

A Study of Managers' Point of View on Environmental Accounting Information Disclosure of Listed Companies in Iran

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Abstract

Environmental accounting equips the organization with a new instrument to estimate process and report environmental expenses. The purpose of this study is to examine the managers' view points' of Tehran Stock Exchange of environmental accounting information disclosure. The information needed for this study was obtained through 72 questionnaires which were distributed among the active firms of Tehran Stock Exchange. These 72 firms were chosen by sampling method. To measure the validity of the questionnaires we used face validity and for the final measure we used Cronbach's α (alpha) test which its α was 0.77 for these questionnaires.

We used descriptive and inferential statistics for analyzing the data and use of Test of Comparing Average of Statistical Figures showed that the managers are willing to disclose the expenses and interests of their firms but are experiencing serious obstacles to do so. Also Test of Comparing Second Average showed that there are little differences between pharmaceutical, petrochemical and cement industries.

Keywords: *Environmental accounting, environmental interests, environmental expenses, industry.*

1. Introduction

Unbalanced use of natural resources makes us feel the need to legislate regulations to protect our environment; to do so we must know the expenses we impose on nature.

Given the fact that corporate financial performance is related, in part, to a company's environmental performance, stakeholders are increasingly paying more and more attention to environmental issues in a company. Investors and financial analysts need environmental information to evaluate overall performance and estimate environmental risks; governments need information to implement environmental regulations; and consumers need the information to protect their own rights. As a response, many companies have taken on the responsibility for environmental reporting and disclosure, by which they can provide information about environmental performance and sometimes corporate social responsibility and sustainable development, meeting the needs of the financial markets and at the same time providing itself with a positive environmental image.

The main goal of environmental accounting is to increase the accountability of the firms in order to prevent unrestrained damage to the environment. Giving prominence to the damages of obliviousness may attract the attention of domestic societies temporarily but the need to legislate a comprehensive law remains still. As mentioned the laws concerning the environment are inadequate but even these inadequate laws are not being implemented because of not paying enough attention to educate the managers about the environment as our number one supplier. The mainframe for performing these laws in

action is to be concerned preserving the environment for the next generation. Disclosure has a positive effect on publics' opinion about the firm which leads to added value for the firm. This may be a great motive for the serious executives of the firm. Considering various motives of managers in different companies around the world, this study aims to measure Iranian managers' view on disclosing environmental effect of their firm's activity. Do they have a motive to do so? Are they willing to disclose or not? What are the obstacles their encountering? Are there ways to remove them? The concept of Environment and Environmental Accounting: Environment is being used a lot but understood little nowadays. In Latin Environment means all the things surrounding us. But today it carries a very complex social, biological and physical concept in Ecology. It is a cake-like body which includes lithosphere, Biosphere, Atmosphere, and Hydrosphere. Environmental accounting is the activities to enable accounting system in recognizing, recording and reporting the effects and causes of demolishing the environment. Environmental accounting measures and evaluates the environmental data about the firm's activities and considers them in the process of decision-making, controlling, reporting and calculating the cost of goods and services. In February 2005 the ministry of environmental of Japan defined Environmental Accounting: Environmental Accounting concentrates on sustainable development, effective communication with the society and following the actions considered preserving the environment. It gives the companies the information mentioned below: The expenses of preserving actions. The benefit of these actions. Providing the best measuring tool in the world. Connecting the previous three preserving the environment means any action to prevent damage or reduce the effects of any socio-economic action affecting it or making it hard to preserve (Sumiani et al., 2007).

1.1 Background and status of Environmental Accounting

In the middle 70s the industrial companies encountered the concept of environmental debts. The mentioned companies first refused to report the damages caused by their activities but as the damages continued growing they had to do so (Cormier and Magnan, 1999).

In 1990 financial accounting standards board (FASB) published the journal number 6-90 under the name "capitalizing environmental pollution expenses." They concluded that there must be a plan to estimate the damages and reduce them (Sinclair and Estelle, 2003).

Disclosing environmental expenses, debts and liabilities:

Categorizing and disclosing the environmental expenses in financial statements includes:

- A) Environmental expenses which are referred to as expenses, debts or liabilities.
- b) Expenses or damages that are not mentioned in the financial statements.
- c) Liabilities.

