

Accountants, Accounting and Environmental Reporting: Review of Accountants' Attitudes on Environmental Reporting in Sri Lanka

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Abstract

Environmental reporting is becoming more and more common in business since most companies are aware of that environment as a business issue and it makes good business sense and positive public relations. Thus, companies are voluntarily motivated to produce environmental reporting. Sri Lanka as a developing country which has less physical and natural resources it is very important to make proper management over these resources in order to achieve a sustainable development in the country irrespective the controllership of resources. Therefore, accountants' contribution as an information provider is very important to make proper management over environmental issues of the firm. However, recent research on environmental reporting says that environmental reporting in Sri Lanka and contribution of accountants for successful environmental management is inadequate. Thus, this study attempts to examine accountant's attitudes on environmental reporting in Sri Lanka. A survey and interviews are used in data collection. The Institute of Chartered Accountants of Sri Lanka (LACS) circulated survey instruments among its members in late 2004. Finally, 48 useful responses were received. Additionally ten members of the LACS were randomly selected and interviewed them to get their feedback on environmental reporting. Study found that although, accountants have understood the significance of environmental disclosures their contribution for implement to disclosures of such information is low. Because of environmental reporting in Sri Lanka is still a voluntary requirement.

Keywords: *Environmental Reporting, Public Relation, Resource Management.*

Introduction

Environmental reporting is becoming more and more common in business. Because most companies are aware of the environment as a business issue (Descano, 1999) and it makes good business sense and positive public relations (Kolk, 2000). On the other hand environmentalism and people-centredness are twin concept that are crucial for advancement in sustainable socio-economic development in contemporary developing economies (Rahaman, 2000). Thus, companies are voluntarily motivated to produce environmental reporting since environment is an important management and social issues. According to a study by the Institute for Environmental Management, 35% of the world's 250 largest corporations now issue environmental reports (Kolk, 2000). Additionally, international surveys of corporate managers' attitudes indicate they are becoming more aware of the environment as an important management and social issues. Also,

recent British surveys indicate a more attuned attitude towards environmental matters (see, Touche Ross, 1990; Coopers & Lybrand, 1990; Deloitte, 1993). However, there are very few studies that seek to explore the extent to which corporate annual reports in developing countries reflect these issues and how corporate leaders perceive them.

Sri Lanka as a developing country which has less physical and natural resources it is very important to make proper management over these resources in order to achieve a sustainable development in the country irrespective the controllership of resources i.e. either of public sector or private sector. As a part of this management process environmental management will play a significant role providing information about consumption of natural resources, waste management and recycling ect. Contribution of accountant is very important as an information provider. However, recent research on environmental reporting says that

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environmental reporting in Sri Lanka and contribution of accountants for successful environmental management is inadequate (Rajakapase, 2002). Thus, this study attempts to examine accountants' attitudes on environmental reporting in Sri Lanka.

Literature Review

What is Environmental Accounting?

Environmental Accounting is defined as the practice of disclosing the impact of a company's activities on the environmental and its performance in managing the levels of these impacts (Deegan and Newson, 1996). According to Gray, Bebbinton and Walters (1993) environmental accounting may covers:

- Recognising and seeking to negative environmental effects of conventional accounting practice.
- Separately identifying environmentally related cost and revenues within the conventional accounting system.
- Taking active steps to set up initiatives in order to ameliorate existing environmental effect of conventional accounting practice.
- Devising new forms of financial and non-financial accounting systems and controlling systems to encourage more environmentally benign (favourable) management decision.
- Developing new forms of performance measurement, reporting and appraisal for both internal and external purposes.
- Identifying, examining and seeking to rectify areas in which conventional (financial) criteria and environmental criteria are in conflict.
- Experimenting with ways in which sustainability may be assessed and incorporated into organisational orthodoxy.

