An Empirical Investigation of the Relation between Corporate Sustainability Performance (CSP) and Corporate Value: Evidence from Iran

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ABSTRACT

This study provides an empirical evidence on how Corporate Sustainability Performance (CSP), is reflected in the corporate value. Using a theoretical framework combining Legitimacy theory, Stakeholder theory and Agency theory, a set of hypotheses that relate the corporate value to CSP is examined. For a sample of Iranian firms, 28 components with four dimensions as Community, Environment, Employees and Governance are measured in terms of sustainability. Also to assess the corporate value as dependent variable, Q-Tobin index is used. The results show that corporate sustainability performance and its dimensions, unlike the theoretical principles and dominant theories presented in this regard, have significant inverse relationships with the corporate value at 95 percent confidence level. Such a finding amongst the Iranian companies, does not seem to be strange and unreal; because the concept of corporate sustainability is very unfamiliar and strange among senior Iranian managers of organizations, and often due to state ownership and lack of need to create a positive mindset among their customers, Iranian organizations show little interest for employing corporate sustainability principles. This study supports managers to develop effective policies related to CSP that is necessary to increase the value of corporations.

Keywords:

Corporate Value, Sustainability Performance, Corporate Sustainability Performance.

1. Introduction

Sustainability is currently a burning issue and a major cause of concern all across the globe. Sustainable development has been defined in many ways, but the most frequently quoted definition is from Our Common Future, also known as the Brundtland Report. At the World Commission on Environment and Development (WCED), Brundtland (1987:15) as Chairperson of the Commission, defined sustainability as meeting the needs of the current generation without compromising the ability of future generations to meet their own needs. The interest of investors in company’s non-financial performance has grown significantly over the past few years (Perrini, 2006). In the wake of increased regulations and growth in level of awareness of stakeholders, the concept of corporate sustainability has been assuming great importance. World Business Council for Sustainable Development (WBCSD, 2002) defined corporate sustainability as business and professional commitment to contribute to sustainable economic development, working with employees, their families, the local community and the larger society in order to improve their quality of life. Global Reporting Initiatives (GRI, 2011) defined sustainability reporting as an act of measurement, disclosure and accountability to internal and external stakeholders for organizational performance towards the objectives of sustainable development.

This has been widely proven and mentioned by researchers that in today's dynamic and complex business environment, corporate sustainability performance most probably affects corporate profitability and overall performance. Sustainability lays the foundation for maintaining and improving the company's value. Enterprises earn strategic interests as a result of the establishment of sustainability in their main strategy (Aggarwal, 2013).

Four major dimensions of corporate sustainability performance which are collected from the website of the CSRHub institution, are explained in Table (1). Every year, the aforementioned institute rates large companies in North America, Europe and Asia in terms of sustainability criteria.

Table 1. Dimensions of Corporate Sustainability

Dimension	Description
1. Community Human rights, supply chain, product quality and safety, product sustainability, community development, philanthropy.	The **Community Component** covers the company’s commitment and effectiveness within local, national and global community in which it does business. It reflects company’s citizenship, charitable giving and volunteerism. This component covers company’s human rights record and treatment of its supply chain. It also covers the environmental and social impacts of company’s products and services, and development of sustainable products, processes and technologies.
2. Environment Environmental policy, environmental reporting, waste management, resource management, energy use, climate change policies and performance.	The **Environment Component** data covers company’s interactions with the environment at large, including use of natural resources, and company’s impact on Earth’s ecosystems, compliance with environmental regulations, leadership in addressing climate change, energy-efficient operations, renewable energy, natural resource conservation, pollution prevention programs, strategy towards sustainable development and programs to engage stakeholders for environmental improvement.
3. Employees Diversity, labor rights, treatment of unions, compensation, benefits, training, health, worker safety.	The **Employees Component** includes disclosure of policies, programs, and performance in diversity, labor-relations and labor rights, compensation, benefits, and employee training, health and safety. It focuses on compliance with national laws and regulations, fair treatment of all employees, disclosure of workforce diversity data, strong labor codes, comprehensive benefits, training and development opportunities, and employee health and safety policies.
4. Governance Leadership ethics, board composition, executive compensation, transparency and reporting, stakeholder treatment.	The **Governance Component** covers disclosure of policies, procedures, board independence and diversity, executive compensation and evaluation of company’s culture of ethical leadership and compliance. This component rates factors such as – alignment of corporate policies and practices with sustainability goals; transparency to stakeholders; integration of sustainability principles from top down into day-to-day operations of company. Governance focuses on how management is committed to sustainability and corporate responsibility at all levels.

