

The Relationship Between Provide Environmental Accounting Information and Improve Management Performance of the Companies Accepted in the Tehran Stock Exchange (Case Study for Companies in the Pharmaceutical Industry)

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Abstract: This study aims to evaluate the relationship between the provision of environmental accounting information and improving management performance of the companies of pharmaceutical industry accepted in Tehran Stock Exchange. This study is descriptive and applicable. The statistical population of present study is sample of 30 pharmaceutical industry companies accepted in Tehran Stock Exchange. Required data for research has collected through a questionnaire containing 16 questions on environmental accounting information performance improvement. For data analysis, the correlation method has been used. The results show that there is a relationship between the provision of environmental accounting information and improving management performance of the companies accepted in Tehran Stock Exchange.

Keywords- environmental accounting, performance improvement management, costing analysis, investment evaluation, Realization of organizational goals

1. Introduction

Due to the growing population and limited natural resources available, the issue of environment protection has been of primary importance to human societies [1]. Today, due to some environmental limitations, particularly in the field of international trade and narrowing competition, everyone agree on this subject that the managers of the business units are under increasing pressure that they not only reduce operating costs, but also the environmental impact of its operational activities to minimize. This pressure is applied from shareholders, government, group media, consumers, investors and other organizations. In order to reduce the environmental impact of its operational activities, companies have no choice but to include information about the environmental costs into account and their own decisions [2].

Accounting environment equipped organizations to the tools that appeal to traditional accounting system and modify it in such a way that process the costs of environmental information and report properly, and prepare for the managers. Environmental accounting system is based on the idea of evolution of classical calculation and its completion. In this regard, the costs of pollution and its removal as a function of the product or service along with benefits and costs of goods and services should be calculated. Environment accounting can make a connection ring between environmental managers and accountants and encourage both groups to work together in a united direction so that in the future, both company's financial performance and improved environmental performance will get better [3]. Researches conducted in the field

of environmental accounting express the role environmental accounting on financial performance and although the relationship between environmental accounting and improve management performance has not been studied by researchers so far, some researches in order to investigate the relationship between environmental accounting and performance improvements variables have been done. Since according to research findings, environmental accounting would affect performance of the company, this accounting system is certainly not unrelated with improved performance management and this study was conducted to explore these reviews. According to the findings [4] in Japan showed that the environmental performance of a company has a direct relationship with financial performance of that company. Zhank and Esterm [5] in a research in U.S. companies showed that the reasons for the lack of consistency and diversity of the results of previous studies on environmental performance and financial performance is the difference in the choice of control variables and a measure of environmental performance. Furthermore, previous studies have been based on the impact test of environmental performance on financial performance and have not provided any discussion and explanation about the direct mutual relationship these two performances. Their results showed that companies that have good performance financially are more willing to invest in environmental activities. On the other hand, environmental activities not directly related to increasing the profitability and therefore do not lead to increased profits and efficiency. Also, profitable and with good financial performance companies are those who are credible environmentally and have a top rank in the environment ranking. Cohen [6] compared market efficiency and accounting efficiency for U.S. companies in the two groups of pollutant and lower pollutant. His research results showed that companies investing in environmental affairs have no effect on market efficiency and companies accounting. Sarumpaet [7] in a research for Indonesian companies considering corporate environmental rankings as indicators of environmental performance, concluded that environmental performance and do not

significantly correlated with financial performance in Indonesian companies. Bickei and Friedman [8] in two separate studies found that there is no significant relationship between environmental performance and financial performance. The results of Halme and Huse [9] study showed that environmental reporting is highly dependent on the type of industry and company size has no impact on environmental performance. About the subject of research, no studies have been conducted in the country that investigates directly the relationship between environmental performance and financial performance. Increased concern and awareness of environmental problems by the community on the one hand and the increasing complexity of the business environment as a result of changes in consumers demand on the other hand, has led to deal with environmental issues. To manage and reduce environmental impacts, managing and measuring environmental costs of large companies has changed to two strategic issues. A number of authors, including Lopez and Gamero [10] believed that being proactive of environmental management in addition to reducing the environmental impact may lead to sustainable economic success. However, some authors considered that the economic success is equal to corporate performance management research focused on financial performance and environmental practices [11]. Business units with environmental considerations in business decisions can put together financial and environmental performance indicators for comparative evaluation. In addition, environmental management accounting helps managers using environmental information in decision-making processes that this led to the development of financial and environmental performance [12].

2. Statement of the problem

Along with economic growth, pressure on natural systems and earth resources intensifies. Business unit managers seek to reduce operating costs and environmental impacts resulting from operational activities. Due to its financial view, traditional accounting system does not provide information about the costs of environmental for

managers. The purpose of environmental accounting is to provide information to assist managers in evaluating performance, control, decision making and reporting for the organization or the area [12]. Environmental accounting has built based on environmental and economic concepts, criteria and values. To achieve this goal, there is a need to change in culture. Unfortunate reality is that the economy will continue to grow, but the environment economy is dependent on it, does not grow. Although economic indicators such as investment, production and trade show positive trends, but basic economic indicators for environmental conditions get increasingly negative. Today, environmental accounting has developed rapidly [13]. Suitable environment is essential for a long-term competitive success and to achieve it, environmental accounting is considered to be a critical tool. All of the above highlights the necessity of development of the environment accounting in our country [14]. Environmental accounting is considered as a framework for quantitative evaluation of a company's efforts towards environmental

Table 1

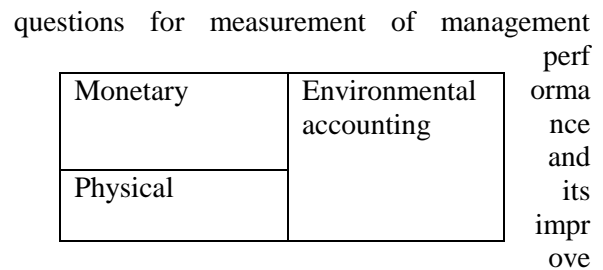
Costing Analysis	Improving management performance
Investment evaluation	
Realization of organizational goals	



protection. Through disclosure and environment reporting, companies can provide information about their environmental performance. According to the above and the importance of environmental accounting, in this paper, we try to assess the effect of environmental accounting information on improving management performance and due to limitations in the implementation of accounting system in Iran; some strategies have proposed to implement the system.

