

## THE IMPACT OF ENVIRONMENTAL ACCOUNTING ON FINANCIAL REPORTING

### Article Particulars

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### Abstract

*Environmental accounting is a tool for achieving sustainable development, maintaining good relationships with the community, and applying effective environmental measures to protect the environment. The purpose of the research is to survey the necessity of introducing and using environmental accounting information in automotive financial reporting and the usefulness of this information for different groups of users of financial information. The research method in this research is a library-deductive-inductive research method. The statistical population of this research includes 104 senior executives-financial experts-accounting manager-industrial enterprises, 88% male and 22% female. To determine the sample size, the Cochran formula was used. According to the number of statistical population, 82 individuals were considered as the sample. The data collection tool in this research is a passphrase designed according to the literature of the research to analyze and the questionnaire was analyzed using a five-point measurement scale (Likert scale). The research was analyzed using a T-test and descriptive statistics. The statistical software used in this research is SPSS. During the testing of the hypothesis, it has been proved that from the theoretical point of view, environmental accounting information has qualitative features of financial information and also provides useful information to users of financial reports. Environmental accounting provides information that includes evaluation, performance, and control, decision-making and reporting. Leading the way for companies to focus on environmental accounting, companies have not been able to disclose environmental damage in their financial affairs. As a result of browsing time and increasing damages, companies have been forced to comply with these issues.*

**Keyword:** Environmental Accounting, Accounting Information, Financial Reporting

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### Introduction

The relationship between humans and the environment has always been complicated; humans are both part of nature and independent; the general view of science is that humans evolved through natural selection, but from the point of view of technology, humans formed the environment at the same time, they can view and

record it. This observation and registration includes the environment and human effects on the environment. There is a lot of interest in environmental protection at all levels, as evidenced by the issuance of environmental regulations in many countries. Governments are seeking new solutions to prevent environmental degradation. Clearly, environmental protection requires an independent management system. Accounting information system as an important part of the information management system can play a significant role in providing environmental information. The accounting profession can provide appropriate information to the management by appropriately disclosing how the assets and liabilities are presented and how they reflect the expenditures they spend on the environment. The focus of accounting is the economic aspect of the environment. The entry of the environment into the accounting system leads to the improvement of economic indicators and enables different users to make decisions that support sustainable development. Also, environmental accounting has many different uses and uses. Environmental accounting can be based on extensive environmental accounting, ecological accounting at the local level, and financial accounting, industrial accounting, or management accountability at the small level (SeyyedFahimnejad, 2004).

### **Environmental Accounting Definition**

Environmental accounting is a branch of accounting that collects information about environmental costs and utilizes this information in the calculation of the cost of goods and services. It is a collection of activities that increase the power of accounting systems in identifying and reporting on the effects of degradation. Environmental vaporization.

### **History of Environmental Accounting**

It is possible to describe the evolution and evolution of the environmental accounting course in four periods as follows:

**Period 1970:** During this period, theoretical and exploratory discussions on environmental accounting were presented.

**1990-1990 Period:** In the course of the discussion, the role of environmental accounting was discussed in describing the information for environmental activities.

**Period 1991-1995:** To some extent, the development and development of environmental accounting and environmental reports, as well as the possibility of auditing these types of reports.

**Present Role:** The role of environmental accounting as an assessment of the environmental performance of companies in relation to the standards approved by the official accounting authorities This role was taken into consideration since the beginning of 1996.

## Necessity of Research

The purpose of environmental accounting is to provide information to assist managers in evaluating performance, control, decision making and reporting for an organization or region. Environmental accounting is based on the concepts, criteria and environmental and economic values. To achieve this, a change in culture is felt, part of which will be achieved through environmental accounting and reporting. Biosafety The environment provides information that helps managers in evaluating, operating, controlling, decision-making and reporting. Environmental accounting is based on economic and environmental concepts and, since it uses values that do not come from the market, its use requires a change in culture. Environmental accounting provides some of these changes in the organization and, more broadly, in a comprehensive manner. By providing more fundamental recognition and engaging in day-to-day activities, it helps to determine the goal of continuous development as a specific approach. Two categories of sustainable development and conservation and improvement in the environment are the main issues that all over the world focus on how economic growth and social In order to protect the poor, it will intensify with the economic growth of pressure on natural systems and resources of the planet.

