

## **A STUDY ON AWARENESS OF ENVIRONMENTAL ACCOUNTING AND REPORTING WITH SPECIAL REFERENCE TO EMPLOYEES OF THRISSUR DISTRICT**

**Remya S<sup>1</sup>, Rupini T.S<sup>2</sup>**

<sup>1</sup> Assistant Professor, Department of Commerce, St Joseph's College (Autonomous), Irinjalakuda

<sup>2</sup> Assistant Professor, Department of Commerce, St Joseph's College (Autonomous), Irinjalakuda

<https://orcid.org/0000-0002-6045-5758>

### **ABSTRACT**

Green Accounting is a popular term for environmental and natural resource accounting. It is an expanding field focused on factors like resource management and environmental impact, in addition to company's revenue and expenses. An attempt has been made to analyse the importance of Environmental accounting and reporting. The awareness level of Environmental accounting and Reporting was also examined. Green accounting will help organisations to identify the resource utilization and incurred cost. Practically for developing countries like India, it is a twin problem about saving environment and economic development. This method records costs and benefits of a business concern.

**Keywords**— Environmental Accounting-Environmental Reporting-Environmental Impact

### **Introduction**

Green Accounting is the most popular term used for Environmental reporting. This was introduced in 1980 by an economist Peter Wood. This plays an important role in Corporate Social Responsibility. This incorporates environmental sources and assets to company's accounts. Social, economic and environmental impact of business is measured. It is a system emerged for sustainable development. This is a new version of accounting for environment and its Well-being. This system of reporting takes into account environmental cost for calculation of income of an enterprise. There is a need for calculating revised method of accounting which includes environmental cost. The environmental dimensions of sustainability reporting concerns an Organisation's impact on living and non-living natural systems including ecosystems, land, air and water. Environmental indicators cover performance related to inputs (eg material, energy and water) and outputs (emissions, effluents, waste etc. In addition, they cover performance related to biodiversity, environmental compliance and other relevant information such as environmental expenditure and impacts of products and services. Businesses use three generally accepted methods to implement Environment accounting namely financial accounting, managerial accounting and national income accounting. Environmental accounting and reporting is used by government agencies to calculate the nation's gross domestic product and how business decisions affect the country's economic well-being. Go Green, Green awareness etc. continue to grow in business, organisations and society. Environment accounting measures the impact of economy on environment and how it contributes to society or economy by using the accounting principles and standards of national accounts. Green accounting, green procurement activities and research and development played a vital role for future corporate sustainability. Environmental accounting is a part of social reporting, Corporate Social Responsibility and sustainable reporting.

### **Significance of the Study**

In today's world ,environmental accounting and reporting is an expanding field focused on factors like Resource Management and Environmental impact in addition to company's revenue and expenses. Companies are incorporating the environmental element in their business operation. This help the organisation to identify the resource utilization and incurred cost. Environmental accounting and reporting are important for company's growth and development. It provides detailed information

to shareholders and also increases GDP and NNP. CSR activities are mandatory for all organisations, this activity is not engaged in normal course of business so, it's important to find out CSR expenditure.

### **Scope of the Study**

The present study is made to find out the awareness level of Environmental accounting and reporting among employees of various private automobile manufacturing units in Thrissur district. It also aims at analyzing the importance of Environmental disclosure for business. Independent variables of the study are –Age, Marital status, Income level, Years of experience etc. and Dependent Variable of the study is Environmental Accounting and Reporting.

### **Statement of the Problem**

Accounting word comes from business or commercial activity ie trading, buying or selling. Environment refers to all surroundings of a living organism, non-living organism and natural forces which provide the conditions for development and growth as well as of danger and damage. Environment of business affects the internal or external factors which influence the business. But due to business activities, the environment of earth is degrading and as a result the new green accounting practices has been emerged. Companies are now being pressurized to disclose their environmental performance in their annual or sustainability reporting. Practically for developing countries like India, it is a twin problem about saving environment and economic development. Environment accounting and reporting is in developing stage in India both at corporate and national level. Thus, Environment accounting and Reporting become more important because competition has increased among business and a few studies has been conducted on analysing the Awareness towards Green Accounting and Reporting. So, the present study entitled “A study on awareness of environmental accounting and reporting with special reference to employees of Thrissur district” has been undertaken.