Evaluation of environmental Reporting

Traditional accounting approaches focus on the view of the enterprises as an economic entity with its main activities affecting the economy through its operations in markets - market for capital and factors of production

and market for its products or services. (see Hendrikson, 1982, p.18-19). Therefore, until early 1970s, accounting was treated as a technical activity, which was used as a recording function of the result of economic transactions. In this context accounting has been defined as "the art of recording, classifying, and summarising in a significant manner and in terms of money, transactions and events which are interpreting the results thereof" by American Institute of Certified Public Accountants (AICPA) in 1961 (see Beikaoui, 1992, P.22 ; Nasi, 1995, p.121). After that, in 1966 accounting has been defined as "the process of identifying, measuring, and communicating economic information to permit informed judgments and decision by users of the information" by American Accounting Association (AAA) (see Beikaoui, 1992, p.23 and Nasi, 1995, p. 121). Later on, in 1970, accounting has been defined as "a service activity. Its functions is to provide quantitative information, primarily financial in nature, about economic entities that is intended to be useful in making economic decisions, in making reasoned choices among alternative courses of actions" by Accounting Principal Board (APB) (see Beikaoui, 1992, p.22; Nasi, 1995, p.121).

Early definitions of accounting have emphasized that accounting as a recording function, which can be used to measure profit/loss, assets, liabilities and investors wealth etc. Accordingly, accounting was treated as planning and controlling technique rather than an information system. However, more recent definitions stress accounting as a producer of useful information/ reporting functions and accounting information is not limited to financial or quantitative nature, since public expectations have under gone with significant changes in recent decades (see Nasi, 1995, p.121). Especially, after 1970s there have been pressures to widen the content of accounting reporting. Consequently, social responsibility reporting models and methods developed by many authors (see Kettunen, 1979). Similarly, Heard & Blice (1981) note the expansion of advocacy movement of environmental reporting in USA and other developed countries during the 1960s and 1970s, and the significant increase in legislation

related to social issues, including the environmental and employees' health and safety with in the same period.

Ullmann (1985) posits the greater the importance to the organisation of the respective stakeholders' resources/ support, the greater the probability is that the particular stakeholders' expectation will be incorporated within the organisation's operations. According to this perspective, various social responsibility activities undertaken by organisations, including public reporting will be directly related to the expectation of particular stakeholder groups. So, one of the major roles of management is to balance stakeholders demand providing information about activities of the organization with achieving the strategic objectives of the firm (Freedman, 1984). In addition, Rubinstein (1989) states that the existing level of disclosure in financial statements may not be sufficient for stockholders and other stakeholders to reasonably assess a firm's environmental risk. Therefore, there was a great necessity to provide not only financial information but also other information relating to social, environmental and human resources, which the firm has, or arising due to its operations, to its stakeholders/ interest groups. Likewise, in recent years, investors, government agencies and other stakeholders are demanding more disclosures of company's social and environmental information, because of their interest in environmental issues and their concern about the magnitude of related costs and liabilities (Mastrandones & Strife, 1992).

Although, historically, few companies have made disclosure relating to social and environmental matters in their annual reports (see, Gray, Owen & Maudus, 1987; Andrews et al., 1989; Mathews, 1993; Bebbington & Watter, 1993) in recent years that quantity, quality and volume of disclosed social and environmental information have been increased significantly since many companies are becoming more responsive to stakeholders' demand for information of corporate environmental responsibility of business organizations. Surveys of corporate managers' indicated that they are becoming more aware of environment as an important

management and social issues. Internationally, 90% of corporations surveyed agreed with the statement "the environmental challenges is one of the central issues of the 21st century" (UN, 1991). Also, recent British surveys indicate more attuned attitudes towards environmental matters (see, Touche Ross, 1990; Coopers and Lybrand & Deloitte, 1990; Deloitte, 1993). From the above facts, it is clear that investors, managers, and other stakeholders are more concerned about social and environmental interactions of their firms and demand for such factors have been significantly increased (Belkaoui, 1976; Ingram, 1978; Jaggi & Freedman, 1982; Shane & Spicer, 1983; Epstein & Freedman, 1994; Tilt, 1994; Deegan & Rankin, 1997 and Rajapakse, 2001). Thus, environmental reporting has come in to existence to fulfil social accountability of organizations (Gray, 2000).