Accounting nowadays has begun to implicitly address environmental processes, and this issue will probably further expand (Hawang, 2012). With increasing global worries, for some of the negative aspects brought to the environment through human activities in recent years, some industries are moving towards sustainable development and measuring brilliance (Jannani and Heidari, 2011).

Environmental accounting is an important tool for understanding the role played by natural environments in regional, regional and national economies (Jankovis, 2011). One of the most important environmental problems is the lack of environmental considerations in decision making. Nowadays, decision makers inevitably need useful information, and if information systems fail to provide the necessary information to users, then the decisions made Not only will it not overcome problems, which will add to the economic complexities (SeyedNezhad, 2004). Among these, the environmental accounting system as an important component of the information management system can play a significant role in encouraging users to protect the environment and provide useful information. For users With transparent and comparable information in their planning. In other words, environmental accounting plays an important role in the environmental management system by classifying the right costs and benefits of the environment from the user's point of view. Although some of the benefits derive from the sustainability of costly environmental costs, but with appropriate disclosure in financial reporting possessing a positive view among shareholders and the capital market, it increased the shareholder's wealth (Kazemzadeh, 2004). There is a lot of interest in environmental protection at all levels, as evidenced by the issuance of environmental regulations in many countries. The government is seeking new solutions

to prevent environmental degradation. It is clear that environmental protection is an independent management system needs. The accounting information system as an important part of the information management system can play a significant role in providing environmental information. The accounting system can provide appropriate information by appropriate disclosure of how the assets and environment are presented, and how to reflect the expenditures spent on the environment. Management provide. The focus of accounting is on the economic aspects of the environment. The environmental climate in the accounting system improves the economic indicators, allowing different users to make decisions that support sustainable development (SeyedNezhad, 2004). Also, environmental management accounting is considered part of environmental accounting as a useful tool to overcome the limitations of traditional management accounting, which leads to a better understanding of environmental issues for the decision making process.( Dina, 2009).

### **The Necessity of Environmental Accounting**

Environmental accounting plays an important role in proving logical decisions, in addition, companies need to be accountable to their shareholders.

When environmental resources and public goods are used for business activities, disclosure of accounting information is a key process of accountability, as a result of which environmental accounting helps companies to increase the level of public confidence and public acceptance makes.

### **Reasons for the Benefits of Environmental Accounting**

Manufacturing and service companies face a variety of costs, such as environmental costs. Environmental performance is one of the most important factors in assessing the company's success. The costs and environmental performance of the company are important for the following reasons:

1. Many environmental costs can be significantly reduced or eliminated by making better investments in more adaptable technology than the more consistent equipment.
2. Better management of environmental costs can also improve the company's environmental performance and bring significant benefits to the community.
3. Understanding environmental costs can improve environmental performance, improve product prices, and encourage organizations to reduce environmental costs.
4. Creates competitive advantages for the company's products among customers.

## Background Research

### Foreign Research

The measurement of the performance and environmental performance of the company and its application for analyzing the efficiency of the oil industry is an issue that has been explored by Chang et al. (1989). The study reveals that different disclosures among companies that have environmental performance at different levels (Good, Bad, Medium) can be used to evaluate the various levels of real-life environmental performance of those companies.

In the case of tools, the incentive environment for environmental accounting is investigated by Lin Lee, who concludes that for government tools, three examples, including the basis of information, are the optional tools for shared tools, of the most effective factors in the development of environmental accounting procedures, and the common The three mechanisms are the same as the critical flow of information.

- On the Skills and Knowledge of Project Management for Environmental Research, conducted by Huang and colleagues (2012), this study sought the following objectives:

1. Identify the necessary knowledge and skills required for the project manager from environmental design.
2. Identify the barriers faced by project managers in establishing environmental projects and identify the areas of knowledge and skills that can respond to barriers.
3. Provide a comparative analysis of the areas of knowledge and skills required between traditional schemes and the creation of the environment.