Source: www.CSRHub.com, Retrieved September 29, 2016

The concept of corporate sustainability has a close meaning with the concept of corporate social responsibility and has actually a broader meaning than it; corporate sustainability is an approach that incorporates all concepts of corporate social responsibility and the concept of corporate governance (Montiel, 2008). Despite the differences between these two concepts on the one hand, and the relatively numerous studies on the concept of corporate sustainability in the context of developed countries (like US, Europe, UK, Australia, etc.) in recent years on the other hand; unfortunately very few researches have been done by scholars and researchers concerning the concept of corporate sustainability in the context of developing and least developed countries (e.g. Iran, Malaysia, Turkey, etc.), which is a testimony to the need for research in this area. Therefore, this paper attempts to analyze the impact of overall sustainability and its four major components on the corporate value in an Iranian context.

2. Literature Review

In researches conducted on the causes and motives of disclosing information of sustainability performance, three main theories are used. Legitimacy theory, Stakeholder theory and Agency theory. These main three theories suggest that enterprises must be sustainable and include corporate sustainability in their strategic objectives. Companies must disclose their sustainability performance in a proper sustainability report. These theories primarily show the positive relationship between corporate sustainability and company performance. Generally, these theories confirm that in case of disclosing information related to organization sustainability performance being optional, managers are only willing to provide information that demonstrates positive aspects of their organization performance, to exhibit a desired image of the enterprise in the public opinion. Therefore, it is necessary to make the action of disclosing information related to the sustainability performance of organizations by competent authorities as mandatory (Lozano et al., 2015).

Sustainability performance and its impact on corporate value have emerged as important areas for research in recent years (Aggarwal, 2013). Several studies in the past decade have been carried out to investigate this relationship in developed countries. However, the results have been inconclusive, inconsistent, and often contradictory. It ranges from positive (Wagner, 2010; Artiach et al., 2010; Guidry and Patten, 2010; Schadewitz and Niskala, 2010; Burnett et al., 2011; Lourence et al., 2012; Eccles et al., 2012; Burhan and Rahmanti, 2012; Ameer and Othman, 2012) to negative (Brammer et al., 2006; Lopez et al., 2007; Detre and Gunderson, 2011) to mixed (Manescu, 2011; Arabsalehi et al., 2013) and even to insignificant relationship (Van de Velde et al., 2005; Buys et al., 2011; Adams et al., 2012; Humphrey et al., 2012). The review of literature has been presented in Table 2 given below.

2.1. Hypotheses development

Based on theoretical arguments and literature review, a major hypothesis and four minor hypotheses were developed which are shown in Table (3).

Table 2. Research Hypotheses

NO.	Study and Country	Journal	Title of article	Result
1	Van de Velde et al. (2005) - Europe	Corporate Governance: The international journal of business in society	Corporate social responsibility and financial performance	Positive, but not significant
2	Brammer et al. (2006) - UK	Financial management	Corporate social performance and stock returns	Negative
3	Lopez et al. (2007) - Europe	Journal of Business Ethics	Sustainable development and corporate performance: A study based on the Dow Jones sustainability index	Short-term negative relationship
4	Wagner (2010) - US	Ecological Economics	The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects	Positive
5	Buys et al. (2011) - South Africa	Journal of Social Sciences	An investigation of the economic performance of sustainability reporting companies versus non-reporting companies	Slightly positive, but not significant