3. The research model

The research model is derived from the model Burritt et al. Burritt et al. [13] have classified accounting environment into two main elements: Monetary environmental accounting and Physical environmental accounting. Monetary environmental accounting focus on environmental activities of business unit can be expressed based on currency. Physical environmental accounting is referred to the impact of business unit on natural environment that is expressed as physical units [13].



ment. Therefore, the research method is survey. To answer to questionnaire Likert 5 item scale (strongly agree, agree, somewhat, disagree, and strongly disagree) has been used. Also, given that Cronbach's alpha coefficient of 0.87 was obtained, thus the reliability of the questionnaire is high. To verify the research hypotheses resulted from data analysis, Pearson's correlation coefficient was used. The research statistical population is consisted of the 30 companies of the pharmaceutical industry accepted in Tehran Stock Exchange.

4. The research method

This research is the first step to recognize the environmental reporting benefits in better management and to improve the performance of managers. In order to collect necessary data referring to scientific sources as well as interviews with a number of managers of companies of pharmaceutical industry, a questionnaire containing 16 questions has designed. 8 questions are considered for assessment environmental reporting and 8

5. Analysis

There is a relationship between the provision of environmental accounting information and

improving management performance of the companies of pharmaceutical industry accepted in Tehran Stock Exchange.

Table 2- statistical test of the relationship between the provision of environmental accounting information and improving management performance

Title	value
Pearson's correlation coefficient	0.243 *
Significance level	0.001
number	30

$P < 0/05^*$. $P < 0/01^{**}$

The resulted statistical table show that the significance level (0.001) is smaller than the standard level (0.05) indicating a significant relationship between the provision of environmental accounting information and improving management performance. Thus, there is a significant relationship between two variables (0.243); therefore, the above hypothesis is accepted.

Sub-hypothesis 1: There is a relationship between the provision of environmental accounting information and costing analysis of the companies accepted in Tehran Stock Exchange.

Table 3- statistical test of the relationship between the provision of environmental accounting information and costing analysis

Title	value
Pearson's correlation coefficient	0.217 *
Significance level	0.003
number	30

$P < 0/05^*$. $P < 0/01^{**}$

According to Table 3, the resulting significance level (0.003) is smaller than the standard level ($P < 0/05$). Therefore, the above hypothesis is confirmed and it is said that there is a significant relationship between the provision of environmental accounting information and

costing analysis companies accepted in Tehran Stock Exchange.

Sub-hypothesis 2: There is a significant relationship between the provision of environmental accounting information and investment evaluation in companies accepted in Tehran Stock Exchange.

Table 4- statistical test of the relationship between the provision of environmental accounting information and investment evaluation

Title	value
Pearson's correlation coefficient	0.253 *
Significance level	0.004
number	30

$P < 0/05^*$. $P < 0/01^{**}$

As can be seen, the resulting significance level (0.004) is smaller than the standard level (0.05) and correlation coefficient (0.453), indicating a high degree of correlation between two variables. Therefore, it can be stated with 95% confidence that the above hypothesis is accepted and there is a significant relationship between the provision of environmental accounting information and investment evaluation in companies accepted in Tehran Stock Exchange.

Sub-hypothesis 3: There is a significant relationship between the provision of environmental accounting information and realization of organizational goals in companies accepted in Tehran Stock Exchange.

Table 5- statistical test of the relationship between the provision of environmental accounting information and realization of organizational goals

Title	value
Pearson's correlation coefficient	0.221 *
Significance level	0.002
number	30

$P < 0/05^*$, $P < 0/01^{**}$

Given that the significance level (0.002) is smaller than the standard level (0.05), so this hypothesis is also confirmed and with 95% confidence and a 5% probability of error it can be said that there is a significant relationship

6. Conclusion

The results of test show that all the hypotheses have been confirmed so that the provision of environmental accounting information is positively related to improving performance management for pharmaceutical companies. For the second hypothesis is also worth mentioning that due to the resulting significance level (0.03), it can be said with confidence that the provision of environmental accounting information is positively correlated with costing analysis. The results of statistical test for the third hypothesis suggest that there is a positive relationship between the provision of environmental accounting information and investment evaluation at significance level of (0.04). For the fourth hypothesis, it can be said that the provision of environmental accounting information obtained a significant level of (0.02), therefore, the provision of environmental accounting information is positively related to realization of organizational goals.

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between the provision of environmental accounting information and realization of organizational goals in companies accepted in Tehran Stock Exchange

Given the hypothesis discussed and confirmed in this study, the establishment of environmental accounting can play an important role in improving management performance and consequently the performance of the pharmaceutical companies that finally led to increase the quantity and improve the service quality of pharmaceutical companies by providing accurate financial reports to managers in order to make optimal decisions. To increase the provision of environmental accounting information in pharmaceutical companies, in order to improve their performance, managers need to develop effective policies to provide environmental accounting information that leads to make their performance better in the long-term. In addition, attention to the provision of environmental accounting provide a vision for companies about the role of environmental accounting in obtain the future benefits and provide greater transparency for financial statements.

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