Social requirement of environmental reporting

Deegan and Rankin (1997) studied this issue. The groups studied were shareholders, stockbrokers, research analysts, accounting academics, representatives of financial institutions and a number of organizations performing a general review or oversight function. They found, at statistically significant levels, that shareholders and individual groups such as consumer associations, employee groups, industry associations environmentalists groups and accounting academics consider that environmental information is material to the particular decisions they undertake. The annual report was perceived by the total group of respondent to be significantly more important than other source of information concerning and organization's interaction with the environment.

In a further study of corporate environmental disclosure practices, Brown and Deegan (1999) argue that if there is increased community concern about environmental issues, then the increased concern should be matched by increased disclosures if, consistent with Legitimacy theory, disclosure policies are a function of community concern. Brown and Deegan's results were also consistent with O'Donovan (1997). Donovan

interviewed senior executives from three large Australian companies and confirmed that corporate disclosures of environmental performance information is one of the ways to correct 'miss-perception held or presented by the society about environmental performance of organizations.

Additionally, a number of research studies emphasise the need for a broader range of social and environmental information to stakeholders. For example, relevance of social and environmental information to investors by assessing their impact on stock market return (Belkaoui, 1976; Ingram, 1978; Jaggi & Freedman, 1982; Shane & Spicer, 1983), investors' demand for social and environmental disclosures (Epstein & Freedman, 1994), pressure of lobby group for environmental disclosures (Tilt, 1994), demand for environmental information and expectations of annual report users (Deegan & Rankin, 1997). Result of this study indicates that the majority of the annual reports users believe environmental information as a significant factor in their decision-making process. Moreover, Deegan & Rankin (1999) emphasise that "various groups in society demand environmental performance information and that some annual report user groups rely upon corporate reports for informing themselves, at least in part, about the environmental practices of particular organizations. Environmental information could be used for determining a number of issues such as whether to invest or lend funds to an organization, whether to consume an organization's products, whether to use an organization's product in the production process, and whether to supply labour or other resources to the entity. Environmental information may also be important in determining whether local communities will support the continued operation of a particular organization within their local neighbourhood"

In Sri Lanka, during the last few years, stakeholders' (society's) awareness of ecological, social and environmental matters, have been significantly increased. Non-Governmental Organisations (NGOs) and many other voluntary social movements have come up to protect physical environment of

the country. For examples Siriwardena, (2000a); de Silva, (2000); Wimalasurendre, (2000); The Island, (2000a); Munaweera, (2001); Wimalarathana, (2001); Weththasingha, (2001) and, Colombopage, (2001). Additionally, The National Environmental Act (1980) has empowered through its amendments by the Government of Sri Lanka to protect and promote environmental condition of the country.

Although there is no much research evidence, Rajapakse (2001) says that there is an increasing trend of stakeholders' demand for environmental management and sustainable development information of business organizations. Public dissatisfaction about the inadequate disclosure of environmental information is also evident from Siriwardena, (2000b) and The Island, (2000c).

Accountants and environmental attitudes

Social norms and values are not immutable. Changing social values and norms constitute one motivation to make changes in external reporting with special emphasis on organisational legitimacy and social responsibility. With the social and economic changes, existing accounting system need to be modified (Burchell, Clubb & Hopwood, 1985). Perera & Mathews (1991) emphasise that societal values influence accounting systems to disclose additional information. Hence, there should be a positive attitude among report preparers (top management, accountants and auditors) to disclose environmental impact and social responsibility of their entity as additional disclosures. Because of that environmental issues are business issues (Gray, 1993). He further added that Professional accounting bodies of many countries have understood that, the environmental is clearly some thing that accountant need to be aware of, and be involved in. Thus accounting professional bodies should take responsibility to implement following factors to improve quality and extent of environmental reporting practices.

