum of -0.015 and a maximum of 0.817. This indicates the increased price of each share over the studied financial period during which some firms have lost, and most firms have gained stock returns. Mean environmental sustainability reporting, which got a score of 0-20 for each firm depending on the specified indicators was 8.599, which indicates the relatively good condition of environmental sustainability reporting in the firm listed on the Tehran Stock Exchange. Closer investigations indicate growing attention to sustainability reporting among the studied firms, which suggests that these firms have become aware of the positive influences of this reporting on firm performance and are thus paying more attention to it. The number of reported environmental sustainability indicators varied between 4-14 cases, and some companies with more unsatisfactory performance or higher performance were eliminated from the calculation to removed outlier data. Mean financial constraint, which was used as the moderator and estimated based on Kaplan and Zingales method, was 54% in the studied sample which reveals that the firms operating in the Iranian Stock Market are dealing with financial constraints.

6.2. Deductive results

Multiple linear regression has been used to test research hypotheses. The collinearity between the independent research variables was examined using the variance inflation test before fitting the model. Experimental results indicate that variance inflation factors larger than 5 indicate a probable error and values larger than 10 indicate a serious error, which means that the regression coefficients for the reason of multiple collinearities have been estimated poorly. Results of this test revealed no severe collinearity between the control and independent variables. The Chow test (the F-test) was used in the present study to select the most model between panel data using the fixed-effect method, the Breusch-Pagan test was used to select the best panel data model using the random effects method, and the Hausman test was eventually used to select the best panel data model using fixed and random effects methods. Table 2 demonstrates a summary of the results of these tests:

Table 2: results of Chow, Breusch-Pagan, and Hausman tests

Hypothesis	Test						The selected model
	Chow		Breusch-Pagan		Hasuman		
	Statistic	Significance	Statistic	Significance	Statistic	Significance	
1	6.57	0.0000	673.72	0.0000	2.36	0.7968	Random effect model
2	6.63	0.0000	681.43	0.0000	3.91	0.9173	Random effect model

According to the results of the table above, the random effect method was selected to estimate the models of the present study. Some of the main fundamental regression assumptions, such as no residual auto-correlation, cross-sectional residual correlation, and variance heterogeneity must be tested before the model is estimated. Pesaran test was used in the present study to test the cross-sectional correlation of residuals. The results of the Pesaran test indicate that the null hypothesis suggesting no cross-sectional correlation between the residuals is rejected since the significance level is smaller than the 0.05 expected error, so the alternative hypothesis indicating the lack of cross-sectional correlation between the residuals is confirmed. The Haskell tests were used to resolve this issue. The Valderidge test (2002) was also used to examine serial auto-correlation. Since the significance level obtained from the Valderidge test was smaller than 0.05, the null hypothesis was rejected, and the alternate hypothesis indicating serial auto-correlation and first-order auto-correlation was confirmed. The generalized least squares model of the Xtgls… AR (1) command was then used to resolve the autocorrelation problem. There is no need to examine the assumption of variance heterogeneity since the random-effects model was selected for model estimation. The results of the mentioned tests are demonstrated in the following table.

Table 3: results of Valderidge test for serial auto-correlation

The model	Test statistic	Significance level	Result
The statistical model of the first hypothesis	28.242	0.0000	Presence of serial auto-correlation
The statistical model of the second hypothesis	27.953	0.0022	Presence of serial auto-correlation

Table 4: results of cross-sectional correlation between residuals

Research model	The selected model	Test statistic	Significance level	Result
The first model	Fixed effects	3.281	0.0000	Presence of cross-sectional correlation
The second model	Fixed effects	3.251	0.0011	Presence of cross-sectional correlation

Results of testing the first research hypothesis

The first hypothesis: environmental sustainability reporting has a significant impact on the stock returns of firms listed on the Tehran Stock Exchange.

Table 5: the result of testing the first research hypothesis

The dependent variable: stock returns Estimation method: random effects					
Variable	Type of variable	Coefficient	Standard deviation	Z statistic	Significance level
Sustainability reporting	Independent	0.000	0.000	5.48	0.000
Market to book value	Control	0.000	0.000	3.87	0.000
Firm size	Control	0.004	0.000	20.09	0.036
Financial leverage	Control	0.002	0.002	0.71	0.468
Profitability	Control	0.77	0.003	195.89	0.000
Fixed coefficient		-0.005	0.002	-2.20	0.028
statistic 65114/10		0/589 :The adjusted coefficient of determination			
0/0000 :significance level		0/597:Coefficient of determination			

Considering Table 5, the significant and positive environmental sustainability reporting coefficient demonstrates the significant and positive influence of environmental sustainability reporting on stock returns. As observed, the coefficients of this variable are 0.00063, and its significance level is 0.000, which indicates a significant and positive relationship between stock returns and environmental sustainability reporting at the 95% confidence interval, which confirms the first research hypothesis. Besides, the adjusted coefficient of determination indicates that the explanatory variables can explain 58% of the changes in the dependent variable (Stock returns). Results of model estimation also reveal the significant influence of all control variables except financial leverage on the dependent variable.

Results of testing the second research hypothesis

The second hypothesis:: Financial constraints play a moderating role in the influence of environmental sustainability reporting on the stock returns of firms listed on the Tehran Stock Exchange.

