Mind Set of Indian Accounting Professionals and Environmental Accounting

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Abstract

Those who do not plan, cannot control and it is difficult for them to control if they do not have an accurate measurement. Those who do not measure cannot report. If not reported, the regulating authorities and governments will not have an effective control on pollution to fulfill the global requirements. The mindset of financial accounting professionals who prepare financial accounts and reporting to shareholders and management is positive which would help the Government of India for the implementation of environmental accounting and reporting to the stake holders. Structured questionnaire were used and collected as primary data. The accounting professionals were in the opinion that reporting on environment related issues of the company would give positive impact on the Indian companies.

Keywords: Financial Statement, Environment Accounting, Reporting, Professionals

Introduction

A research conducted by Augsburg a German researcher indicates that in 7.9 microgram per cubic meter increase in soot and other PM, there is 15% higher rate of insulin resistance, a market of Type 2 diabetes. For pre-diabetics, the risk increased by almost 46% for each unit increase in air pollution also has insulin resistance. According to the World Health Organisation, 22 of the 50 urban areas with worst ambient air pollution are from India. A huge leap to production of 100 gigawatts of solar power by 2022 is part of the plan which is increased from 20GW. Recently, in May 2016, India produced 7568 MW from solar. It has to achieve 100GW which is equivalent to 1,00,000 Mega Watt. In order to achieve this target of 100GW, it requires $1 trillion worth of investment by 2030. The budget of

2015-2016 had allocated around $500 million for energy generation through solar energy. 55 countries which account for 55% of global emissions ratify the Paris agreement on 2nd October 2016 where US and China contribute 38% of global pollution. With the ratification, India will have to start working on its energy plans which have become part of the Paris process in reduction of usage of fossil fuel especially coal related power production. According to KPMG report, the solar prices have come down by 15%. Environmental accounting, reporting has to be made compulsory for all registered companies in India and also for those companies having trade operations in India. If we cannot measure, we cannot control it. If we have to control, we have to plan. If those pollutions are not reported by polluters, Government may loose control over pollutants. It becomes difficult to achieve global requirements to control pollution.

Methods and Material

A study based on 350 Accounting Professions who are involved in the preparation of financial accounting and reporting from South India.

The frequency distribution was prepared based on questionnaire and statistically analysed by using F-ratio and factor analysis

Objectives of the study

The following are the objectives of the study:

1. To study the updated knowledge and awareness of professional accountant who prepares and reports on financial accounting on environmental accounting after SEBI's guidelines on Responsibility reporting.
2. To study the present knowledge and awareness of professional accountant who prepares and reports on financial accounting on Sustainability reporting by GRI by Indian companies.
3. To analyse whether the "Environmental Reporting Firm" will have a better market price or not.

Review of literature

UN CSD 2001 and Deegan (2003), Horngren and Foster (1987) - Under environmental accounting, both monetary units (MU) and Physical units(PU) are considered to be important. This is not new under traditional accounting. 1/5 of large companies in high carbon sectors do not report on carbon. Example: Mining and Chemicals.

Akerlof(1970), The firms which earn more profit are more likely to disclose more information on pollution comparing to less profitability firm who screen themselves from less profitable firm.

Auperle, K.E, Carroll, A.B & Hatfield, J. (1985), " An Empirical examination of the relationship between Corporate Social Responsibility and Profitability" Academy of Management Review, 28(2), pp446-463.

Bassey Eyo Basseyl, Sunday O.Effiok, E.Eton(2013) organizational performances were enhanced due to environmental cost management which had influence on profitability. Lack of environmental reporting and disclosure standards significantly affected the reporting and uniformity in disclosure of environmental related information.

Belkaoui and Kirkpin(1989) There was a significant pair of correlation but an insignificant regression co-efficient for the return on assets and corporate socio-economic environmental accounting disclosure. It was also identified that different terms are used under social responsibility accounting such as: Social Performance Information, Social Audit, Social Accounting, Social Responsibility Accounting and Social and Environmental Reporting.

Charles J. Coate & Karen J. Frey (2011) Accountant's eye shades may soon be turning away from money green to environmental green. Why? Because environmental accounting and reporting are of increasing importance for businesses.

Coven et.al.(1987) found no association between environmental accounting and profitability.

