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Sustainability Performance in the Canadian Corporate Sector: A Comprehensive Analysis and Implications for Future Development

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Abstract - We live in a progressive community, where economic, environmental, and social concerns surpass national and corporate boundaries. Organizations that act in a sustainable routine not only help maintain the welfare of the globe and people, but they also generate businesses that will persist and prosper in the long run.

The relevance of the present study originates from a modest attempt to help focus attention on the need for a better coordination of sustainability practices for managing the firm's financial performance in one of the fastest growing and the other, one of the most developed economies of the world. The study attempts to scrutinize the influence of Sustainability Practices on Firm's Financial Performance in context of Canadian Corporate Sector using econometric tools.

A literature review on empirical evidence of Relationship between Sustainability Practices and Financial Performance of select studies across the globe are presented in form of a summary of the study, author, year, country, sample size, time-period and technique adopted along with reported results.

To investigate dynamics of the long-run relationship between, Corporate Sustainability Practices and Financial Performance in Canadian corporate sector for the period 2007-2008 to 2019-2020, the Model intends to employ Co integration and Granger Causality Test using an ARDL framework. This model uses the annual data for variables – Return on Assets, Return on Capital Employed, Earnings per share, Economic, Environmental and Social Performance Indicators. The study perceives a linear association amongst Sustainability Practices and Financial Performance for panel data for the period of 1997-98 to 2019-2020 of 250 companies each listed on TSX. The resultant co integrating relationship between Sustainability Practices and Financial Performance is consistent with the findings of other research in the field.

Keywords - Corporate Sustainability, Environment-Sustainability-Index, Social-Sustainability-Index, Economic-Sustainability-Index, Return-on-Assets, Return on Capital Employed, Earnings-per-Share, Sustainable Development

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INTRODUCTION

We must address the imperative challenge of environmental sustainability to sustain living beings across the globe. Concerns like climate change, water availability, water quality, air pollution, environmental footprint needs to be addressed. A balance between economic and social considerations must be struck to resolve environmental issues. The long-term sustainable environmental progress needs to be made that is also the economic and social progress for mankind.

In absence of strategy regarding global sustainable development means that long-term focus and vital fundamental direction have been missing. Inadequate performance measurement and reporting have resulted in a dearth of evidence and statistics about whether initiatives around corporate sustainability are working or how they should be accustomed over time. The Performance pointers have not been precise & all-inclusive adequately in an opportune way to encourage decision-making enough. The targets and objectives at national and

departmental level have been very imprecise, ambiguous, equivocal, and distracted that they flop to make any material and factual difference. One of major problems at global level is that core government planning and reporting have been different from Sustainable development planning rather than being an integrated one.

As businesses modernize to better secure their long-term feasibility, accountants and auditors can assist as principal agents for change by applying their skills and competences to develop sustainability strategies, expedite effective application, precise measurement, and reliable business reporting. The finance function can enhance a proportion of value regarding making sure that facts and figures associated to sustainability – predominantly statistics that enters public terrain – is created and managed with essential level of diligence.

Nowadays businesses face summative expectations for taking a vigorous role in meeting world's ecological and societal challenges. As industries and other organizations rise to circumstance by assuming and executing sustainable business practices, it will be indispensable for finance and accounting experts to accept a greater management position in sustainability and bring their abilities to abide to warrant long-term feasibility of their organizations.

RATIONALE OF THE STUDY

The present era is of exemplary shift of business firms from traditional bottom-line goals to corporate and environmental sustainability goals. The corporate firms are encouraged constantly to bring about a strategic change in their processes. The concept of triple bottom line says that organizations need to put equal effort and give equal importance to society, economy, and environment. The contemporary decade has observed a paradigm shift of corporate firms, along with breeding social and environmental needs, from traditional financial expectations to corporate sustainability.

The WCED (World Commission for Environment and Development) has encouraged business firms to bring a calculated change in management process by balanced focus on triple bottom line. The concept of triple bottom line stresses on putting equal effort to society, environment, and economy. Such societal, economic, and environmental performances must be communicated in form of Sustainability Report.