### **Objectives of the Study**

- 1 To analyse the awareness level of employees towards Environmental Accounting
- 2 To analyse the awareness level of employees towards Environmental Reporting
- 3 To analyse the importance of Environmental accounting and reporting in business

### **Research Methodology**

#### **1. Type of research**

Descriptive research is used for the study.

#### **2. Types of data**

The data for the study has been obtained as a blend of primary and secondary sources.

Primary data was collected directly from the respondents through questionnaires and surveys and Secondary data was collected from journals, magazines and websites.

#### **3. Universe/population**

The population of the study is employees of Automobile Manufacturing Company in Thrissur district

#### **4. Sample frame**

Selected categories of employees in the Company

#### **5. Sample Unit**

Each employee in the sample frame

#### **6. Sample size**

The size of the sample is 50

#### **7. Sampling technique**

Purposive or Judgemental sampling technique is used for the study

#### **8. Tools for data analysis-**

The collected data is analyzed through Percentage method, Ranking method and Likert Scale

9. **Tools for data presentation-**

The analyzed data is presented with the help of tables, charts and diagrams

**Limitations of the Study**

- ❖ The study was restricted to employees in Automobile manufacturing company only only
- ❖ The results and findings are based on the opinion of the respondents and it cannot be generalized.

**Literature Review**

1. **Gupta (2019)** studied a top 50 company’s annual report to analyse their environmental disclosure practices. In this study an index of environmental disclosure listing 23 item of information has been used to find out actual disclosure practices in these companies. He found that companies are aware about the fact of environmental issues which effect the business and industries in the future. Despite this awareness, the companies do not have a proper environmental accounting system to determine the environment related cost, benefits, assets and liabilities. In India companies fail to provide adequate disclosure of environment. He concludes that there is a low level of environmental accounting and reporting activity in India

2. **Anita Jose and Shang-Mei Lee ( 2020)** investigate the environmental management practices of the 200 largest corporation in the world.They found out some interesting facts regarding the disclosure practices of Environmental reporting.They said 60 percent of the worlds largest companies have environmental policies and 41 percent of company disclosure need Environmental management system.In this study they found US 63.22 percent,UK 83.33 percent,Japan 75 percent and Germany 73.68 percent are disclosed.

**Table 1 Age of Respondents**

Particulars	Frequency	Percentage
Less than 20	10	20
20-40	38	76
40-60	2	4
Above 60	0	0
<b>Total</b>	<b>50</b>	<b>100</b>

(Source : Primary Data)

**Table 2 Gender of Respondents**

Particulars	Frequency	Percentage
Female	34	67
Male	16	33
<b>Total</b>	<b>50</b>	<b>100</b>

(Source : Primary Data)

**Table3 Annual Income**

Particulars(INR)	Frequency	Percentage
Less than 1 lakh	32	64
1 lakh - 3 lakh	13	26
3lakh - 5lakh	5	10
Above 5 lakh	0	0
<b>Total</b>	<b>50</b>	<b>100</b>

(Source : Primary Data)

**Table4 Awareness about Environmental accounting & Reporting**

Particulars	Frequency	Percentage
Aware	50	83
Not aware	10	17
<b>Total</b>	<b>60</b>	<b>100</b>

(Source :Primary Data)

**Table5 Years of Experience**

Particulars	Frequency	Percentage
Less than 1 year	15	30
1 - 3 years	26	52
3- 6 years	7	14
6 years above	2	4
<b>Total</b>	<b>50</b>	<b>100</b>

(Source : Primary Data)

**Table 6 Response Towards existing system of accounting and reporting**

Particulars	Frequency	Percentage
Highly satisfied	3	6
Satisfied	32	64
Neutral	12	24
Dissatisfied	3	6
Highly dissatisfied	0	0
<b>Total</b>	<b>50</b>	<b>100</b>

(Source : Primary Data)