### Indian Research

A research on environmental management accounting has been done by Simon, who has been trying to illustrate the evolutionary nature of the conceptual framework, and a clear explanation has been made on the physical and environmental aspects of accounting.

In a study by Raj, entitled Environmental Cost Examination for Companies with ISO 14000 Certificates, the purpose of the study is to examine the status of environmental accounting in sample manufacturing companies that received an ISO 14000 certificate, and By reviewing the financial statements of these companies, they will examine the reflection of environmental costs and environmental benefits before obtaining and receiving the ISO 14000 certificate. The research findings are as follows:

1. There is a significant relationship between the receipt of ISO 14000 certificates and the assessment of environmental costs in financial reports.
2. There is a significant relationship between obtaining the ISO 14000 certificate and increasing long-term assets.
3. There is a meaningful relationship between the receipt of the ISO 14000 certificate and the reduction in the cost of the finished goods.

Based on the results of the tests, the above hypotheses have not been approved. The feasibility of environmental reporting in India is an issue that has been explored by Sahar and colleagues. The researcher first examined the theoretical basis of accounting and environmental performance reporting based on the concepts of environmental accounting, guidelines for sustainability reporting, and then the feasibility of the implementation of these reports in Iran has been reviewed and the results indicate that among the a) laws and regulations Environmental requirements in preparing environmental reports; b) knowledge of financial managers on the concepts of environmental reporting; and the beliefs of financial managers about the benefits of environmental reporting and the preparation of environmental reports.

## **Research Purposes**

### **Main Objectives**

The theoretical review of the need for the introduction and use of environmental accounting information in financial reporting and the usefulness of this information for different groups of users of information.

### **Sub-Goals**

Examining the impact of environmental accounting information on the qualitative characteristics of financial information such as (comprehensibility, relevance, reliability, comparability)

Examining the impact of environmental accounting data with decisions (managers, employees, community, investors, creditors and customers).

### **Hypotheses**

1. Environmental accounting information has a meaningful relationship with the qualitative characteristics of financial information such as (comprehensibility, relevance, reliability, comparability).
2. In automobile industry, environmental accounting information has a meaningful relationship with decisions (managers, employees, community, investors, creditors and customers).

### **Research Methodology**

The present research has been designed to analyze the impact of environmental impact on financial reporting. The method of selecting the subject in this research was based on obtaining and reviewing the research papers of foreign researchers. To collect data, the field method was used and a questionnaire was used for this purpose. To analyze the questionnaire, a five-point measure (Likert scale) has been used, and the option is very low to very high (very weak to very strong). Regarding the validity of the questionnaire of this research, it should be said that the questions are standard, therefore, their validity is not necessary. To determine the reliability of the questionnaire,

Cronbach's alpha coefficient was used as the following and the researcher used SPSS software to measure the reliability of the research questionnaires.

$$\alpha = \frac{k}{k-1} \left( 1 - \frac{\sum_{i=1}^k S_i^2}{\sigma^2} \right)$$

The calculated alpha value for the current questionnaire is 94% and reliability is confirmed. The statistical society of this research includes 104 senior executives-financial experts-accounting officer-industrial enterprises, 88% male and 22% female.

This study was calculated using the Cochran formula below the sample size:

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N} \left( \frac{z^2 pq}{d^2} - 1 \right)}$$

**The Variables of this Formula are defined as**

- Size of statistical population: N
- Sample size sample: n
- Success rate: P
- Failure ratio: q
- Distribution standard: Z
- Estimated error: ε

Therefore, according to the calculations, 82 samples form the sample size.

**Data Analysis**

Descriptive Statistics

**Table 1 Distribution of Respondents' Gender**

Sex	Abundance	Frequency
Man	72	88
Woman	10	12
<b>Total</b>	<b>82</b>	<b>100</b>

According to the above table, it can be seen that 82% of the sample are 88% male and 12% female.