1. The raising of awareness of environmental issues, of its impact on the profession, and the influence accountants can have on the environment.

2. The development of guidelines to assist the profession to identify environmental issues and reports on them.
3. Broad-based training need to be provided.
4. The promotion of the best environmental accounting practice

Moreover (Gray, 1993) identifies the way in which accountant can contribute for environmental management and ?

- 1 Modify existing accounting systems (as in energy control).
- 2 Eliminating complicating elements of the accounting system. (As in investment appraisal).
- 3 Plan for financial implication of the environmental agenda (as in capital expenditure projection).
- 4 Introduce environmental performance to external reporting (as in annual reports).
- 5 Develop new accounting information system (as in eco- balance sheet).

Accordingly, the Vision financial accountants, management accountants and auditing and the role of financial accountants, management accountants, system accountants, project accountants and auditors should all be changed in order to implement an expected changes in financial reporting.

Studies in developed countries suggest that there is a growing trend of attitudes and awareness of report preparers that environment as an important management and social issue (Gibson & Guthrie, 1995). As a result of the growing and attuned attitudes towards the environmental matters, report preparers motivated to produce better information about environmental issues of their entities (UN, 1991; Ross, 1990; Deloitte, 1990).

Bebbington et. al. (1994) found that there is a growing concern of UK accountants' attitudes on environmental reporting. Deegan, Geddes and Staunton (1995) found that Australian accountants support to incorporate environmental issues with financial statements of the business entities. Rahaman (2000) says

that senior management perceptions of social and environmental reporting are positive.

Methodology

A mixed research strategy is employed in this study to maintain a mixture of advantages of quantitative and qualitative approaches, particularly to maintain validity of quantitative data (Hussey & Hussey, 1997). Accordingly, a survey and interviews are used in data collection. The Institute of Chartered Accountants of Sri Lanka (IACS) circulated survey instruments/ questionnaires, among its members. As their response rate is low, survey instruments with covering letters and return envelopes were mailed to selected members of the ICASL in late 2004. Finally, 48 useful responses were received. Questionnaire is designed to examine their attitudes on environmental reporting practices in general and particularly in the Sri Lankan context and it is divided into five sections such as organisational policies and management support, role of accountants and accounting, reporting practices and guide lines, motives of business organisations and knowledge and awareness of report preparers. Additionally ten members of the IACS were randomly selected and interviewed them to get their feedback on environmental reporting.

Experience from Sri Lanka

Although, accounting was introduced to Sri Lanka by Great Britain (UK) during the colonial period to facilitate the plantation sector, so far no attempt was made to develop an accounting system suitable to local conditions (Perera, 1975). It implies that, accounting culture of Sri Lanka is still based on western classical philosophy, which is more emphasised on technical aspects of accounting. However, UK and other developed countries have identified the social requirements of accounting and have developed accounting discipline by way of introducing new accounting curriculum and accounting practices enabling to meet those requirements (Gibson, 1997). Consequently, accounting report preparers have perceived social requirements and they have changed their attitudes and behaviour in order to produce such information and at present most

of the companies issue social and environmental reports as supplementary reports to the existing traditional financial reports (Bebbington, 1994; Kolk, 2000).

Report preparers in Sri Lanka and they do not have adequate knowledge, training and guidelines, which facilitate the environmental reporting. Absence of environmental accounting courses in accounting curriculum of academic and professional accounting programmes has adversely affected the development of positive attitudes and behaviour of report preparers to initiate environmental reporting practices in Sri Lanka.