NO.	Study and Country	Journal	Title of article	Result
6	Burnett et al. (2011) - Developed Countries	Accounting and the Public Interest	Eco-effective management: An empirical link between firm value and corporate sustainability	Positive
7	Ameer and Othman (2012) - Developed Countries	Journal of Business Ethics	Sustainability practices and corporate financial performance: A study based on the top global corporations	Positive and bidirectional relationship
8	Burhan and Rahmanti (2012) - Indonesia	Journal of Economics, Business and Accountancy Ventura	The impact of sustainability reporting on company performance	Positive
9	Lourence et al. (2012) - North America	Journal of business ethics	How does the market value corporate sustainability performance?	Positive

Table 3. Research Hypotheses

Row	Hypothesis	Description
1	Main Hypothesis 1	Sustainability performance of company has an impact on its value.
2	Secondary Hypothesis 1-1	Community-related performance of company has an impact on its value.
3	Secondary Hypothesis 1-2	Employees-related performance of company has an impact on its value.
4	Secondary Hypothesis 1-3	Environment-related performance of company has an impact on its value.
5	Secondary Hypothesis 1-4	Governance-related performance of company has an impact on its value.

3. Methodology

To test the above hypotheses, the panel data analysis is used. In this study by employing direct observation method, content analysis of Board reports is used. Meaning that in this study, to collect theoretical background and literature review, library resources are used; and for data analysis, financial statements and activity reports of the board of Iranian firms listed in TSE are used. Financial data are extracted from databases such as Rahavardnovin which hold financial data of Iranian firms listed in TSE. Then the collected data are classified through Microsoft Excel and final analysis are performed with the help of econometric software, Eviews.

3.1. Sample, variables and model

3.1.1. Sample

The statistical population included all listed companies on Tehran Stock Exchange in the period 2010 to 2014. In this study, sampling was carried out through systematic elimination method and the sample volume will be equal to the number of companies present in the statistical population that meet the following conditions:

1) Listed before 2010 in the Tehran Stock Exchange and have been active in the stock until 2014.
2) In terms of increased comparability, the end of their fiscal year should be ending in March, and remain unchanged in the period 2010 to 2014 fiscal year.
3) Some listed companies, including banks and financial institutions, investment companies, financial intermediaries, holding companies, which have separate reporting structures, will be removed from the study.
4) Their required management information (especially explanatory notes of financial statements) and their sustainability performance information (contained in the report of the Board of Directors) should be available every five years.
5) Its stock trading in the period 2010 to 2014 except for the usual period for holding the General Assembly, should has not stopped.

After introducing the above mentioned restrictions, the number of sample will be reduced to 105 companies and finally, all members of the sample community will be considered as samples which according to the study period, this number is 525 year-firm.

3.1.2. Variables

Dependent variable is company's value. In the present study, in order to assess the company's value as a dependent variable the Tobin's Q index (simple model) is used, which is calculated according to equation (1) (Llewellyn and Badrinath, 1997:80):

Where:

$$Q_s = \frac{VOCSILOY + EMVOPSILOY + BVLTLILOY + BVCLILOY}{BVTAILOY} \quad (1)$$

VOCSILOY: Value of customary share in the end of year.

EMVOPSILOY: Estimation of market value of prime share in the end of year.

BVLTLILOY: Book value of long-term debts in the end of year.

BVCLILOY: Book value of current liabilities in the end of year.

BVTAILOY: Book value of total assets in the end of year.

Independent variable is Corporate Sustainability performance. Sustainability performance of corporations based on criteria of the institute CSRHub are divided into four dimensions of: Community-related performance, Environment-related performance, Employees-related performance and Governance-related performance. In the present study, to evaluate the three variables of: Community-related performance, Environment-related performance, Employees-related performance that refers to corporate social responsibility, are done according to the indices of the American Institute known as KLD and a number of 21 components were introduced to measure these variables in Table (4). First, we will analyze the reports of the Board of Directors of the corporations per year and will study the disclosure of the 21 components for each company. If any of the factors mentioned in the report is disclosed in the company's board reporting, it will be given a value of 1 and otherwise, its value will be 0.