**Table 2 Distribution of Respondents' Age**

Age	Abundance	Frequency
Under 25 years old	2	2/5
25 to 35 years old	17	21
35 to 45 years old	23	28.5
45 to 55 years old	25	30
More than 55 years old	15	18
<b>Total</b>	<b>82</b>	<b>100</b>

According to the above table, it is found that out of 82 cases, the statistical sample is 2.5 percent less than 25 years old, 21 percent 25 to 35 years old, 28.5 percent 35 to 45, 30 percent 45 to 55, and 18 percent more than 55.

**Table 3 Frequency Distribution of Respondents' Education**

Level of Education	Abundance	Frequency
Diploma	4	4.8
Bachelor	21	25.6
Masters	35	42.7
Doctoral	22	26.9
<b>Total</b>	<b>82</b>	<b>100</b>

According to the above table, of the 82 students, the sample has 4.8% diploma, 25.6% aptitude, 42.7% undergraduate, 26.9% masters.

**Table 4 Frequency Distribution of Respondents' Study Fields**

Frequency	Abundance	Field of Study
Accounting	28	34.1
Management	30	36.6
Economy	14	17.1
other fields	10	12.2
<b>Total</b>	<b>82</b>	<b>100</b>

According to the above table, it can be seen that out of 82 individuals in the sample, 34.1% had an accounting degree, 36.6% had a management degree, 17.1% had an economics degree, 12.2% had completed secondary courses.

### Inferential statistics

Hypothesis 1: Environmental accounting data has a meaningful relationship with qualitative features of financial information such as (comprehensibility, relevance, reliability, comparability).

$$H_0: \mu \leq 3$$

$$H_1: \mu > 3$$

**Table 5 Describing the Data in the T-Student Test for the First Hypothesis**

Standard deviation error	Standard deviation	Average	Number
3/2415	0/65324	3/2415	82

**Table 6 Student T Test for the First Hypothesis**

Average Society = 3					
T	free	Significance L	Difference In Averages	95% Confidence Interval of the Difference	
				Lower	Upper
<b>4/668</b>	<b>81</b>	<b>0/000</b>	<b>0/2415</b>	<b>0/1497</b>	<b>/3440</b>

The results from the above tables show that the average of the responses given to this hypothesis was 3,143, while the mean of the baseline (since the Likert scale was used to measure the questionnaire, which is graded from 1 to 5, the average of this spectrum 3 which is considered the average of the base) is 3. So, we see that the mean of responses is 24% higher than the average.



This mean difference in the t test is significant at the level of 1%. As a result, the responses given to these variables are high and very large, therefore the assumption H0 is rejected and the H1 assumption is accepted, so we can say from the environmental accounting information there is a meaningful relationship with the qualitative features of financial information such as (comprehensibility-relevancy-reliability-capability-comparisons).

Second hypothesis: In automobile industry, environmental accounting information has a significant relationship with decisions (managers, employees, community, investors, creditors and customers).

$H_0: \mu \leq 3$

$H_1: \mu > 3$

**Table 7 Describing the Data in Student's T Test for the Second Hypothesis**

Standard deviation error	Standard deviation	Average	Number
0/05467	0/73139	3/7430	82

**Table 8 Student t Test for the Second Hypothesis**

Average Society = 3					
T	free	significance I	Difference in Averages	95% Confidence Interval of the Difference	
				Lower	Upper
13/592	81	0/000	0/74302	0/6351	0/8509

The results of the above tables show that the average of the responses given to this hypothesis was 3.74, while the mean of the baseline (since the Likert scale was used to measure the questionnaire, which is graded from 1 to 5, the mean of this spectrum is 3 Which is considered as the average basis) is 3. Therefore, we see that the mean of responses is 0.44 higher than the mean average. This mean difference in the t test is significant at 1% level. As a result, the responses given to these variables are high and very high, thus assuming H0 is rejected and the H1 assumption is accepted. Therefore, it can be said that in automobile industry, environmental accounting information has a significant relationship with decisions (managers, employees, community, investors, creditors and customers).

**Environmental Reporting**

Since environmental accounting also includes environmental reporting and environmental performance is important from the point of view of users of financial reports, disclosure of environmental costs in order to maintain the wealth of shareholders increases the value of the firm's profit. And although the benefits of such costs are not measurable to Rupee, it also creates a distinction in the profit-making enterprise as a green industry, and despite the advantages of maintaining a

competitive market among non-marketable industries, through the creation of social popularity, Effective and effective effects on the stock prices of such firms in the stock market, therefore, environmental reporting should be considered more closely by the managers of the economic units, especially those who incur high costs in the environmental field.