Conferring to numerous examination reports, there is a snowballing drift of disseminating sustainability reporting around world, granting significance of reproducing reports is extremely high in developed economies.[1] Accordingly, maximum number of research concerning Corporate Sustainability subjects are strenuous in developed countries.[2]

OBJECTIVES OF THE STUDY

The present study endeavors to examine impact of Corporate Sustainability Practices on Firm's Financial Performance in context of Canadian Corporate Sector. The precise objectives can be drawn as follows:

- To develop an understanding of the dynamics of Corporate Sustainability Practices in Canada.
- To identify major company-specific determinants of Corporate Sustainability Practices, and Firm's Financial Performance in Canadian corporate sector for a sample of 250 companies each listed on Toronto Stock Exchange.
- To examine whether Corporate Sustainability Practices composition affects financial performance of companies in Canadian Corporate Sector.

DATA SOURCES AND METHODOLOGY

The study is based on secondary data. The purpose of study is to address concerns stated in objectives by investigating annual data on company-specific variables in Canadian corporate sector. The study combines conspicuous factors affecting firm's financial performance to estimate relationship of financial performance with environmental sustainability performance, economic sustainability performance and social sustainability performance of companies. The sample data is 250 companies each from TSX for period running from 1997-98 to 2019-20. The sample data are collected based on market capitalization.

LITERATURE REVIEW

Comprehending the unwavering association between corporate sustainability and financial performance is imperative as organizations are recognizing sustainable development as intentional objective and is progressively being ingrained into organizational structure.

As emphasized by Bernadette M. Ruf, Krishnamurty Muralidhar, Robert M. Brown, Jay J. Janney, Karen Paul (2001), in examination of association between modification in Corporate Social Performance and Financial Performance is constructed on erstwhile exploration in two dissimilar ways. First, contrasting to former studies, this research observed how variation in Corporate Sustainability Practices recounts to fluctuations in Corporate Financial Performance. This offers a healthier control over redundant aspects over and above providing a more complex assessment than just exploratory level of

[1] *In developed countries particularly USA, UK, select European countries, Germany, France and Japan (KPMG, 2011, 2013; Carrot & Stick, 2013).*

[2] *Lo & Sheu, 2007; Isabel, Castelo, Curto & Teresa, 2012; Tracy, Lee, Nelson & Walker, 2010; Lopez et al., 2007.*

Corporate Sustainability Practices. The extent of variation in Corporate Sustainability Practices was made plausible by utilizing cumulative measure of Corporate Sustainability Practices established by Ruf et al. (1998).

The "Does it pay to be good?" study by Caroline Flammer (2013) scrutinizes consequence of corporate social responsibility on pecuniary performance. Precisely, they have examined consequence of corporate social responsibility - associated stakeholder applications that authorization by a trivial brim of divisions. The passageway of such close applications is analogous to an arbitrary obligation of corporate social responsibility to corporations and hereafter offers a hygienic contributory approximation. Dependable with interpretation that corporate social responsibility is a appreciated reserve, they have originate that assuming a corporate social responsibility - associated application principals to greater pecuniary performance. The consequence is punier for establishments with developed levels of corporate social responsibility, signifying that corporate social responsibility is a reserve with diminishing peripheral proceeds. In conclusion, reliable with established philosophy, they originate that consequence is sturdier for corporations functioning in productions where recognized customs of corporate social responsibility are sophisticated. This research is originally to offer experimental indication on contributory consequence of corporate social responsibility on corporate financial performance.

The Environmental Responsibility and Firm Performance: Evidence from Nigeria research by Collins C. Ngwakwe (2006) appraised conceivable outcome of corporate sustainable practices on organization's performance in Nigerian engineering firms. The pragmatic examination in this research demonstrates that, within Nigerian background, observance to maintainable commercial practices impact performance of organizations, thus vindicating the aim of this research.