**Table7 Influence of Stakeholders pressure on reporting norms**

Particulars	Frequency	Percentage
Influenced	47	94
Not influenced	3	6
<b>Total</b>	<b>50</b>	<b>100</b>

(Source : Primary Data)

**Table 8 Technical Support From Management**

Particulars	Frequency	Percentage
Received	40	80
Not received	10	20
<b>Total</b>	<b>50</b>	<b>100</b>

(Source : Primary Data)

**Table 9 Influence of media on Environmental Disclosure**

Particulars	Frequency	Percentage
Highly influenced	13	26
Not highly influenced	10	20
Neutral	27	54
<b>Total</b>	<b>50</b>	<b>100</b>

(Source : Primary Data)

**Table 10 Level of awareness of Environmental Accounting**

Statement s		Extremely aware	Moderately aware	Slightly aware	neutral	Slightly unaware	Moderately unaware	Extremely unaware	Total	Mean
	Weight	7	6	5	4	3	2	1		
I am aware of the fact that environmental accounting helps to discharge social responsibility more efficiently	F	23	16	8	3	0	0	0	50	6.18
	Fx	161	96	40	12	0	0	0	309	
I am aware that it helps to reduce pollution cost	F	31	15	3	0	1	0	0	50	6.5
	fx	217	90	15	0	3	0	0	325	
I am aware that it provides industrial environmental performance information	F	20	18	10	1	1	0	0	50	6.1
	fx	140	108	50	4	3	0	0	305	
I am aware of the fact that it improves public policy	F	10	20	13	4	3	0	0	50	5.6
		70	120	65	16	9	0	0	280	

<b>decision making</b>	fx									
------------------------	----	--	--	--	--	--	--	--	--	--

**Table 11 Mean and standard deviation regarding the level of awareness of Environment Reporting**

Statement	Mean	Std Deviation	Level
The company has a specialized team of technicians to study public policies in the field of environment	4.441	0.56576	5
The companys management examines the environmental status	3.927	1.09057	15
The companys management examines operational practices and monitors emission	4.198	0.72224	11
The management examines the disposal of hazardous waste	4.585	0.59361	1
The concept of Environmental disclosure is unclear to the employees	4.387	0.70127	8
There is a need to apply environmental reporting in the industrial company	4.391	0.58991	7
The application of environmental reporting brings environmental revenue	4.531	0.56792	3
The adoption of environmental reporting helps to make rational decisions in production	4.567	0.56475	2
The adoption of Environmental reporting is detrimental to company’s reputation	4.351	0.66793	9
Accountant should prepare Environmental financial statements also	2.864	1.18426	17
Application of Environmental disclosure leads to unnecessary spending	4.013	1.01339	13
I support the environmental reporting practices of the company	3.522	0.99634	16
The adoption of environmental disclosure improves the quality of financial statements	3.95	0.83600	14
Environmental accounting information contributes to investment decision making	4.265	0.74700	10

**Table 12 Importance of Environmental Reporting**

Importance	Rank	1	2	3	4	5	Total	Mean	Rank
	Weight	5	4	3	2	1			
Measurement of Environmental resources	F	11	12	9	13	5	50	3.22	2 <sup>nd</sup>
	Fx	55	48	27	26	5	161		
Social Contribution by corporates	F	22	14	5	8	1	50	3.96	1 <sup>st</sup>
	fx	110	56	15	16	1	198		
Proper disposal of hazardous waste	F	4	10	19	10	7	50	2.88	4 <sup>th</sup>
	fx	20	40	57	20	7	144		
Cleaning up pollution	F	10	8	14	10	8	50	3.04	3 <sup>rd</sup>
	fx	50	32	42	20	8	152		
Regulatory requirements	F	3	6	3	9	29	50	1.9	5 <sup>th</sup>
	fx	15	24	9	18	29	95		

  