Disu and Gray(1998) founded that less than quarter of companies disclosed environmental, equal opportunities and consumer areas. The study was conducted for the years 1994 and 1995.

European companies have made a lot of reports on targets for carbon reduction. Asia Pacific are the least likely to publish targets for carbon reduction.

European companies score the highest in carbon reporting, whereas, the US, Asia Pacific countries including China are the least likely to report on carbon.

Half of the companies which reported on carbon earned the benefit of carbon reduction.

Kisenyi and Gray (1998) observed that out of the four companies selected, none of them made any environmental disclosure. They concluded that social and environmental disclosure in Uganda was given little importance, low grade and scarce.

KPMG's Survey Of Carbon Reporting Of 250 Largest Companies (2015) in KPMG professionals analysed reporting from 4500 companies across 45 countries. It is one of the most comprehensive and authoritative reports on non-financial reporting. This study reports on Carbon Reporting based on top 100 companies in each of the 45

countries. It also assessed the quality of CR reporting from the world's 250 largest companies. The findings were as follows:

Only 1/3rd of the companies target reduction of carbon explained why they had chosen those target years.

Rees (1995) As there was no proper standard on environmental accounting, each author proposed different frameworks.

S**.C. Bansal and Shuchi Pahuja(2010)** In their paper, they identified that environmental management had received increasing attention of the investors, creditors, employees, government, and other stakeholders in the corporate sector. Although many studies had examined corporate environmental disclosure practices all over the world, only a few had addressed the issues relating to environmental accounting.

Shil & Iqbal (2005), The most widely used technique for analysis of narratives in annual financial reports was Content Analysis. In order to deviate from this, Multiple Regression Models were used. It was observed that most of the studies were conducted in developed world and very few studies focused on developing countries such as India.

There was a lack of consistency in the carbon information. Therefore almost it was impossible to compare accurately one company's carbon performance with another.

Transport and leisure sector scored highest in Carbon reporting, whereas oil and gas companies scored the lowest. Less than 1/10th of the companies reporting carbon, reported on emission of such companies.

Analysis and Interpretation

Organizational policies and management support

Factor analysis technique is used to identify the underlying factors that organizational policies and management support in the companies. The seven factors were identified namely S1, S2 ……..S7 is given below table

Table 1.01 Reliability Analysis on Factor Stimulating

No. of cases	No. of Items	Reliability Coefficient Alpha
350	7	.689

Table 1.01 shows that the reliability analysis on the factor stimulating, reliability analysis scale ranges between 0.00 and 1.0 (were 0.0 = no reliability & 1.0= perfect analysis). From the table given above, it is observed that the reliability of coefficient alpha (α) for the 350 cases of 7 items is .689 (scale range between 0.0 to 1.0) which shows the reliability of the given factors.

Table 1.02

Kaiser-Meyer-Olkin	Measure of Sampling Adequacy	.762
	Approx. Chi-Square	493.783
Bartlett's Test of Sphericity	Sig	.000

The above Table 1.02 reveals Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of Sphercity have been applied, to the resultant correlation matrix to test whether the relationship among the variables has been significant or not as shown in table. The result of the test shows that with the significant value of 0.000 there is significant relationship among the variable chosen. KMO test yields a result of 0.762 which states that factor analysis can be carried out appropriately for these seven variables that are taken for the study.

Table 1. 02 Rotated Factor Loadings on Stimulating

Reporting practices on environmental protection	Factor		Communalities
	1	2	
Increasing trend of shareholders' concern – S1	.187	-.729	38.978
Demand for environmental management – S2	.764	.197	54.667
Sustainable development – S3	.707	.264	67.818
Current development in corporate – S4	.737	-.027	78.363
Reporting practices on environment accounting – S5	.759	.003	87.609
Incomplete and inadequate industries practice –S6	.601	-.191	94.920
Awareness of the measurement –S7	.292	.683	100.000
Eigen value	2.728	1.098	3.826
Per cent of variance	38.330	16.336	54.667
Cumulative per cent	38.330	54.667	

Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization
Rotation converged in 3 iterations

Table 1.02 illustrates that the principal component analysis and rotated factor loading method is used for stimulating factors. From the above table, it is observed that out of 7 factors, 2 factors are identified by the rotation method. The total per cent of variation in the factors show 54.667 per cent and total Eigen value of the factors is 3.826.

