ISSN 2454-8596
www.vidhyayanaejournal.org
An International Multidisciplinary Research E-Journal

A Study of Environmental Accounting Disclosure and Its Impact on Finance Factor Value Accounting For Selected Research Unit of Energy Sector by P-Value of Multi Regression Model

Krutika Nayanbhai Vyas

Abstract

Rising pressures on the environment and increasing environmental consciousness have generated the need to account for the various interactions between all sectors of the economy and the environment. As we all know that Conventional national accounts concentrate on the measurement of economic performance and growth as reflected in market activity. For an extreme complete assessment of the sustainability of growth and expansion, the scope and coverage of economic accounting need to be broadened to include the use of non-marketed natural assets and losses in income-generation resulting from the depletion and degradation of natural capital. However, Conventional accounts do not concern the commonly used depreciation modification for human-made assets to ordinary assets. In the present study researcher is focusing selected unit of energy sector for impact on value accounting finance factor by dimensional environmental accounting disclosure practice.

Key Word: EADI, Value Accounting for Finance Factor

INTRODUCTION

Nowadays, companies cause a lot of environmental problems because of profit maximization, the endless needs, rapidly advancing technological developments, unconscious consumption of natural resources, as they execute their operations. At first glance, these efforts in order to remove environmental pollution mean additional cost to companies in the short term nevertheless they can have a chance of cost minimization in medium and long term and even additional income in this process. To meet the needs of business management and related people about the environment, environmental accounting has started up. For the present study researcher is focusing selected two unit of power sector for impact of dimensional environmental accounting disclosure practices on value accounting finance factor.

OBJECTIVE OF THE STUDY

To study the impact of five parameters of Independent variable Environmental Accounting Disclosure Index on five parameters dependent variable value accounting of finance factor by P-value of Multi regression model of selected unit of power sector of India.

- To study the impact of **Environment Accounting** on Five parameters of value accounting of finance factor

ISSN 2454-8596
www.vidhyayanaejournal.org
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An International Multidisciplinary Research E-Journal

- To study the impact of **Environment objectives/policies** on five parameters of value accounting of finance factor
- To study the impact of **Environmental Reporting** on Five parameters of value accounting of finance factor
- To study the impact of **Environmental Audit** on Five parameters of value accounting of finance factor
- To study the impact of **Environment Management** on Five parameters of value accounting of finance factor

RESEARCH DESIGN

(i) **SAMPLE DESIGN:** There are various organizations working in power sector in India Researcher has considered BPCL and RIL for the present study by simple random sampling techniques for the present study.

(ii) **DATA COLLECTION:** The present study is mainly based on secondary data and the required data is collected from Annual Published Report of selected units, various Magazines, Periodicals related power sectors, related websites and subject matter is also used.

(iii) **PERIOD OF STUDY:** The study period is to be converted 9 years; from 2011-12 to 2019-20.

(iv) **TOOLS & TECHNIQUES:** For the present study, Ratio-Analysis for value accounting as an Accounting tools and p-value multi regression model is used as tools of Statistics.

[I] Value Accounting for Finance Factor

(a) **Enterprise Value to Net Operating Revenue:** Enterprise value to earnings before interest and tax (EV/EBIT) or EV/NOR is a measurement to whether a share in a company is cheap or expensive, relative to competing firms or the wider market. The EV/EBIT or EV/NOR is a modified multiplier of the P/E ratio that addresses the weaknesses of the P/E ratio. So instead of using just the firm's share price, it uses enterprise value; which includes debt. The EV is then compared to earnings, before, rather than after tax and interest.

(b) **EV to EBITDA:** The EV/EBITDA ratio is better as it values the worth of the entire company. The ratio helps determine the true earning potential of the business. The ratio proves a great tool for valuing companies that are making losses at the net earning level, but are profitable at the EBITDA level.