Environmental expenses:

There are two questions needed to be responded in order to take these expenses in to account properly. First, is there an especial environmental expense which can be considered extraordinary items?

Extraordinary items are defined as:

- a) They are not expected to happen in some years.
- b) They are not results of normal activities.
- c) They are not depended on the decisions of managers or owners.

An example is the explosion of a nuclear reactor.

Second, should these expenses be categorized in operational expenses or non-operational expenses?

In most cases the answers is operational but sometimes it is not; like cleaning an abandoned lot.

2. Literature review

Ho et al. (1994) studied 182 companies and found that only 9 out of these 182 companies (4.9 percent) disclosed environmental information in their annual reports for the year 1991. In Korea, the study of Choi (1998) reveals that out of 770 listed companies 64 companies disclosed environmental information in their audited semi-annual financial statements for the year 1997.

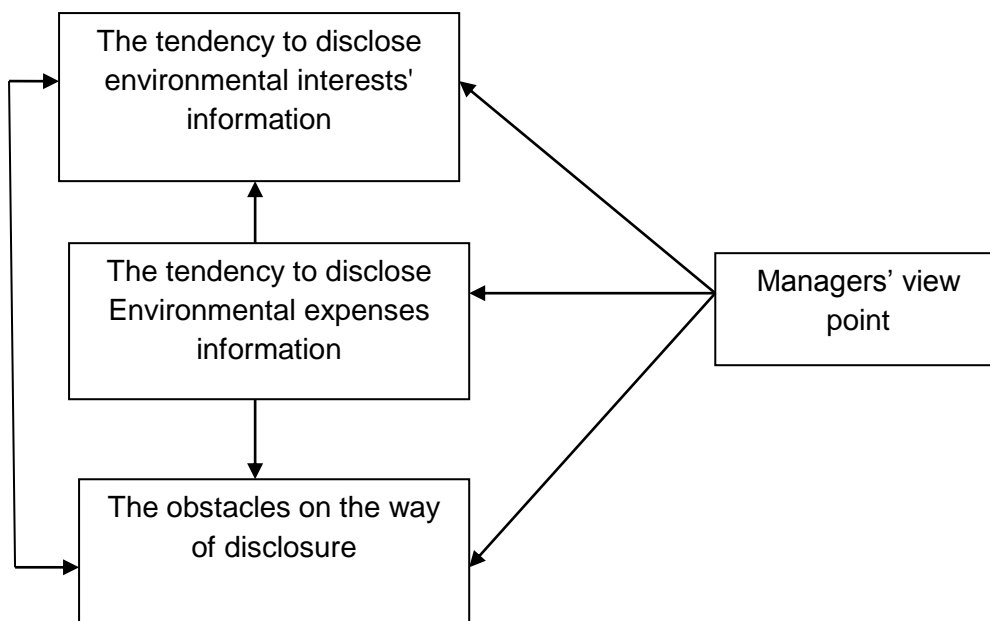
Tsang (1998) conducted a longitudinal study of social and environmental reporting practices by the banking, food and beverages and hotel industries over a ten-year period from 1986 to 1995. The researcher found that 17 (52 percent) out of 33 listed companies made social and environmental disclosure in their annual reports. The study observed a steady increase in social and environmental disclosures during the late 1980s and then a stable pattern since 1993. Kisenyi and Gray (1998) studied only four companies in Uganda and observed that none of them made any environmental disclosure in their annual reports. Savage (1994) studied 115 South African companies and found that approximately 63 percent companies had made environmental disclosures in their annual reports and the length of disclosure made by the number of pages had been 0.5.

Smith and Ashcroft (2007) conclude that the data provided by the firms are not necessarily true and the companies are acting weakly in reading and allocating environmental expenses. As a result they will have a great deal of liabilities in future. The guidelines of FASB are very helpful in developing the financial statements.

2.1 Research conceptual model

This model demonstrates that the tendency to disclosure of environmental interests and expenses are closely connected with the obstacles to do so. And both are connected with the managers’ and board of directors’ point of view.