Table 6: results of testing the second research hypothesis

The dependent variable: stock returns Estimation method: random effects					
Variable	Variable	Variable	Variable	Variable	Variable
Sustainability reporting	Independent	0.000	0.000	4.04	0.000
Financial constraint	Moderator	-0.000	0.000	-2.65	0.041
Sustainability reporting * financial constraint	Moderator	-0.000	0.000	-2.25	0.026
Sustainability reporting squared	Moderator	0.000	0.000	0.830	0.713
Financial constraint squared	Moderator	0.000	0.000	0.163	0.114
(Sustainability reporting * financial constraint) squared	Moderator	-0.000	0.000	-1.44	0.012
Market to book value	Control	0.000	0.001	3.85	0.000
Financial leverage	Control	0.002	0.002	0.700	0.481
Profitability	Control	0.770	0.003	195.92	0.000
Fixed coefficient		-0.005	0.002	-2.17	0.030
65133/59 The adjusted coefficient of determination0.584ki statistic 0/0000 :0.597significance level:Coefficient of determination					

Considering Table 6, the significant and positive environmental sustainability reporting coefficient demonstrates the significant and positive influence of environmental sustainability reporting on stock returns. As observed, the coefficient of this variable is 0.00059, and its significance level is 0.000, which demonstrates the significant and positive influence of environmental sustainability reporting on stock returns at the confidence level of 95%. Besides, the coefficient of financial constraint is -0.00063, and its significance level is 0.041, which indicates the significant and negative influence of this variable on stock returns of the firms listed in Tehran Stock Exchange at the confidence level of 95%. Moreover, the coefficient and significance level of the variable of Sustainability reporting * financial constraint are -0.00025 and 0.026, respectively, which confirms the moderating role of financial constraint in the influence of environmental sustainability reporting on stock returns of the firms listed in Tehran Stock Exchange. The coefficient of the influence of environmental sustainability reporting on stock returns was 0.00063 in the first model but dropped to 0.0059 in the second model after the moderating variable of financial constraint entered the model, which indicates the negative moderating role of financial constraints in the influence of environmental sustainability reporting on stock returns. On the other hand, the significance level obtained for the parent statistic is 0.0000 and (statistic 65133.59), which demonstrates that the regression model is significant. Moreover, the adjusted coefficient of determination reveals that the explanatory variables can explain 58% of the changes in the dependent variable (stock returns).

7. Conclusion and suggestions

Considering the ethical theory, the right criterion of success for firms is not merely the reported profit but is rather defined by their corporate governance, social responsibility, ethical behavior, and environmental plans (Broket&Rezaii, 2013). The expressions of firms' social responsibility and sustainable environmental, social, and governance (ESG) sustainability are used interchangeably in the literature, while the aspects of each of them can be discussed separately (Nakhily et al., 2017). The present study investigates the environmental aspect of sustainable performance as one of the significant sustainable performance dimensions. The investors cannot identify the non-profitable projects of the firm in a non-transparent reporting environment with no clear social responsibility report since clear information required to make the optimal decision is unavailable. Thus, it is impossible to tell profitable and non-profitable projects apart. The firms' tendency to play their part in social responsibility will leave a significant impact on firm performance and is followed by influences on stock price and return (Sandho& Capo, 2010). Therefore, economic units can maximize their long-term returns by reducing their adverse impacts on the community voluntarily to the extent that the idea that long-term success can be achieved by earning public trust through social support is a persisting idea among firms (Sami et al., 2008).

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On the other hand, results of empirical studies in macroeconomics and indicate that accumulated movements in financial constraints impact firm value. A set of studies on this topic have focused on the interest rate (Saa et al., 2001). The results of Kim and Stambaugh (1986) and Stock and Watson (1989) suggest that the difference between interest rates of the deposits received from depositors and granted facilities which is called interest range can act as a predictor for return on assets. HorashioSapriza and Lu Zhang (2004) demonstrated that financial constraints reduce frim value and investment rates, and these adverse effects are more significant for small firms and firms that are under financial pressure. They also demonstrated that firms with financial constraints take fewer risks and their expected returns are naturally lower than other firms. Economic enterprises with financial constraints deal with higher capital costs and financing delays, so their projects are more likely to fail, and their risk of stock price falling will increase (Ou &Ren, 2018). Financial constraint is a crucial element for investment and financial decisions in firms (Xiao & Wang, 2020). Besides, Hong et al. have stated that firms with good environmental reporting performance will have reduced financial constraints. Cheng et al. (2014) reported that better social responsibility performance is associated with less financial constraint in firms. Firms that produce more pollutions as a result of their activities are more inclined to disclose comprehensive environmental information to address the concerns of the investors (Cho & Patton, 2007).

According to the first research hypothesis and since the positive influence of environmental sustainability reporting on stock returns was confirmed, firms are recommended to put a greater focus on reflecting their performance in the field of environmental sustainability to the community so they can take advantage of its benefits given that obtaining a good return on stocks complying with the expectations of shareholders can satisfy all stakeholders –especially shareholders- since a proper amount of return is obtained in proportion to the risk taken which can result in rewards and maintaining the job position for managers. Besides, the government must adopt policies to obligate firms to disclose their environmental sustainability information to their community, given that it is the central authority in charge of preserving the environment and ensuring intergenerational rights. Moreover, most firms deal with financial constraints, which makes them plan and invest based on their available financial resources. Besides, the confirmation of the second research hypothesis indicating that financial constraints lay a moderating role in the relationship between environmental sustainability reporting and stock returns; firm managers must prevent financial constraints by suitable resource management and logical consumption of financial resources to provide the returns expected by the shareholders.

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