(c) **Market Value to Net Operating Revenue:** Market Value to Net Operating Revenue ratio helps investors analyze how much they should pay for a stock based on its current earnings. This is why the Market Value to Net Operating Revenue ratio is often called a price multiple or earnings multiple. Investors use this ratio to decide what multiple of earnings a share is worth. In other words, how many times earnings they are willing to pay.

(d) **Price to Book Value Ratio:** The price to book value ratio, or PBV ratio, compares the market and book value of the company. Investors find the P/B ratio useful because the book value of equity provides a relatively stable and intuitive metric that can be easily compared to the market price.

(e) **Earning Yield:** The earnings yield refers to the earnings per share for the most recent 12-month period divided by the current market price per share. The earnings yield (which is the inverse of the P/E ratio) shows the percentage of a company's earnings per share. This metric is used by many investment managers to determine optimal asset allocations and is used by investors to determine which assets seem underpriced or overpriced.

[II] P- Value Multi Regression Model

The p-value for each independent variable tests the null hypothesis that the variable has no correlation with the dependent variable. If there is no correlation, there is no association between the changes in the independent variable and the shifts in the dependent variable. In other words, there is insufficient evidence to conclude that there is effect at the population level. Hypothesis for the present study is on the base of 5% significant level that means 0.05 values. If P – Value of respective parameters under study falls above 0.05 then Null Hypothesis is accepted otherwise Alternate Hypothesis is accepted.

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www.vidhyayanaejournal.org
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[A] BPCL

Table 1
P-Value for Independent Variable Environmental Accounting Disclosure Index [EADI] and dependent Variable Value Accounting of Finance Factors of BPCL for the period 2011-12 to 2019-20 for Multi Regression Model

H_0 : There is no significant effect of Independent Variable Environmental Accounting Disclosure Index [EADI] on dependent Variable Value Accounting of Finance Factors of BPCL for the period 2011-12 to 2019-20 for Multi Regression Model if P – Value > 0.05

H_1 : There is significant effect of Independent Variable Environmental Accounting Disclosure Index [EADI] on dependent Variable Value Accounting of Finance Factors of BPCL for the period 2011-12 to 2019-20 for Multi Regression Model if P – Value < 0.05

EADI		Ratio	P- Value	P – Value > 0.05 OR < 0.05	Accepted Hypothesis	Significant effect on dependent Variable Value Accounting For Finance Factor
I	Environment Accounting	EV/NOR	0.20	> 0.05	H_0	No
		EV/EBITDA	0.99	> 0.05	H_0	No
		MC/NOR	0.049	< 0.05	H_1	Yes
		PBV Ratio	0.02	< 0.05	H_1	Yes
		EY	0.56	> 0.05	H_0	No
II	Environment Objectives/ policies	EV/NOR	0.87	> 0.05	H_0	No
		EV/EBITDA	0.31	> 0.05	H_0	No
		MC/NOR	0.97	> 0.05	H_0	No
		PBV Ratio	0.74	> 0.05	H_0	No
		EY	0.35	> 0.05	H_0	No
III	Environmental Reporting	EV/NOR	0.00	< 0.05	H_1	Yes
		EV/EBITDA	0.00	< 0.05	H_1	Yes
		MC/NOR	0.00	< 0.05	H_1	Yes
		PBV Ratio	0.00	< 0.05	H_1	Yes
		EY	0.00	< 0.05	H_1	Yes
IV	Environmental	EV/NOR	0.00	< 0.05	H_1	Yes

	Audit	EV/EBITDA	0.00	< 0.05	H_1	Yes
		MC/NOR	0.00	< 0.05	H_1	Yes
		PBV Ratio	0.00	< 0.05	H_1	Yes
		EY	0.00	< 0.05	H_1	Yes
V	**Environment Management**	EV/NOR	0.00	< 0.05	H_1	Yes
		EV/EBITDA	0.00	< 0.05	H_1	Yes
		MC/NOR	0.00	< 0.05	H_1	Yes
		PBV Ratio	0.00	< 0.05	H_1	Yes
		EY	0.00	< 0.05	H_1	Yes