Moreover, to measure Governance-related performance as the fourth dimension of sustainability performance, we have used the seven components illustrated in the Table (4). From the 7 components of corporate governance, only two components of non-executive board members and the percentage of free float shares have a relative scale that for converting them into artificial variables, we have done it as follows. First the total average of these variables is calculated for each year and then for companies with a percentage of non-executive members or the percentage of free float higher than the average population, we assign value 1 and the rest are given a value of 0. Other components of Governance-related performance are also dummy variables.

Finally, in order to convert acquired scores of each dimension to relative scale, the acquired total scores will be decided by the maximum obtainable score of each dimension. Also, the sustainability performance score of the corporations will be obtained by adding the scores of the four dimensions.

We include the following control variables in our model:

Size	The natural logarithm of total assets.
Leverage	the book value of total liabilities divided by the book value of total assets at the end of the financial year t.
Risk	beta coefficient (β) is the coefficient of systematic risk. In this study, beta factor is used to control the company's risk and information about it is obtained from the software Rahavardnovin.

3.1.3. Model

Finally, the models used in this study for the main hypothesis and sub-hypotheses were as (2) and (3):

$$Q_{i,t} = \alpha_0 + b_1.SP_{i,t} + b_2.SIZE_{i,t} + b_3.LEV_{i,t} + b_4.RISK_{i,t} + \varepsilon_{it} \quad (2)$$

$$Qi,t = \alpha 0 + b1.COMi,t + b2.ENVi,t + b3.EMPi,t + b4.GOVi,t + b5.SIZEi,t + b6.LEVi,t + b7.RISKi,t + \varepsilon it \quad (3)$$

Table 4. Coding the dimensions and components of the proposed model of corporate sustainability

Dimensions / Components	Description / Title	Code
Dimensions	Community-related performance	CO
	Environment-related performance	EN
	Employees-related performance	EM
	Governance-related performance	GO
The components of Community-related performance	support or grants to community	CO1
	Awarding grants to charities	CO2
	Supporting industries and local communities	CO3
	Financing of projects related to public health	CO4
	Connection with scientific centers, research and participate in academic and professional conferences	CO5
	Observing and compliance with laws and regulations and civil society	CO6
The components of Environment-related performance	Recycling by reusing discarded materials	EN1
	Efficient use of natural resources in order to reduce potential waste	EN2
	Granting financial assistance for the Conservation of Nature and the Environment	EN3
	Pollution control (air, water, land)	EN4
	Investments undertaken in order to reduce the damaging environmental effects	EN5
	Cooperation with institutions or organizations environmentalists	EN6
	energy saving	EN7
	Having standards ISO 14001 ،IS0 50001 and OHSAS 18001	EN8
	Observing and compliance with environmental laws and regulations	EN9
The components of Employees-related performance	Profit sharing programs and rewards to employees	EM1
	Loans and other benefits for employees	EM2
	Education and empowerment in social and environmental areas	EM3
	Programs related to sports, entertainment and recreation staff	EM4
	Programs related to safety and physical and mental health staff	EM5
	Observing and compliance with laws and regulations of Labour and Social Welfare	EM6
The components of Governance-related performance	The ratio of non-executive members of the Board of Directors	GO1
	Dual role of Director	GO2
	Institutional ownership	GO3
	Public or private ownership	GO4
	Being the parent company	GO5
	The type of auditor	GO6
	The percentage of free float shares	GO7

4. Results

4.1. Descriptive Statistics of Variables

To provide an overview of the key features of study variables, some of the concepts of descriptive statistics of these variables include the number of observations, mean, median, standard deviation, coefficient of skewness and kurtosis coefficient, are illustrated in Table (5).