Clustering of sectors into factors

Factors	Sectors	Rotated factor Loadings
I (2.967 per cent)	Demand for environmental management –S2	.764
	Reporting practices on environmental accounting-S5	.759
	Current development in corporate –S4	.737
	Suitable development- S3	.707
II (1. 603 per cent)	Increasing trend of shareholders' concern – S1	-.729
	Awareness of the measurement – S7	.683
	Incomplete and inadequate industries practice –S6	-.191

Reporting practices and guidelines

Table 1. 03: Individual environmental accounting policies

Company	Respondents	Per cent
Yes	58	17
No	203	58
Not sure	89	25
Total	350	100

Source: compute results based on primary data

The above table 1.03 is based on the question related to whether company where the individual works follows any environmental accounting policies or not, 17% of the respondents said 'yes'; 58% expressed 'No' and 25% of the respondents expressed 'Not sure'.

Table 1.04 : Acceptable guidelines and measurements

Company	Respondents	Per cent
Yes	125	36
No	186	53
Not sure	39	11
Total	350	100

Source: compute results based on primary data

Table 1.04 Responses to a question on whether company follows acceptable guidelines and measurements: 36% of the respondents expressed 'Yes'; 53% expressed "No'; and 11% expressed "Not sure'.

Motives of business organizations and knowledge

Table 1.05 : Environmental reporting

Required	Respondents	Per cent
Yes	275	79
No	47	13
Not sure	28	8
Total	350	100

Source: compute results based on primary data

From Table:1.05 relates to a question whether Environmental Accounting is practiced in the respondents' companies or not: 79% of the respondents expressed 'Yes'; 13% expressed 'No' and 8% of the respondents expressed 'Not sure'.

Table 1.06 : Environment Accounting and Quantitative reporting

Implementation	Respondents	Per cent
Yes	43	12
No	173	50
Can't say	134	38
Total	350	100

Source: compute results based on primary data

From Table:1.06 relates to a question whether environmental accounting and reporting quantitatively or not: - 12% of the respondents expressed 'Yes'; 50% of the respondents expressed 'No' and 38% of the respondents expressed 'Can't say'. It means majority of the companies were not expressed quantitatively.

Table 1.07 : Measure of Environment Accounting

Measure	Respondents	Per cent
Separate Legislation	241	69
SEBI Guidelines	82	23
Voluntary	27	8
Total	350	100

Source: compute results based on primary data

From Table:1.07 relates to a question whether whether separate legislation or SEBI's guidelines or voluntary environmental accounting to be imposed:- 69% of the respondents expressed for 'State Legislation'; 23% of the respondents expressed for 'SEBI's guidelines' and 8% expressed for 'voluntary'.

Awareness of report preparer / Educationist

Table 1.08 : Environmental Accounting

Awareness	Respondents	Per cent
Voluntary	209	60
Compulsory	40	40
Total	350	100

Source: compute results based on primary data

From Table: 1.08 relates to a question whether environmental accounting should be made voluntary or compulsory:- 60% of the respondents expressed to 'Voluntary" ; 40% of the respondents expressed to "Compulsory".

Table 1.09 : Reports

particulars	Respondents	Per cent
Quantitatively	89	25
Qualitatively	39	11
Both	222	64
Total	350	100

Source: compute results based on primary data

From Table: 1.09 whether reporting on environmental Accounting should be made qualitatively, quantitatively and both, 25% of the respondents expressed that it should be quantitatively; 11% of the respondents expressed that it should be qualitatively and 64% of the respondents expressed both quantitatively and qualitatively.

Table 1.10 : Methods

particulars	Respondents	Per cent
Yes	115	33
Not sure	215	61
No	20	6
Total	350	100

Source: compute results based on primary data

From Table:1.10 related to a question whether selected South based companies follow any methods to measure environmental accounting; 33% expressed to "Yes'; 61% of the respondents expressed to 'Not Sure' and 6% expressed to "not sure".

Table 1.11 : Course on environmental accounting

Professional Institute	Respondents	Per cent
Big Four CA firms	142	40
Universities	80	23
GRI	87	25
Others	41	12
Total	350	100

Source: compute results based on primary data

From Table:1.11 related to a question whether the respondents have a knowledge on courses on Environmental Accounting offered by universities/ professional institutions:- 40% of the respondents expressed to 'Big Four CA firms'; 23% of the respondents expressed to 'Universities' and 25% of the respondents expressed 'GRI' conducts courses on Environment; and 12% expressed that the courses run by others without mentioning specific name of the institution.