[B] RIL

Table 2 **P-Value for Independent Variable Environmental Accounting Disclosure Index [EADI] and dependent Variable Value Accounting of Finance Factors of RELIANCE INDUSTRIES LIMITED for the period 2011-12 to 2019-20 for Multi Regression Model**
H_0 : There is no significant effect of Independent Variable Environmental Accounting Disclosure Index [EADI] on dependent Variable Value Accounting of Finance Factors of RELIANCE INDUSTRIES LIMITED for the period 2011-12 to 2019-20 for Multi Regression Model if P – Value > 0.05
H_1 : There is significant effect of Independent Variable Environmental Accounting Disclosure Index [EADI] on dependent Variable Value Accounting of Finance Factors of RELIANCE INDUSTRIES LIMITED for the period 2011-12 to 2019-20 for Multi Regression Model if P – Value < 0.05

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EADI		Ratio	P- Value	P – Value > 0.05 OR < 0.05	Accepted Hypothesis	Significant effect on dependent Variable Value Accounting For Finance Factor
I	Environment Accounting	EV/NOR	0.15	> 0.05	H_0	No
		EV/EBITDA	0.53	> 0.05	H_0	No
		MC/NOR	0.17	< 0.05	H_0	No
		PBV Ratio	0.82	< 0.05	H_0	No
		EY	0.17	> 0.05	H_0	No
II	Environment Objectives/ policies	EV/NOR	0.92	> 0.05	H_0	No
		EV/EBITDA	0.99	> 0.05	H_0	No
		MC/NOR	0.94	> 0.05	H_0	No
		PBV Ratio	0.86	> 0.05	H_0	No
		EY	0.95	> 0.05	H_0	No
III	Environmental Reporting	EV/NOR	0.00	< 0.05	H_1	Yes
		EV/EBITDA	0.00	< 0.05	H_1	Yes
		MC/NOR	0.00	< 0.05	H_1	Yes
		PBV Ratio	0.00	< 0.05	H_1	Yes
		EY	0.00	< 0.05	H_1	Yes
IV	Environmental	EV/NOR	0.00	< 0.05	H_1	Yes

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	Audit	EV/EBITDA	0.00	< 0.05	H_1	Yes
		MC/NOR	0.00	< 0.05	H_1	Yes
		PBV Ratio	0.00	< 0.05	H_1	Yes
		EY	0.00	< 0.05	H_1	Yes
V	Environment Management	EV/NOR	0.00	< 0.05	H_1	Yes
		EV/EBITDA	0.00	< 0.05	H_1	Yes
		MC/NOR	0.00	< 0.05	H_1	Yes
		PBV Ratio	0.00	< 0.05	H_1	Yes
		EY	0.00	< 0.05	H_1	Yes

From the above two table it is evident that –

- Three out of five parameters has no significant effect on dependent Variable Value Accounting for Finance Factor by First parameter of independent variable Environment Accounting on BPCL under study during research period. While entire five parameters have not any significant effect on dependent variable value accounting for finance factor by first parameter of independent variable Environment Accounting on RIL under study during research period.
- Entire five parameters have not any significant effect on dependent Variable Value Accounting for Finance Factor by Second parameter of independent variable Environment Objectives/ Policies on BPCL and RIL under study during research period.
- Entire five parameters have significant effect on dependent Variable Value Accounting for Finance Factor by third parameter of independent variable Environment Reporting on BPCL and RIL under study during research period.
- Entire five parameters have significant effect on dependent Variable Value Accounting for Finance Factor by fourth parameter of independent variable Environmental Audit on BPCL and RIL under study during research period.
- Entire five parameters have significant effect on dependent Variable Value Accounting for Finance Factor by fifth parameter of independent variable Environment Management on BPCL and RIL under study during research period.

Conclusion

From the above study it is found that three out of five dimensions on Environmental accounting and reporting practices have significant effect on dependent variable value accounting finance factor during research period.

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