DATA ANALYSIS

To investigate dynamics of long-run relationship between, Corporate Sustainability Practices and Financial Performance in Canadian corporate sector for period 2007-2008 to 2019-2020, Model intends to employ Cointegration and Granger Causality Test using an ARDL framework. This model uses annual data for the variables – Return on Assets, Return on Capital Employed, Earnings per share, Economic, Environmental and Social Performance Indicators. The panel data used in study are expressed in natural logarithms. The sample for study uses 250 companies from TSX each for consecutive fiscal years 2007-08 to 2019-20.

$$LNCFP(ROA) = \alpha + \beta_1.LNCSP(EC) + \beta_2.LNCSP(ENV) + \beta_3.LNCSP(SOC) + € \quad (1)$$

$$LNCFP(ROCE) = \alpha + \beta_1.LNCSP(EC) + \beta_2.LNCSP(ENV) + \beta_3.LNCSP(SOC) + € \quad (2)$$

$$LNCFP(EPS) = \alpha + \beta_1.LNCSP(EC) + \beta_2.LNCSP(ENV) + \beta_3.LNCSP(SOC) + € \quad (3)$$

Equations given above expresses corporate financial performance measured in terms of Return on assets (Equation 1), Return on Capital Employed (Equation 2) and Earnings per share (Equation 3) as a function of economic, social and environmental performance measures.

In above equations, linear relationship among log-transformed variables is considered. The log-log model parameters relates to flexibility of its data model. Therefore, a constant elasticity over all values of data set is assumed by log-log model. The applicability of log transformation is only when all observations of data set are positive. As per equations above, betas are variables to be estimated and € is error term that is meant to capture variables that are not included in model. The slope parameter (beta), for this functional form, is a direct measure of elasticity.

ESTIMATION FRAMEWORK

The Corporate Financial Performance of any company strives to attain a judicious balance between its goals of profit maximization and sustainable growth. The goal of profit maximization is recognized to be maximization of earnings per share, return on assets and return on capital employed. Considering these objectives, present study assesses responsiveness of corporate sustainability practices measured in terms of environmental, social, and economic performance indicators of company.

To investigate dynamics of long-run relationship between corporate financial performance and corporate sustainability practices, present study employs cointegration using an ARDL model.

VARIABLES OF THE STUDY

The variables of study are discussed below:

Return on Assets: Return on Assets is a financial ratio that demonstrates percentage of revenue a business grosses relative to its global belongings.

Return on Capital Employed: The Return on Capital Employed is a financial ratio that calculates a corporate's appositeness and productivity with which its capital employed.

Earnings per Share: Earnings per share is pecuniary worth of earnings per outstanding contribution of common stock for a business.

Sustainability performance indicators (SPIs): SPIs are utilized to estimate a business's performance and to audit and account for on impending development. *Economic performance indicators* comprise direct economic value engendered, direct economic value disseminated, pecuniary insinuations and supplementary

jeopardies & perils and prospects due to climate change. *Social Performance Indicators* include assistances administered to full-time workforces, fraction of workers covered by communal agreements, and minimal discern period(s) to be provided for discharge in incident of noteworthy effective changes. *Environmental performance indicators* include proportion of resources utilized that are fritter (treated or untreated) derived from peripheral sources and unswerving utilization of energy sectioned by principal source.

ESTIMATION TECHNIQUES

The main objective of this study is to investigate underlying determinants of Corporate Financial Performance. It is also its purpose to see whether Sustainability Practices of company has any bearing on Financial Performance in Canadian corporate sector in long run and what is role of other factors in growth of Corporate Financial Performance.

LIMITATIONS OF DATA

The SPIs (like Economic, Environmental and Social Performance Indicators) is calculated using Index used to quantify qualitative factors. A shortcoming of this type of index is that it will be biased if composition of factors making up these indicators is changing, and weights are not applied and regularly updated. This is more likely to be an issue for a fast-changing economy like Canada.

Moreover, reporting of sustainability practices has been used which are good indicators of sustainability performance of company. The reason any other parameter it has not been employed in current analysis for measuring sustainability performance (other than EPI, EnvPI and SocPI) is because of lack of consistency of their methodology; in turn inhibiting comparability of data. The weighing system has not been used to calculate a real effective SPIs because of lack of reporting on part of companies about SPIs. Thus, some important caveats such as those noted above, need to be borne in mind when interpreting results obtained from present study.

EMPIRICAL RESULTS

Empirical Results are given in Appendix A.

CONCLUSIONS

Going over research outcome of considering relationship between Corporate Sustainability, and Corporate Financial performance in Canadian publicly traded corporations it can be firm that a significant relationship can be experientially determined for sample during time period 1997-1998 to 2019-2020.