4.2. Hypothesis testing

In this research, in order to estimate models we have employed econometric techniques with panel data approach during the years 2010 to 2014. For this purpose, before estimating the final models, unit root tests and identification in the model were studied. Finally, after determining the estimation method, estimation of models was performed.

4.2.1. Stationary test

Before estimating the models, to ensure absence fabrication followed by uncertain results, the stationary (reliability) of variables was studied using unit root tests of Levin, Lin and Chu and phillips perron. The mentioned tests are among the most important unit root tests in panel data. Results of unit root test variables are provided in Table (6).

Table 5. Descriptive statistics of research variables

Variables	Number of Observations	Mean	Median	SD	Skewness coefficient	Kurtosis coefficient
Q Tobin	525	2/91	1/56	8/46	9/77	108/93
Sustainability performance	525	0/59	0/57	0/12	0/19	2/78
Community-related Performance	525	0/46	0/5	0/19	0/3	2/35
Environment-related performance	525	0/63	0/67	0/19	-0/33	2/51
Employees-related performance	525	0/64	0/67	0/19	-0/11	2/39
Governance-related performance	525	0/61	0/57	0/14	0/23	2/81
Size	525	14/4	13/95	1/66	0/73	3/02
Leverage	525	0/58	0/59	0/22	0/99	9/08
Risk	525	0/77	0/68	0/93	-0/7	15.4

Table 6. variables unit root test results

Determine the optimal lag with Schwarz Bayesian criterion			The null hypothesis: the existence of unit root		
Variables	Test Levin, Lin and Chu		Phillips-Perron test		Level Differencing
	T-statistic	Prob.*	T-statistic	Prob.*	
Tobin's Q	-14/60	0/0000	258/66	0/0124	In level
Sustainability performance	-17/42	0/0000	285/97	0/0003	In level
Community-related Performance	-22/74	0/0000	115/58	0/0000	one
Environment-related performance	-25/17	0/0000	129/64	0/0000	one
Employees-related performance	-22/34	0/0000	89/87	0/0001	one
Governance-related performance	-15/29	0/0000	98/50	0/0007	one
Size	-22/51	0/0000	403/00	0/0000	one
Leverage	-26/52	0/0000	294/08	0/0001	In level
Risk	-32/81	0/0000	379/11	0/0000	In level

4.2.2. Co-integration test

Given that according to the Table (6) variables of Community-related Performance, Environment-related performance, Employees-related performance, Governance-related performance and size, in level were not reliable and became reliable by one level differencing, so cointegration test must be performed for these variables so in case of cointegration for these variables in the long run, we will be able to trust the results of the models estimation. Kao cointegration test was used in the present study the results of which are shown in Table (7).

Table 7. Kao cointegration test results

T statistic	The significance level
-13/6726	0/0000

Due to the possibility of statistic t, we can say that Kao test at a significance level of one percent, indicates the existence of cointegration relationship between the variables in the long-term.

4.3. The results of testing variables

Based on panel data econometrics literature, before estimating the models, it is necessary that using test statistic F Limer of data homogeneity and as a result test using panel data estimation method. Also, in order to choose the appropriate estimation method from among fixed and random effects methods, we should use Hausman test statistic.

Results from F Limer and Hausman test for models of hypothesis and sub-hypothesis, are given in Table (8). F Limer test results for both models indicate significance by using panel data rather than ordinary least squares method. The results of Hausman test statistic to select the appropriate estimation method shows that to estimate both models, using fixed effects compared to the random effects method is more appropriate. The results of the estimation of models of main and sub-hypotheses are provided in Table (8).