Sri Lankan accountants' attitudes on environmental reporting were evaluated through the questionnaires and interviews. Their responses are summarised as follows. Since environmental issues are treated as business issues most of the business organisations have initiated an environmental management group within the organisation. Thus accountants were asked, "*company should have a clear environmental management policy*". All respondents agreed to this statement because of they personally believe that protection of environment is important for their future survival.

Without profit and environmental protection there is no survival of the firm. At present most of the companies emphasis on triple bottom line. Thus "*company policies should address both profit and environmental protection*". As a principle all respondents were agreed to this statement and further more they mentioned that, "*we can think profit if there is a business. No environment, no business. But still we more emphasises on profit rather than environmental protections*".

Accountants as members of the management team of the firm, "*accountants should actively participate to the environmental management activities*". All of them agreed to this statement and the problem is that accountants' involvements in company environmental matter is not sufficient. Because of their negligence and negative perceptions on environmental matters as their main focus is profits.

Environmental reporting practices of developing countries are lag behind that of developed countries. "*Current environmental reporting practices of Sri Lankan business organisations are incomplete and inadequate*". All respondents were agreed to this statement and they mentioned, "*we do not disclose complete environmental information. Most of the cases we disclose only favourable narrative information probably with in the chairman's or director's statements*".

Accounting reports should satisfy the users expectation of information. Thus it is a duty of the report preparers to disclose all relevant and material information to report users. The next question address to accountant is that "*the company annual report preparers in Sri Lanka do not perform their duties to satisfy expectation of the society*". 60% of the respondents were agree to this statement where as other 40% do not. Their explanation is that "*we can not satisfy all of them*". But the question is that, is it the responsibility of accountants?

Accountants- financial accountants, management accountants, project accountants, system accountant and auditors role should change with the amalgamation of environmental issues in to existing accounting reports. Because of environmental information may useful to external and internal users of accounting reports. Thus, accountants were asked, "*environmental issues have nothing to do with accountants*". All respondents were disagreed with this statement and they say, "*we have to actively participate in environmental reporting agenda. But we do not motivate to do so, since it is still a voluntary disclosures in our country*".

Most of the developed countries such as UK, Australia, New-Zealand, Netherlands, Poland and Japan have introduced legal framework and reporting guidelines for environmental reporting. Thus, "*accountants were asked whether the prevailing accounting standards, guidelines and policies adequate to cover environmental reporting practices in Sri Lanka*". All respondents said that there are no particular accounting

standards in Sri Lanka to cover environmental reporting. Therefore this the time to introduce such type of standards to facilitate disclose of environmental issues since stakeholders demand for environmental reporting has been increased during the last few years.

Accounting statement should produce all material information to uses of financial statements. Since stakeholders concern on environmental matters has been increased they expect results of the environmental transactions of the firm. Unless, financial statement do not show the expected true and fair view of the financial statements. Thus accountants were questioned the *“true and fair view of financial statement without producing environmental disclosures”*. About 40% respondents were accepted financial reports do not show true and fair view with out producing environmental information where as other 60 % do not.

Stakeholders are the owners of the resources available in the society. Thus they have inherent right to know how business firms consume social resources. Then accountants were asked *“do you recognise stakeholders’ rights to demand environmental disclosures”*. All respondents were agreed to these statements.

Report preparers should have adequate knowledge and training to merge environmental disclosures with existing financial reports. Accountants were asked *“do you have adequate knowledge and training of environmental reporting”* All respondents said that they do not have such a knowledge and training since curriculum of professional accounting examinations do not much emphasis on this issues. Not only professional curricular but also academic curricular do not taken into account this issues.

Most of the business organisations motivate only by profit. However, some leading business organisations consider not only profit but also environmental security. 80% of the responded accountants said that most of the Sri Lankan business organisation mainly motivated by profit. They do not think to get the advantages of environmental security to reach their profit targets. For example,

advantages of recycling and by product from waste ect.