The findings further confirm that companies' sustainability practices have long run impact on company's financial performance. Our results pertaining to long run and short run relationship between sustainability performance and financial performance also correspond to studies of Raj et al. (2008), and Audu and Amaegberi (2013).

The short run results also suggest that a contemporaneous relationship between sustainability performance and Financial performance does exist. Short run impact of structural breaks on data cannot be negated keeping in view statistical significance of coefficients of EcPI, EnvPI and SocPI. The lagged values of dependent variable are significant for all lags taken in analysis, in explaining variation in Financial Performance during period of investigation.

The robustness of estimated models has been carried out by several diagnostic tests such as serial correlation, and Heteroscedasticity test. The results of testing for serial independence of errors, using an LM test show that since p value is greater than 0.05, as can be seen from Appendix-C; hence we do not reject null hypothesis of no serial correlation at specified lags. We tested for Heteroskedasticity, and it can be observed from Appendix-C that there is no Heteroskedasticity in our model, which is a positive result for our model.

The long run results of analysis, shows positive significant coefficient of Return on Assets which is consistent with findings of Khundrakpam and Pattnaik (2010), Makochekanwa (2011) and Khumalo (2013) who found evidence of long run relationship between Corporate Financial Performance and Corporate Sustainability Practices in their respective studies.

The elasticity coefficients of Corporate Financial Performance are negative and significant, investing in sustainability practices and giving back to environment & society makes Corporate Financial Performance, measured in terms of Return on Assets, Return on Capital Employed and Earnings per Share, to rise. The above outcomes sates that long-run elasticity coefficients of Economic, Environmental and Social Performance Indicators induce Return on Assets, Return on Capital Employed, Earnings per Share to go in Canadian Corporate sector.

The resultant cointegrating relationship between Sustainability Practices and Financial Performance is consistent with findings of Bhattacharya et.al. (2008), who found long run relationship between these variables in Canadian Corporate Sector for period 1997 to 2007. Our results also detect long-run relationship between sustainability practices and financial performance. This finding, however, shares a conclusion with Sek et al. (2015) and Cunado and Gracia (2005).

RECOMMENDATIONS AND AGENDA FOR FUTURE RESEARCH

A Green Commendation Policy is recommended which can provide guidelines and recommendations

for incorporating environmental concerns into financial policymaking. United States have similar programs such as Environmental Response, Compensation, and Liability Act. Debtor and mortgagor engaged in protection of environment by way of utilizing renewable sources of energy may be offered loans with abridged rate of interest. The rate of interest offered on loans for industries creating pollution higher than permissible limits must be higher than ones in permissible limits. Further research on valuation systems to appraise credit clients and impact of banks offering lower rates of interest to industries abiding by prescribed pollution norms on financial performance of companies is recommended.

Corporate associations need to embrace and execute corporate-extensive environmental policy to remain acquiescent and endeavor to diminish their impact on environment. The appropriation and execution of natural administration frameworks as system for incorporating corporate-wide ecological strategies, projects, and practices is developing among both local and worldwide organizations around globe. Future research on rejoinder to legislature, businesses articulate and executed environmental policies to assist organizations decrease their environmental impressions, their green obligations to stakeholders and to assess incentive for organizations embracing and executing corporate environmental policy is recommended.

The organizations must stand a chance to accrue financial benefits for employing and instigating commercial environmental administration practices since they should be able to stimulate innovation, novelty, and advancement to make over operations, cut down costs and save environment. Environmental administration has taken a vital standing in organizations lately as businesses endeavor to get by in a profoundly regulated markets and furthermore improve their profits as well as triple bottom line. The selection and execution of environmental administration frameworks as system for incorporating corporate-wide natural approaches, projects, and practices is developing among both household and global organizations around globe. The collective inference sketched anyway is that reasonable environmental administration practice is not in itself adverse to firm since consistence is required and additional advantages, for example, improvement of operational proficiency could be gathered from environmental administration practices. The finding of this exploration will be crucial to help controllers to define reasonable approaches and draw in corporate sectors successfully in process to advance intentional proactive corporate ecological administration. Further research on environmental administration processes is recommended which must be advanced to stretch organizations with a contrivance to be able to transport and validate upgraded environmental performance.