Table 8. The results of the estimation of models of main and sub-hypotheses

main hypothesis		Secondary hypotheses	
explanatory variables	**significance level coefficient**	**explanatory variables**	**significance level coefficient**
Sustainability Performance	-7/1546 0/0000	Community-related Performance	-3/4708 0/0000
Size	-1/2569 0/0000	Environment-related performance	1/9119 0/0034
Leverage	-1/0912 0/0083	Employees-related performance	-2/2255 0/0000
Risk	0/0627 0/0828	Governance-related performance	-3/0130 0/0000
Constant factor	25/8082 0/0000	Size	-1/1866 0/0000
Adjusted R Squared	0/6861	Leverage	-1/0280 0/0030
F statistic Significance level	11/6043 0/0000	Risk	0/1108 0/0018
Durbin-Watson statistic	1/7012	Constant factor	24/1540 0/0000
		Adjusted R Squared	0/7832
		F statistic Significance level	18/0564 0/0000
		Durbin-Watson statistic	1/7043
Test	Significance level	Test	Significance level
F test Limer	0/0000	F test Limer	0/0000
Hausman test	0/0004	Hausman test	0/0047
F and Hausman test interpretation	Estimation using fixed effects	F and Hausman test interpretation	Estimation using fixed effects

As Table (8) shows, sustainability performance of corporations, as an independent variable according to significance level of less than 5%, has a significant correlation with Tobin's Q index as a measure of firms value which due to the negative beta coefficient for it, the direction of this relationship is reversed. Consequently, due to the existence of a significant relationship, assuming H1 hypothesis regarding the effect of performance sustainability on corporation is confirmed and hypothesis H0 will be rejected.

Also Community-related Performance, Environment-related performance, Employees-related performance, Governance-related performance as independent variables, and dimensions of sustainability performance of firms with regard to the significance level of less than 5%, have significant relationships with Tobin's Q index as a measure of corporations value at a 95 percent of confidence level, which due to the negativity of the beta coefficient value in all cases except for Environment-related performance, the direction of these relationships are generally reversed. As a result, with regard to the existence of a significant relationship, assuming sub-hypotheses H1 (1-1) to (1-4) on the impact of Community-related Performance, Environment-related performance, Employees-related performance, Governance-related performance on firm value is confirmed and hypothesis H0 will be rejected.

Also, according to a significance level of less than 5% in both models, control variables of Size and Leverage have a significant inverse relationship with Tobin's Q index as a measure of value of companies at a 95 percent confidence level. Also, Risk control variable due to the significance level of 5% in the main hypothesis model, have no significant relationship with the companies value at 95 percent confidence level, but due to the significance level of less than 5% in the secondary hypotheses model, has a significant relationship with the firm value at a 95 percent confidence value.

In addition to these, according to a significance level of less than 5%, the F statistic in both models, the overall fitted regression models were found to be generally significant, and this suggests that explanatory variables of both models have a significant effect on Tobin's Q variable. Also, according to the suitable Adjusted R Squared of both regression models, explanatory variables explain appropriate percentages of variations of Tobin's Q variable. Also Durbin-Watson statistic of both fitted models shows that the fitted models have no serious autocorrelation.

One of the classic assumptions of linear regression, is homogeneity of variance. The assumption of homogeneity of variance is a direct result of assuming the distribution of the dependent variable as normal. It occurs especially in the data which are cross-sectional in nature. In the present study, because the data are combined, we expect to face heteroskedasticity. On the other hand, the use of GLS, eliminates the problem of heteroskedasticity . Given that both the main hypothesis and sub-hypotheses models, have been estimated through generalized least squares method, the heteroskedasticity problem will be resolved.

5. Discussion and Conclusions

The results showed that corporate sustainability performance and its dimensions, unlike the theoretical principles and dominant theories presented in this regard, have significant inverse relationships with the corporate value at 95 percent confidence level. Although the results of present study are not consistent with the results of Wagner (2010) study, but the existence of significant inverse relationship between the mentioned variables, does not mean that organizations must ignore the principles of corporate sustainability. Because the existence of such a finding among the Iranian companies, does not seem to be strange and unreal; because the concept of corporate sustainability is very unfamiliar and strange among senior Iranian managers of organizations, and often due to state ownership and lack of need to create a positive mindset among their customers, Iranian organizations show little interest for employing corporate sustainability principles. Thus the results of this study will help managers to develop effective policies needed to increase corporate value.