Importance	Rank	1	2	3	4	5	Total	Mean	Rank
	Weight	5	4	3	2	1			
Demonstrate green credentials	F	23	10	8	7	2	50	3.9	1 <sup>st</sup>
	fx	115	40	24	14	2	195		
Awareness of energy and raw material cost	F	5	15	12	11	7	50	3	3 <sup>rd</sup>
	fx	25	60	36	22	7	150		
Review Environmental performance	F	18	14	10	5	3	50	3.78	2 <sup>nd</sup>
	fx	90	56	30	10	3	189		
Provide the base for decision making	F	3	9	10	12	16	50	2.42	4 <sup>th</sup>
	fx	15	36	30	24	16	121		
Improved reputation	F	1	2	10	15	22	50	1.9	5 <sup>th</sup>
	fx	5	8	30	30	22	95		

**Findings**

On the analysis and evaluation of the data collected from the respondents, the following important findings were recorded:

- It can be seen that around 76 percent of respondents belong to the age group of 20-40, 20 percent of the respondents belong to less than 20 years of age and only 4 percent of respondents belong to the age group of 40-60.
- It can be seen that 67 percent of respondents are female and 33 percent of respondents are male.

- It can be seen that 64 percent of respondents have annual income less than 1 lakh 26 percent of respondents have annual income between 1 lakh to 3 lakh and 10 percent of respondents have income between 3 lakh to 5 lakh
- It can be seen that 83 percent of respondents are aware about Environmental accounting and Reporting and 17 percent of respondents are not aware about them.
- It can be seen that ,52 percent of respondents have work experience for 1- 3 years 30 percent of respondents have experience for less than one year.14 percent of respondents have been working for 3 to 6 years and 4 percent of respondents have work experience of 6 years and more
- It can be seen that , 64 percent of respondents are satisfied with the existing accounting and reporting system in the company ,24 percent of respondents have neutral opinion about accounting and reporting system and 6 percent of respondents are highly satisfied and dissatisfied respectively with the existing accounting and reporting system
- It can be seen that , 94 percent of respondents opined that stake holders pressure influenced on reporting norms and 6 percent of respondents opine that stake holders pressure are not influenced on reporting norms.
- It can be seen that, 80 percent of respondents receive technical support from management for adoption of Environmental accounting and 20 percent of respondents does not received technical support.
- It can be seen that 54 percent of the respondents have neutral opinion about the influence of media on Environmental disclosure 26 percent of respondents opined that media have high influence on Environmental disclosure and 20 percent of the respondents are of the opinion that media have not highly influenced on Environmental disclosure.
- It can be seen that , employees are extremely aware of the fact that environmental accounting helps to discharge social responsibility more efficiently which has mean value 6.18. helps to reduce pollution cost (6.5) , Provides industrial performance information (6.1) They are least aware of the fact that environmental accounting improves public policy decision making(5.6)
- It can be seen that Employees are aware of the fact that adoption of Environmental reporting increases the revenue of the concern and helps to make rational decision in production. There is a need for environmental disclosure in industrial company
- It can be seen that, the Environmental accounting is needed to understand the social contribution made by corporates, then it is needed to measure the Environmental resources of the company, thirdly it is essential for cleaning up pollution and proper disposal of hazardous waste. The least importance of Environmental accounting according to employee's opinion was to meet regulatory requirements.
- It can be seen that, the majority of people giving their first preference to demonstrating green credentials as the main importance of Environmental reporting and second preference given to Reviewing Environmental performance, Awareness of energy and raw material cost, base for decision making and least preference was given to the fact that environmental reporting helps to improve the reputation of the company.

### **Conclusion**

The major purpose of Green Accounting is to help business understand and manage the potential quid pro quo between traditional economic goals and environmental goals. The countries which are adopting green accounting are Norway, Philippness, Namibia, Chile, USA, Japan etc. Green Accounting in India is in developing stage. It is one of the best methods to be followed for sustainable development.