REFERENCES

1. Abdul, G.K. (2012). The Relationship of Sustainability Practices with Firm Performance: A Study of Engineering Sector of Pakistan. International Journal of Accounting and Financial Reporting, 2(1), 2162-3082.
2. Abor, J. (2005). The Effect of sustainability practices on Profitability: An Empirical analysis of Listed Firms in Ghana. Journal of Risk Finance, 6, 438-47.
3. Botosan CA.1997. Disclosure level and cost of equity capital. The Accounting Review 72: 323–349.
4. Bowman, E.: 1978, 'Strategy, Annual Reports, and Alchemy', *California Management Review***20**, 64-71.
5. Campbell, J. L. 2007. "*Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility*". Acad. Management Rev. 32(3) 946–967.
6. Campello M. 2002. Sustainability practices and product markets interactions: evidence from business cycles. Journal of Financial Economics 68(3): 353-378.
7. Frank MZ, Goyal VK. 2009. Sustainability Practices: which factors are reliably important? Financial Management 38(1): 1 – 37.
8. Friend, I., Lang, L., (1988), An empirical test of impact of managerial self-interest on sustainability practices, Journal of Finance, 43, p. 271-281.
9. Gorton, G., Rosen, R., (1995), Corporate Control, Portfolio Choice, and Decline of Banking, Journal of Finance, 50, 1377-1420.
10. Graham, J., Harvey, C., (2001), The theory and practice of corporate finance: evidence from field, Journal of Financial Economics, 60, p. 187-243.
11. Hall BH, Berndt E, Levin RC.1990. The impact of corporate restructuring on industrial research and development. Brookings Papers on Economic Activity. Microeconomics: 85-124.
12. Healy P, Palepu K. 1993. The effect of firms" financial disclosure strategies on stock prices. Accounting Horizons 7(1): 1–11.
13. Jung K, Kim YC, Stulz RM.1994. Investment opportunities, managerial decisions, and security issue decision. NBER Working Paper No. W4907.
14. Kale JR, Noe TH.1995. Dilution costs, underinvestment, and utility regulation under asymmetric information. Journal of Regulatory Economics 7(2): 177-197.
15. Kayo, E.K., Kimura, H., (2011), Hierarchical determinants of sustainability practices, Journal of Banking & Finance, 35, 358-371.
16. KPMG. (2013). *KPMG international survey of corporate responsibility reporting 2013*.
17. Lambert R, Leuz C, Verrecchia R. 2007. Accounting information, disclosure, and cost

of capital. Journal of Accounting Research 45(2): 385-420.
18. Lang M, Lundholm R. 1993. Cross-sectional determinants of analysts ratings of corporate disclosures. Journal of Accounting Research 31: 246–271.
19. Lang M, Lundholm R. 2000. Voluntary disclosure during equity offerings: reducing information asymmetry or hyping stock. Contemporary Accounting Research 17(4): 623–662.
20. McGuire, J., A. Sundgren and T. Schneeweiss: 1988, 'Corporate Social Responsibility and Firm Financial Performance', *Academy of Management Journal* **31**, 854-872.
21. Prahalathan, B., Ranjany, R.P., (2011), The Impact of sustainability practices-Choice on Firm Performance: Empirical Investigation Of listed Companies in Colombo Stock Exchange, Srilanka, International Journal of Research in Commerce & Management, 2(4), p. 12-16.
22. Pratheepkanth, P. (2011). Sustainability practices and financial Performance: Evidence from selected Business Companies in Colombo Stock Exchange, Sri Lanka, Journal of Arts, Science and Commerce, 2(2), 171-173.
23. Preston, L.: 1978, 'Analyzing Corporate Social Performance: Methods and Results', *Journal of Contemporary Business* **7**, 135-150.
24. Raffournier B. 1995. The determinants of voluntary financial disclosure by Swiss listed Companies. The European Accounting Review 4(2): 261-80.
25. Rajan, R. G.& Zingales, L. (1995). What do we know about sustainability practices? Some evidence of international data. Journal of Finance, 50, 1421-1460.
26. Rao, N. V. & Al-Yahyaee, K. H. M & Syed, L. A. M (2007). Sustainability Practices and Financial Performance: evidence from Oman. Indian Journal of Economics and Business, 1-23. Robson, C. (2002). Real World Research: A Resource for Social Scientist and practioners , Research oxford Blackwell.
27. Sanyal P, Bulan LT. 2008. Regulatory risk, market risk, and firm financing choices: Evidence from U.S. electricity market restructuring. Working Paper, Brandeis University and SSRN. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=781230
28. Saunders, M., Lewis, P.& Thornhill, A. (2009). Research methods for business students.5th ed Italy: Prentice Hall.
29. Schipper K. 1981. Discussion of voluntary corporate disclosure: The case of interim reporting. The Journal of Accounting Research 19: 85–88.
30. Titman S. 1984. The effect of sustainability practices on a firm's liquidation decision. Journal of Financial Economics 13(1): 137-151.
31. Verrecchia R. 1983. Discretionary disclosure. Journal of Accounting and Economics 5: 179–194.
32. Waddock, S. A., S. B. Graves. 1997. *"The corporate social performance-financial performance link"*. Strategic Management J. 28(4) 303–319.