In short, the negative impact of corporate sustainability performance on their values can be summarized in the following lines:

1) The novelty of the concept of sustainability performance in Iran (due to the fact that impact of sustainability performance and social responsibility take place in the long-term).
2) Lack of effective support from governments and other authorities for companies that are committed to social functions and their sustainability.
3) Influence of political and economic fluctuations and exchange rate changes and the like, on corporate performance and corporate value is very high. And this overshadows the good influence of sustainability performance on the improvement of society's attitude towards corporate sustainability performance and consequently, its results in the lack of impact by sustainability performance on financial indices and firm’s value.

Also, the results from both models showed that from control variables, Firm’s Size and Financial Leverage have meaningful relationship with corporate value; So the mentioned control variables compared with other control variable of the study (Risk), better justifies the firm’s values.

Suggestions for future research are also listed below:

1) This study is among the first studies carried out inside the economic climate of Iran on the relationship between corporate value and sustainability performance; so this study can be considered a model for future research. For example, future studies could investigate the relationship of other dimensions of corporate sustainability performance with their value, which have been raised in various researches in other countries. We can also use other criteria of corporate values to measure its relationship with sustainability performance.
2) In order to carry out future researches it is suggested that, researchers do this study for each of the active industries in stock exchange, so as to obtain more accurate results for every industry.
3) It is recommended for other researchers to examine the relationship between corporate

sustainability performance with financial economic criteria (such as value added, market value added, economic value added).

Scientific research is often limited by limitations that damage the stability and reliability of the research findings. For example, lack of social performance reporting disclosure in the activities report of some companies board of directors, is considered as a restriction of access to information on independent variable (sustainability performance), which would remove some companies from the research samples. Also, in similar studies in other countries, a greater number of companies have been selected compared to our research sample (1000 firms for example). Second, their research includes a greater number of years. And thirdly, their data is in the form of a database, which leads to spending less time for collecting and spending more time for analyzing the data.

References

1) Adams, M., Thornton, B., and Sepehri, M. (2012). 'The impact of the pursuit of sustainability on the financial performance of the firm'. Journal of Sustainability and Green Business, Vol. 1, No. 1.
2) Aggarwal, P. (2013). 'Impact of sustainability performance of company on its financial performance: A study of listed Indian companies'. Global Journal of Management and Business Research, Vol. 13, No. 11.
3) Ameer, R., and Othman, R. (2012). 'Sustainability practices and corporate financial performance: A study based on the top global corporations'. Journal of Business Ethics, Vol. 108, No. 1, pp. 61-79.
4) Arabsalehi, M., Sadeghi, G., and Moeinaddin, M. (2013). 'The Relationship between Corporate Social Responsibility and Financial Performance of the Firms Listed on Tehran Stock Exchange'. Empirical Research in Accounting, Vol. 3, No. 1, pp. 1-20.
5) Artiach, T., Lee, D., Nelson, D., and Walker, J. (2010). 'The determinants of corporate sustainability performance'. Accounting and Finance, Vol. 50, No. 1, pp. 31-51.
6) Brammer, S., Brooks, C., and Pavelin, S. (2006). 'Corporate social performance and stock returns: UK evidence from disaggregate measures'. Financial management, Vol. 35, No. 3, pp. 97-116.
7) Brundtland, G. (1987). 'Our Common Future'. United Nations World Commission on Environment and Development (Brundtland Commission), Oxford: Oxford University Press.
8) Burhan, A. H. N., and Rahmanti, W. (2012). 'The impact of sustainability reporting on company performance'. Journal of Economics, Business and Accountancy Ventura, Vol. 15, No. 2, pp. 257-272.
9) Burnett, R. D., Skousen, C. J., and Wright, C. J. (2011). 'Eco-effective management: An empirical link between firm value and corporate sustainability'. Accounting and the Public Interest, Vol. 11, No. 1, pp. 1-15.
10) Buys, P., Oberholzer, M., and Andrikopoulos, P. (2011). 'An investigation of the economic performance of sustainability reporting companies versus non-reporting companies: A South African perspective'. Journal of Social Sciences, Vol. 29, No. 2, pp. 151-158.
11) CSRHub (n.d.). 'CSRHub Schema Description'. Retrieved September 29, 2016, from http://www.csrhub.com/content/csrhub-dataschema/.
12) Detre, J. D., and Gunderson, M. A. (2011). 'The Triple Bottom Line: What is the Impact on the Returns to Agribusiness?' International Food and Agribusiness Management Review, Vol. 14, No. 4.
13) Eccles, R. G., Ioannou, I., and Serafeim, G. (2012). 'The impact of a corporate culture of sustainability on corporate behavior and performance'. National Bureau of Economic Research Cambridge, MA, USA.
14) GRI: Global Reporting Initiatives (2011). 'Sustainability Reporting Guidelines'. Retrieved September 04, 2016, from www.globalreporting.org.
15) Guidry, R. P., and Patten, D. M. (2010). 'Market reactions to the first-time issuance of corporate sustainability reports: Evidence that quality matters'. Sustainability Accounting, Management and Policy Journal, Vol. 1, No. 1, pp. 33-50.
16) Humphrey, J. E., Lee, D. D., and Shen, Y. (2012). The independent effects of environmental, social and governance initiatives on the performance of UK firms. Australian Journal of Management,