Table 1.12 : Environmental Information

Various Stake holders	Respondents	Per cent
Yes	305	87
No	15	4
Can't say	30	9
Total	350	100

Source: compute results based on primary data

The Table: 1.12 whether environmental information are useful to stakeholders or not:- 87% of the respondents said it is 'Useful', 4% of the respondents said 'No' and 9% of the respondents expressed to 'Can't say'.

Table 1.13 : Reports of environmental accounting

Company	Respondents	Per cent
Yes	305	87
No	45	13
Total	350	100

Source: compute results based on primary data

The table 1.13 related to a question whether Environmental accounting are reported by Indian companies or not:- 87% of the respondents expressed that 'Yes' and 13% of the respondents said 'No'. Therefore it is concluded majority of the respondents are aware that South Indian companies are reporting on environmental issues.

Relationship between Environmental cost and profitability

Table 1.14 : Environmental cost disclosure and profitability

Relationship	Respondents	Per cent
Yes	261	75
No	8	2
Not sure	57	16
Have an idea	8	2
Exploring it	16	5
Total	350	100

Source: compute results based on primary data

Environmental cost and profitability:- 75% of the respondents expressed that there is a relationship between environmental cost disclosure and profitability, 2% of the respondents expressed 'No relationship', 16% of the respondents expressed 'Not Sure', 2% of the respondents expressed 'Have no idea' and 5% of the respondents expressed ' Exploring it'. Therefore it is concluded that majority of the respondents felt that there was a strong relationship between environmental cost and profitability.

Table 1.15 : Disclosure of Environmental costs

Public confidence	Respondents	Per cent
Yes	332	95
No	5	1
Not sure	13	4
Total	350	100

Source: compute results based on primary data

The above table:1.25 related to a question regarding public confidence if environmental costs are disclosed in the financial statements:- 95% of the respondents expressed 'Yes', 1% of the respondents expressed 'No' and 4% of the respondents expressed 'Not Sure'. Therefore it is concluded that public confidence can be developed by disclosing environmental costs in the financial statements.

Table 1.16 : Responsibility Reporting

Securing loan	Respondents	Per cent
Yes	311	89
No	39	11
Total	350	100

Source: compute results based on primary data

The above table :1.16 The Responsibility reporting is helpful for companies to secure loan or not; 89% of the respondents expressed 'Yes' and 11% of the respondents expressed 'No'. Therefore it is concluded it is helpful to secure loan by the Responsibility Reporting.

Table 1.17 : Multinational company

Global Reporting Initiative	Respondents	Per cent
Yes	303	87
No	47	13
Total	350	100

Source: compute results based on primary data

The above table: 1.17 related to a question on Indian company reporting as per Responsibility Reporting that will have an equal respect/value with a multinational company which reports as per Global Reporting Initiative:- 87% of the respondents expressed ' Yes', 13% of the respondents expressed ' No'. Therefore **it is concluded that there would be equal respect to Indian companies that report by 'Responsibility Reporting' and Multinational companies that report by 'GRI'.**

Table 1.18 : Prepares responsibility report and disclosures

Better Market Price	Respondents	Per cent
Yes	299	85
No	14	4
Not sure	37	11
Total	350	100

Source: compute results based on primary data

The above Table: 1.18 related to a question whether a company which prepares responsibility report and discloses to public will have a better market price compared to similar company not reporting environmental responsibility reporting in India:- 85% of the respondents expressed their opinion 'Yes' and 4% expressed 'No' and 11% expressed ' Not sure. Therefore it is concluded that companies reports by 'Responsibility Reporting' would have a better market price than companies who are not reporting by Responsibility Reporting.

Conclusion

A positive mind set prevailed among professionals related to environmental accounting and reporting on environment. Accounting professionals strongly believe that environmental reporting will have better market price than firm not reporting environmental issues. There would be equal respect to Indian companies that report by 'Responsibility Reporting' and Multinational companies that report by 'GRI'. . Therefore it is concluded that public confidence can be developed by disclosing environmental costs in the financial statements. Government of India can fulfil the international agreements on pollution reduction. The new trend would help the Government to implement environmental accounting and reporting.

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