### **References**

1. Freedman M, and Jaggi M (1998) An analysis of the association between pollution disclosure and economic performance Accounting, Auditing and Accountability Journal pp 43-58



2. Sharma S (2000) Managerial interpretations and Organisational context as predictors of corporate choice of environmental strategy, *Academy of management Journal* pp681-697
3. Cowen, S. S., Ferreri, L. B., & Parker, L. D. (1987). The impact of corporate characteristics on social responsibility disclosure: A typology and frequency-based analysis. *Accounting, Organisations and Society*, 12(2), 111–122.
4. Gray, R., Javad, M., Power, D. M., & Sinclair, C. D. (2001). Social and environmental disclosure and corporate characteristics: A research note and extension. *Journal of Business Finance and Accounting*, 28(3–4), 327–356.
5. Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing and Accountability Journal*, 9(1), 77–108.
6. Milne, M. J., & Adler, R. W. (1999). Exploring the reliability of social and environmental disclosures content analysis. *Accounting, Auditing and Accountability Journal*, 12(2), 237–256.
7. Vo Ngoc Mai Anh; Hoang Kim Ngoc Anh; Vo Nhat Huy; Huynh Gia Huy; Minh Ly. "Improve Productivity and Quality Using Lean Six Sigma: A Case Study". *International Research Journal on Advanced Science Hub*, 5, 03, 2023, 71-83. doi: 10.47392/irjash.2023.016
8. Swathi Buragadda; Siva Kalyani Pendum V P; Dulla Krishna Kavya; Shaik Shaheda Khanam. "Multi Disease Classification System Based on Symptoms using The Blended Approach". *International Research Journal on Advanced Science Hub*, 5, 03, 2023, 84-90. doi: 10.47392/irjash.2023.017
9. Susanta Saha; Sohini Mondal. "An in-depth analysis of the Entertainment Preferences before and after Covid-19 among Engineering Students of West Bengal". *International Research Journal on Advanced Science Hub*, 5, 03, 2023, 91-102. doi: 10.47392/irjash.2023.018
10. Ayush Kumar Bar; Avijit Kumar Chaudhuri. "Emotica.AI - A Customer feedback system using AI". *International Research Journal on Advanced Science Hub*, 5, 03, 2023, 103-110. doi: 10.47392/irjash.2023.019
11. Rajarshi Samaddar; Aikyam Ghosh; Sounak Dey Sarkar; Mainak Das; Avijit Chakrabarty. "IoT & Cloud-based Smart Attendance Management System using RFID". *International Research Journal on Advanced Science Hub*, 5, 03, 2023, 111-118. doi: 10.47392/irjash.2023.020
12. Minh Duc Ly; Que Nguyen Kieu Viet. "Improvement Productivity and Quality by Using Lean Six Sigma: A Case Study in Mechanical Manufacturing". *International Research Journal on Advanced Science Hub*, 4, 11, 2022, 251-266. doi: 10.47392/irjash.2022.066 Minh Ly Duc; Que Nguyen Kieu Viet. "Analysis Affect Factors of Smart Meter A PLS-SEM Neural Network". *International Research Journal on Advanced Science Hub*, 4, 12, 2022, 288-301. doi: 10.47392/irjash.2022.071
13. Lely Novia; Muhammad Basri Wello. "Analysis of Interpersonal Skill Learning Outcomes in Business English Students Class". *International Research Journal on Advanced Science Hub*, 4, 12, 2022, 302-305. doi: 10.47392/irjash.2022.072
14. Ms. Nikita; Sandeep Kumar; Prabhakar Agarwal; Manisha Bharti. "Comparison of multi-class motor imagery classification methods for EEG signals". *International Research Journal on Advanced Science Hub*, 4, 12, 2022, 306-311. doi: 10.47392/irjash.2022.073
15. Aniket Manash; Ratan Kumar; Rakesh Kumar; Pandey S C; Saurabh Kumar. "Elastic properties of ferrite nanomaterials: A compilation and a review". *International Research Journal on Advanced Science Hub*, 4, 12, 2022, 312-317. doi: 10.47392/irjash.2022.074
16. Prabin Kumar; Rahul Kumar; Ragul Kumar; Vivek Rai; Aniket Manash. "A Review on coating of steel with nanocomposite for industrial applications". *International Research Journal on Advanced Science Hub*, 4, 12, 2022, 318-323. doi: 10.47392/irjash.2022.075
17. Twinkle Beniwal; Vidhu K. Mathur. "Cloud Kitchens and its impact on the restaurant industry". *International Research Journal on Advanced Science Hub*, 4, 12, 2022, 324-335. doi: 10.47392/irjash.2022.076
18. R. Devi Priya, R. Sivaraj, Ajith Abraham, T. Pravin, P. Sivasankar and N. Anitha. "MultiObjective Particle Swarm Optimization Based Preprocessing of Multi-Class Extremely