Figure 1. Conceptual model of the study



3. Research Methodology

The study due to the practical purpose and to the way of gathering data of descriptive research of homogeneity; our measuring instrument was five Likert's questionnaire which its validity was calculated by Cronbach's α which the α was 0.77. It shows high valid. Its reliability was confirmed by contents validity which means specialists' viewpoint. Our statistical society is all the companies listed in Tehran Stock Exchange during 2003-2010. 72 firms are chosen by group sampling and then simple accidental sampling among those groups.

Hypotheses of the study:

According to the objectives of the study the following hypotheses are postulated in the study:

H₁: Iranian companies are willing to disclose their environmental interests.

H₂: Iranian companies are willing to disclose the information of their environmental expenses.

H₃: Iranian companies encountering obstacles to disclose their environmental reporting.

The results of the study

According to Table 1, the majority of participants are male with Bachelor degree. More than 80% are graduated in accounting field. As Table below reveals majority of participants have job experience between 5 to 10 years.

Table 1. general information of participants

Variable	Index	Frequency	Percentage
Gender	Male	64	88.90
	Female	8	11.10
Education	Diploma	4	5.60
	B.SC	50	69.40
	M.SC	16	22.20
	PhD	2	2.80
Age	21-30	6	8.30
	31-40	48	66.70
	41-50	12	16.80
	>50	4	5.20
Experience	<5	2	2.80
	5-10	28	38.90
	10-15	18	25.00
	15-20	12	16.70
	>20	12	16.70
Field of the study	Accounting	60	83.30
	Economics	8	11.10
	Management	2	2.80
	Other	2	2.80
Position	Financial manager	28	38.90
	Head of accounting	28	38.90
	Financial expert	16	22.20

	CEO	0	0.000
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In this part we test hypotheses of research by use Test of Comparing Second Average. The results are shown in Tables 2 and 3.

Table2. Test of Comparing Average of Statistical Figures

Variable	No	Average	S.D
Unwillingness to disclose environmental interests information	72	3.57	0.06611
Unwillingness to disclose Environmental expenses information	72	2.98	0.64890
Obstacles preventing disclosure	72	2.075	0.53081

Table 3. Results of the hypotheses

Inferential statistics						
Environmental variables	Empirical average is 3					
	T	D.f	Sig.	Differences of averages	95% percent	
					Lower limit	Upper limit
Unwillingness to disclose environmental interests information	8.618	71	0.000	0.57	0.4375	0.7016
Unwillingness to disclose Environmental expenses information	-0.283	71	0.000	-0.021161	-0.1741	0.1309
Obstacles preventing disclosure	14.772	71	0.080	-0.92407	-1.0488	-0.7993

Interpreting table 3, we find that the results of T-test for unwillingness is 8.816 in the 95% we first assumed which means the hypothesis is meaningful because meaningful figure was obtained 0.000 which is less than 0.05. For H_0 , "The firms are unwilling to disclose the information of their environmental interests" we found the T meaningful and both upper and lower limits positive which shows the average, 3.57, is more than empirical average. So H_0 is rejected.

Similarly and paying attention to the T and the average which is 2.98 we can conclude from the second row information that H_0 is rejected.

Analyzing the same information for the third row shows us that meaningful figure t is 0.080 and bigger than 0.05 which means for the T obtained and the average, 2.75, is less than 3. Considering all this we may conclude that the companies are facing problems and obstacles in the way to disclose environmental information so "The companies are not encountering obstacles in disclosing environmental information," is rejected.

Now we compare research hypothesis considering the firms being studied.

A) Test of Comparing Second Average for cement and pharmaceutical industries.

$H_0: \mu_S = \mu_P$

$H_1: \mu_S \neq \mu_P$

The results are presented in Table 4.

Table 4. Test of comparing second average for cement and pharmaceutical industries

Inferential statistics					
Environmental variables	Empirical average is 3				
	T	D.F	Sig.	95% percent	
				Lower limit	Upper limit
Unwillingness to disclose environmental interests information	1.651	38	0.107	-0.92235	0.90693
Unwillingness to disclose Environmental expenses information	0.388	38	0.70	-0.27961	0.41232
Obstacles preventing disclosure	0.071	38	0.94	-0.35777	0.38380

Test of comparing second average for research hypotheses in cement and pharmaceutical industries.