One of the main reasons for voluntary disclosures of environmental information is to increase image of the company. All respondents accountants to the questionnaire were agreed that environmental reporting only for company image. Further more they said it is an additional burden to them and cost benefits of environmental reporting.

Conclusion

With the changes in social attitudes information requirement the society may also be changed. This study attempts to analysis the information requirements of the stakeholders in the modern society, which more concern on environmental security and sustainable development and how accountants’ role should change with the changing business environment to produce more useful information to users. Study understood that environmental concern on society has dramatically increased during the last few decades and environmental reporting is becoming more and more common in business since most companies are aware of that environment as business issues. Therefore, many developed countries have introduced legal and statutory requirements of environmental reporting. Study further understood that accountants’ role should be changed to meet stakeholders’ requirements of information.

In Sri Lankan context, accountants’ attitudes towards the environmental reporting are still negative. Because of majority of them think environmental reporting is useless effort since there is no accepted guidelines and measurements and it may be an additional burden to medium and small scale business organisations”. However, common version of the remaining respondents is that *“the role of accounting and accountants should be expanded enabling to disclose non-financial information such as environmental information with in an existing financial reporting framework and clear environmental management and environmental accounting policies should be developed at national level by the professional accounting bodies.*

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The Effect of 'Z-score' System on Qualification to Universities with Special Reference to Tamil Medium Schools in Ampara District

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Abstract

Before the year 2000, students aspiring to enter the universities offered four subjects at the General Certificate Education Advanced Level (G.C.E. (A/L)) Examination. In the year 2000, students taking the examination were required to offer three subjects and sit a Common General Test. In the years 2000 and 2001, two separate groups of students sat the G.C.E. (A/L) Examination under two different curriculum specifications and they can be designated as the four subjects (S_4) and three subjects (S_3) groups. Before the year 2000 students were ranked and selected to universities on the basis of their aggregate marks. In the year 2000, this system was changed and a common policy was introduced to select students to university. The common policy is called 'Z-scores' system.

In the G.C.E. (A/L) education in Sri Lanka there are four streams are available: Biological Sciences, Physical Sciences, Management & Commerce and Arts. Each stream consists of many subjects, among these subjects some are harder than the others. Hence the students have more chance to qualify to university those who select easier subjects than the harder subjects in G.C.E.(A/L) before the year 2000. Therefore, the aggregate marks system is biased to select students to universities. The universally accepted statistical solution to this problem is 'Z-score' system.

The objective of this research is to carry out to test whether this introduction of Z-score system has made an effect on the qualification of students to universities from Tamil medium schools in Ampara district or not. 13 important Tamil medium schools were selected for this research study. This overall Z-score system plays a major role on qualification to university since the individual Z-score for every subject relies on its weight or hardship. Since students are allowed to select subjects from several subject combinations in each stream the problem of scoring arose due to the hardship of every subject in that stream. This leads to find a new solution to rank the students to select them for university qualification.

This new statistical system has made its effect on Arts and Management & Commerce streams effectively when compared to Biological and Physical sciences stream, because these in streams subject combinations are a very few. Although the Z-score system has significant effect on the qualification of students to universities of Tamil medium schools in Kalmunai, Sammanthurai and Akkaraipattu educational zones due to the different subject combinations, apart from its effect, the number of students qualifying to universities from all these schools showed a downward trend before Z-Score system's implementation. This showed the poor status of these schools' education in the past. The educational progresses of these schools are going down.

Keywords: Education, GCE.(A/L), Z-Score, Z-Distribution, University, Stream, T-test, ANOVA, Mean Comparisons.

Introduction

The qualifications to universities from Tamil medium schools in Kalmunai, Sammanthurai and Akkaraipattu educational zones in Ampara district seem to be reducing for the past several years. But it has been observed that the fall

of the number of qualifying students is very much noticeable during the years from 2001 to 2004 when the Z-Score system was introduced and implemented. The examination criteria by the Department of Examination of Sri Lanka for selecting students to university

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