### **Conclusion**

In this research, three hypotheses were analyzed and it was determined that:

1. Environmental accounting information has a significant relationship with the qualitative characteristics of financial information such as (comprehensibility-relevance-reliability-capability-comparison), so the first hypothesis is confirmed
2. In the automotive industry, environmental accounting information has a significant relationship with decisions (managers, employees, community, investors, creditors and customers), so the second hypothesis is confirmed.

During the testing of hypotheses, it has been proved that from the theoretical point of view, environmental accounting information has qualitative features of financial information and also provides useful information to users of financial reports. In accounting education, while teaching accounting advances, it should consider the needs of the community. One of the requirements is the existence of a healthy and healthy environment for living. Therefore, it is necessary to pay attention to the environment, in spite of the small amount of accounting, and the reflection of its costs. Since the application of environmental accounting is one of the important factors for entering the global trade markets, it also increases the share of participation in global competition markets. Therefore, it is suggested that different companies and industries for the provision and provision of environmental information and training of managers and experts Efforts will be made more serious in the environment. - Applied to research how the impact of environmental impact on financial reporting can affect the company's true value? Applied to investigate whether the market can identify the impact of environmental impact on financial reporting and, in that regard, assess the company's shares?

### **Suggestions**

1. Environmental accounting should be responsible for measuring environmental performance, and in particular its reports should be published in financial journals.
2. Environmental scientists need to set standards for environmental accounting procedures. Research and environmental accounting studies should be encouraged and developed at all levels.
3. The introduction of environmental accounting should be done by management and administrative authorities at all levels.
4. Environmental accounting and statistical units should be included in different organizations with clear instructions.
5. Separate accounts for environmental expenditures. This will enable measurement and reporting of the costs and environmental performance of each company.

## References

1. Mulanazeri M. (2003), "Environmental Management Accounting", Journal of Humanities and Social Sciences, Third Year, No. 8.
2. SeyedNejadfahim S. R (1383), "Green Accounting", Accountant Monthly, 19th, No. 162.
3. SeyedNejadfahim S. R. (2004), "The Necessity of Environmental Accounting", Journal of the Stock Exchange, No. 42.
4. KazemzadehArseni N. (2004). "Environmental Accounting", Accountant Monthly, No. 159.
5. Jahrvchy (2006), Investigating Environmental Costing in Companies with Certificates of ISO14000 ", Thesis, Azad University, Tehran Research Branch.
6. King WessiFarhad., Soleimanian M. (2007), "Environmental Accounting: Costs and Applications in Decision Making", Accountant Monthly, No. 125.
7. Abdi Rassoul; YaghoubAghdam Farm; Environmental Accounting; National Conference on Accounting and Audit; Islamic Azad University, Nov.
8. DehghanKhaneghani B., KhaliliShomia M. R. (2011), "Environmental Accounting," Journalist Monthly, No. 15.
9. Jannani M.H., Heydari M. (2011), "Feasibility of Environmental Reporting Implementation in Iran", Quarterly of Management Accounting, Vol. 4, No. 9.
10. Dina Wahyuni, (2009) "Environmental management accounting: Techniques & benefits", <http://www.SSrn.com>
11. Hopwood A.G., (2009) "Accounting and Environment", <http://www.Sciencedirect.com>, p 433.
12. Hwang B-G., Ngw.j., (2012) "Project management Knowledge and Skills for green building: overcoming challenges", International journal of project management, May, P1.
13. Jankovic S., Persic M., Zanini-Gavranic T., (2011) "FRAME Work for the Development of Environmental Management Accounting in the Creation of Hospitality Industry", <http://www.SSrn.com>.
14. Jung, Kim and Rhee, (2001) "The measurement of corporate environmental performance", Journal of cleaner production.
15. Linli, (2001). "Encouraging environmental accounting in the world", Corporate environmental strategy, Vol8.