APPENDIX-A

The results from estimation framework as discussed in previous section are presented in this section. It includes test for presence of Unit Root Test, Lag selection criteria, testing for presence of long run relationship through ARDL modeling. The long run cointegration results and value of ECT derived from long run results has been shown.

Testing for Unit Roots (Break Point Test and ADF): The starting point in estimating panel series data sets is to test level of integration of variables under consideration. The cointegrating relations (ARDL) is studied on error term that need to be I(0) regardless of degree of integration of variables (I(1) or I(2)). Therefore, testing procedure of stationarity is still valid. For this purpose, Break Point Unit Root test and standard Augmented Dickey-Fuller (ADF) test have been exercised to check order of integration of variables. The results of this test have been given in Appendix-B.

According to Break point test, LNROA, LNROCE and LNEPS have a clear unit root and hence, are non-stationary. However, upon taking first difference, all of them become stationary at 1 per cent level of significance. LnSPI is stationary at levels for Intercept value but has a unit root at 1 percent with both Trend and Intercept. In case of LNEPI and LNEnvPI too we can reject null hypothesis of unit root after taking first difference. LNSPI is found to be stationary both with intercept and trend and with intercept as well.

Assessing results of ADF unit root test from appendix-B and C, similar results are found as LNROA, LNROCE and LNEPS have a clear unit root and hence, are non-stationary at all levels of significance. All of these are found to reject null hypothesis of unit root upon first differencing. For LNDE we fail to reject null hypothesis of a unit root at levels with only Intercept as well as with trend and intercept (variable is non-stationary at 1 and 5 per cent level of significance). Here too LNGFD is found to be stationary both with intercept and trend (at 1 per cent) and with intercept (at 5 per cent) as well.

The variables LNROA, LNROCE, LNEPS, LNDE, LNEPI and LNEnvPI are I(1), however LNSPI as per breakpoint unit root test and ADF test is stationary at levels, i.e., it exhibits I(0). Thus, results reveal that all variables are non-stationary at level except for Social Performance Index. Therefore, it is a strong

justification for ARDL as an estimation technique to test existence of long run relationship among variables.

ARDL Specification Results

ARDL specification results can be categorized into three parts, namely, Bounds test approach to cointegration, results for estimated long run coefficients and error correction term of ARDL model.

The F-statistics presented in Appendix-D shows that all statistics cross upper band of critical values as tabulated by Pesaran et al. (2001), thereby rejecting null hypothesis of no cointegration in all models. This implies that there exists a long run relationship among variables in respective models.

Once long run relation is evident from Bounds Test, we proceed to determine Estimated Long-run results – results shown in Appendix-E.