- Imbalanced Datasets". International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems Vol. 30, No. 05, pp. 735-755 (2022). Doi: 10.1142/S0218488522500209
19. V.S. Rajashekhar; T. Pravin; K. Thiruppathi , "Control of a snake robot with 3R joint mechanism", International Journal of Mechanisms and Robotic Systems (IJMRS), Vol. 4, No. 3, 2018. Doi: 10.1504/IJMRS.2018.10017186
  20. T. Pravin, C. Somu, R. Rajavel, M. Subramanian, P. Prince Reynold, Integrated Taguchi cum grey relational experimental analysis technique (GREAT) for optimization and material characterization of FSP surface composites on AA6061 aluminium alloys, Materials Today: Proceedings, Volume 33, Part 8, 2020, Pages 5156-5161, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.02.863>.
  21. Pravin T, M. Subramanian, R. Ranjith, Clarifying the phenomenon of Ultrasonic Assisted Electric discharge machining, "Journal of the Indian Chemical Society", Volume 99, Issue 10, 2022, 100705, ISSN 0019-4522, Doi: 10.1016/j.jics.2022.100705
  22. M. S. N. K. Nijamudeen, G. Muthuarasu, G. Gokulkumar, A. Nagarjunan, and T. Pravin, "Investigation on mechanical properties of aluminium with copper and silicon carbide using powder metallurgy technique," Advances in Natural and Applied Sciences, vol. 11, no. 4, pp. 277–280, 2017.
  23. T. Pravin, M. Sadhasivam, and S. Raghuraman, "Optimization of process parameters of Al10% Cu compacts through powder metallurgy," Applied Mechanics and Materials, vol. 813-814, pp. 603–607, 2010.
  24. Rajashekhar, V., Pravin, T., Thiruppathi, K.: A review on droplet deposition manufacturing a rapid prototyping technique. Int. J. Manuf. Technol. Manage. 33(5), 362–383 (2019) <https://doi.org/10.1504/IJMTM.2019.103277>
  25. Rajashekhar V S, Pravin T, Thirupathi K, Raghuraman S. Modeling and Simulation of Gravity based Zig-zag Material Handling System for Transferring Materials in Multi Floor Industries. Indian Journal of Science and Technology. 2015 Sep, 8(22), pp.1-6.
  26. Ragunath A; Poonam Syal. "Net Zero Energy Buildings Initiatives - A Review". International Research Journal on Advanced Science Hub, 4, 11, 2022, 267-271. doi: 10.47392/irjash.2022.067
  27. Suresh P; Justin Jayaraj K; Aravintha Prasad VC; Abishek Velavan; Mr Gokulnath. "Deep Learning for Covid-19 Identification: A Comparative Analysis". International Research Journal on Advanced Science Hub, 4, 11, 2022, 272-280. doi: 10.47392/irjash.2022.068
  28. Chirag H B; Darshan M; Rakesh M D; Priyanka D S; Manjunath Aradya. "Prediction of Concrete Compressive Strength Using Artificial Neural Network". International Research Journal on Advanced Science Hub, 4, 11, 2022, 281-287. doi: 10.47392/irjash.2022.069
  29. Shoeb Ahmed Syed; Steve Ales; Rajesh Kumar Behera; Kamalakanta Muduli. "Challenges, Opportunities and Analysis of the Machining Characteristics in hybrid Aluminium Composites (Al6061-SiC-Al<sub>2</sub>O<sub>3</sub>) Produced by Stir Casting Method". International Research Journal on Advanced Science Hub, 4, 08, 2022, 205-216. doi: 10.47392/irjash.2022.051
  30. Ashima Saxena; Preeti Chawla. "A Study on the Role of Demographic Variables on Online Payment in Delhi NCR". International Research Journal on Advanced Science Hub, 4, 08, 2022, 217-221. doi: 10.47392/irjash.2022.052