Vol. 37, No. 2, pp. 135-151.

17) Lopez, M. V., Garcia, A., and Rodriguez, L. (2007). ‘Sustainable development and corporate performance: A study based on the Dow Jones sustainability index’. Journal of Business Ethics, Vol. 75, No. 3, pp. 285-300.
18) Lourenço, I. C., Branco, M. C., Curto, J. D., and Eugénio, T. (2012). ‘How does the market value corporate sustainability performance?’ Journal of Business Ethics, Vol. 108, No. 4, pp. 417-428.
19) Lozano, R., Carpenter, A., and Huisingh, D. (2015). ‘A review of theories of the firm and their contributions to Corporate Sustainability’. Journal of Cleaner Production, No. 106, pp. 430-442.
20) Manescu, C. (2011). ‘Stock returns in relation to environmental, social and governance performance: Mispricing or compensation for risk?’ Sustainable development, Vol. 19, No. 2, pp. 95-118.
21) Montiel, I. (2008). ‘Corporate social responsibility and corporate sustainability separate pasts, common futures’. Organization and Environment, Vol. 21, No. 3, pp. 245-269.
22) Ngwakwe, C. C. (2009). ‘Environmental responsibility and firm performance: evidence from Nigeria’. International Journal of Humanities and Social Sciences, Vol. 3, No. 2, pp. 97-103.
23) Perrini, F. (2006). ‘The practitioner's perspective on non-financial reporting’. California Management Review, Vol. 48, No. 2, pp. 73-103.
24) Schadewitz, H., and Niskala, M. (2010). ‘Communication via responsibility reporting and its effect on firm value in Finland’. Corporate Social Responsibility and Environmental Management, Vol. 17, No. 2, pp. 96-106.
25) Van de Velde, E., Vermeir, W., and Corten, F. (2005). ‘Corporate social responsibility and financial performance’. Corporate Governance: The international journal of business in society, Vol. 5, No. 3, pp. 129-138.
26) Wagner, M. (2010). ‘The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects’. Ecological Economics, Vol. 69, No. 7, pp. 1553-1560.
27) WBCSD: The World Business Council of Sustainable Development (2002). ‘Corporate social responsibility: the WBCSD’s journey’. Retrieved September 15, 2016, from www.wbcsd.org