Analyzing the table we may find T for all three of them meaningless. So H_0 is meaningless. In the other hand upper limit is positive and the lower one is negative so the difference between cement and pharmaceutical industry in the field of research hypothesis is insignificant. So H_0 is accepted.

B) Test of comparing second average for cement and petrochemical industries.

$H_0: \mu_S = \mu_P$

$H_1: \mu_S \neq \mu_P$

The results are presented in Table 5.

Table5. Test of comparing second average for cement and petrochemical industries.

Inferential statistics					
Environmental variables	Empirical average is 3				
	T	D.f	Sig.	95% percent	
				Lower limit	Upper limit
Unwillingness to disclose environmental interests information	1.57	50	0.12	-0.56595	0.55020
Unwillingness to disclose Environmental expenses information	0.977	50	0.33	-0.19752	0.57187
Obstacles preventing disclosure	0.590	50	0.55	-0.23349	0.42770

Test of Comparing Average for research hypothesis in Cement and Petrochemical industries. Analyzing the numbers we find T in three cases meaningless. Similarly to the last table H_0 is accepted and research hypothesis is rejected.

c) Test of comparing average for petrochemical and pharmaceutical industries which the results are presented in Table 6.

$H_0: \mu_S = \mu_P$

$H_1: \mu_S \neq \mu_P$

Table 6. Test of comparing average for petrochemical and pharmaceutical industries

Inferential statistics					
Environmental variables	Empirical average is 3				
	T	D.f	Sig.	95% percent	
				Lower limit	Upper limit
Unwillingness to disclose environmental interests information	1.057	46	0.29	-0.15889	0.51043
Unwillingness to disclose Environmental expenses information	1.600	46	0.11	-0.49712	0.05679
Obstacles preventing disclosure	0.810	46	0.422	-0.16342	0.38367

Test of comparing average for petrochemical and pharmaceutical industries.

In this section also H_0 is accepted and research hypothesis is rejected.

D) Test of comparing average for men and women which Table 7 portrays the results of the study.

$H_0: \mu_S = \mu_P$

$H_1: \mu_S \neq \mu_P$

Table7. Test of Comparing Average for men and women

Inferential statistics					
Environmental variables	Empirical average is 3				
	T	D.f	Sig.	95% percent	
				Lower limit	Upper limit
Unwillingness to disclose environmental interests information	-0.282	70	0.77	-0.48207	0.36258
Unwillingness to disclose Environmental expenses information	0.023	70	0.98	-0.48320	0.49434
Obstacles preventing disclosure	-0.270	70	0.78	-0.45378	0.34545

Considering the T obtained and the limits we may conclude that H_0 is correct here too and H_1 is rejected.

4. Conclusion and suggestions

Considering the results of comparing average of statistical figures the firms are willing to disclose the information of their expenses in that area. In doing so they are encountering serious obstacles. These obstacles are not much but very serious and hard to deal with.

Paying attention to the results of Test of comparing second average we find that there is no significant difference between cement, petrochemical and pharmaceutical industries in the

attitude towards disclosure and the obstacles on their way. Also we found out that there is insignificant difference between male and female managers in the attitude.

Considering all the results drawn from the research we suggest that:

The main reason for not development of environmental accounting is lack of obligations, so legislation of new rules and laws and reforming the previous ones is of high priority.

There is not an instruction for those who are willing to disclose on how to do the action, so we must compile one immediately.

In teaching accounting, besides teaching the standard course we must pay attention to the modern needs of our society a major one is preserving environment.

So environmental accounting must be a part of the course of accounting in universities and colleges.

The main base of ISO 14000 standards is the commitment of senior managers to our duty for preserving the environment for the next generations. We cannot make them commit unless we educate them about the matter fully, including the standards, regulations and the ways to reduce pollutions. The next matter of importance is to provide them with an efficient environmental accounting system.

Disclosing is becoming more and more away to establish trust between the firm and investors. So firms must look at it as a way of increasing the added value, although we are not able to estimate the exact amount monetarily yet, but it will make the firm distinguished as a "green company".

The companies must admit that being green will make their company socially popular.

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