The long run results presented in Appendix-E indicate that all variables except GDP_GAP are significant at 1 per cent level of significance in determining effect of Corporate Sustainability Practices between 2007-2020. The coefficients of LNCSP, LNDE are positive indicating that increases in corporate sustainability practices & disclosure generates long run positive impact on Corporate Financial Performance in Canada. The elasticity coefficient of Corporate Financial Performance shows that a 1% increase in other independent variables causes a 46% increase in Corporate Financial Performance for a company. The long run results of our analysis given by Appendix-D, shows positive significant coefficient of Return on Assets which is consistent with findings of Khundrakpam and Pattnaik (2010), Makochekanwa (2011) and Khumalo (2013) who found evidence of long run relationship between Corporate Financial Performance and Corporate Sustainability Practices in their respective studies.

The elasticity coefficients of Corporate Financial Performance are negative and significant showing that optimum ROCE, investing in sustainability practices and giving back to environment & society makes Corporate Financial Performance, measured in terms of Return on Assets, Return on Capital Employed and Earnings per Share, to rise. The above outcomes sates that long-run elasticity coefficients of Economic, Environmental and Social Performance Indicators induce Return on Assets, Return on Capital Employed, Earnings per Share to go in Canadian Corporate sector.

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APPENDIX-B

Break Point Unit Test

VARIABLES	LEVEL		FIRST DIFFERENCE	
	CONSTANT	CONSTANT & TREND	CONSTANT	CONSTANT & TREND
LNROA	-3.0469 (0.4264)	-3.5765 (0.6448)	-7.1229 <(0.01)	-7.4354 <(0.01)
LNROCE	-7.2452 < (0.01)	-6.8549 <(0.01)	-12.8772 <(0.01)	-6.5245 (0.01)
LNEPS	-8.0239 <(0.01)	-4.1137 (0.3065)	-5.2726 <(0.01)	-6.126 (0.01)
LNEPI	-2.8850 (0.7459)	-3.5379 (0.6700)	-6.8553 <(0.01)	-6.7239 <(0.01)
LNEnvPI	-2.8812 (0.7476)	-3.0027 (0.9107)	-6.2307 <(0.01)	-6.4486 <(0.000)
LNSPI	-2.3251 (0.7854)	-3.2542 (0.9521)	-5.63241 (0.6523)	-6.5254 (0.0122)

Note – Brackets show *Vogelsang (1993) asymptotic one-sided p-values.

APPENDIX-C

ADF Unit Root Test

VARIABLES	LEVEL		FIRST DIFFERENCE	
	CONSTANT	CONSTANT & TREND	CONSTANT	CONSTANT & TREND
LNROA	0.9237 (0.9954)	-0.5669 (0.9781)	-6.4842 (0.000)	-6.5755 (0.000)
LNROCE	-2.9175 (0.0478)	-4.1555 (0.0081)	-5.4202 (0.000)	-5.3816 (0.0002)
LNEPS	-1.088 (0.7163)	-3.1987 (0.0927)	-4.2300 (0.0011)	-4.5345 (0.0035)
LNEPI	-1.5357 (0.5105)	-2.006 (0.589)	-5.5872 (0.000)	-5.7057 (0.000)
LNEnvPI	-2.2875 (0.1795)	-2.2363 (0.4628)	-5.7811 (0.000)	-5.7473 (0.000)
LNSPI	-0.11089 (0.9440)	-1.1304 (0.9353)	-6.8698 (0.000)	-6.8389 (0.000)

Note: Brackets show MacKinnon (1996) one-sided p-values.

APPENDIX-D

Result of Bounds Test

ARDL Model MODEL: LNROA = f (LNCSP, LNDE)		
Model	F Statistics	k
LNROA (2007-2019)	14.45173***	5
Critical Values	LOWER BOUND I(0)	UPPER BOUND I(1)
10% Level	2.26	3.35
5% Level	2.62	3.79
1% Level	3.41	4.68

'k' represents no. of independent factors

APPENDIX-E

Long Run Results

Dependent variable is LNROA, ARDL (6,8,0,6,2,0) selected based on Akaike information criteria				
Regressor	Coefficient	Standard Error	T-Ratio	(Prob)
LNCSP	0.112268***	0.012999	8.636511	0.0000
LNDE	0.464849***	0.021991	21.137830	0.0000
D1	0.101615***	0.019077	5.326515	0.0000
D2	0.117031***	0.018143	6.450362	0.0000
C	4.622982***	0.422668	10.937625	0.0000
@TREND	0.067795**	0.026655	2.543449	0.0138

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