A Functionalist Perspective of Environmental Disclosure and Accountability

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ABSTRACT

The purpose of this paper is to provide greater insight into environmental accountability and disclosure from a functionalist perspective. Discussion of the utility of information supplied by corporations to discharge accountability is dependent on societal attitudes to the function of the corporation in society, corporate environmental responsibility and the issue of economic growth. Similarly, the usefulness of environmental information is predicated on perceptions of society as to the importance of environmental issues. The polarisation and politicisation of opinion regarding global warming denies scientific evidence and compounds issues of accountability and disclosure. A postal questionnaire was used to determine societal attitudes to key aspects of corporate functionality, accountability and disclosure. Questionnaire participants were drawn from three categories of society; shareholders, environmentalists and shareholder / environmentalists. Results indicate that the majority of respondents believe the function of the corporation in society is economic and social but there is a significant difference between shareholders and the other user groups. The preferred option of respondents regarding environmental accountability is for companies to be in advance of law and opinion. The sustainable development position, described a continuum, is supported by the shareholder and shareholder/environmentalist groups. The survey research method adopted in this paper suffers from the stated perceptions of respondents rather than attempting to reveal attitudes via alternative approaches. This study demonstrates that there is an attitudinal change towards corporate responsibility that will necessitate re-evaluation of corporate disclosure and accountability.

INTRODUCTION

The connection between ideology and corporate accountability and decision usefulness of information provided by corporations needs further investigation as the heightened importance of environmental degradation affects society and the economy. The economy and corporate activity in particular are part of the complex mosaic of society and as artefacts of society are accountable for their actions. Attempting to gain understanding of the value systems of various groups within the community towards companies will enable more informed discussion on environmental performance issues.

Emotive phrasing such as corporate responsibility reporting may have different meanings for different people and, therefore, it is appropriate to apprise individuals opinions in regards to some of the descriptions attributed to the term. Defining corporate environmental responsibility is fraught with problems. Whilst pragmatic definitions do not necessarily provide the most appropriate approach, the alternative of various researchers providing concept descriptions, has also had problems. Emotive phrasing such as corporate responsibility reporting may have different meanings for different people and, therefore, it is appropriate to apprise individuals in regards to some of the descriptions attributed to the term. Determining attitudes towards the economic growth versus environmental conservation debate and the related middle ground concept of ecologically sustainable development may reflect attitudes towards corporate performance both economic and environmental. Such an investigation may reveal changing community attitudes to traditional notions of performance.

LITERATURE REVIEW

The corporation performs a function in society and how society perceives that function influences corporate activities and, consequently, disclosures. If the perception of society is that corporations perform only an economic function then, only economic information will be reported. Goldberg (1965) identified the inevitability of change in society and accounting and in so doing identified the reactionary nature of accounting.

... new concepts of corporate goals in business ... are gradually being evolved to replace or supplement the 'maximization of profit' that has for long been accepted as the overriding, if not the sole, criterion of managerial effectiveness; the maintenance of the economic system, the development of 'a desirable image of the business', provision for the education of youth, have been expressed as among the objectives of the large corporation (op. cit, p359)

The progression of society and its institutions of which accounting is one is a natural change phenomena. Not only does Goldberg clearly identify the move to social disclosure but also the dynamic nature of social artefacts.

There would be little profit for accountants – or any other members of society – in assuming that our social institutions will endure forever without change: they are in a process of change right now (loc. cit).

The 'process of change', at some stage requires the actuality of the change to be acknowledged. Users identifying the plurality (more than one function) of the modern corporation reinforce the possibility of changed circumstances identified by Goldberg.

The term 'decision usefulness' seems to have been identified with descriptions embodied in conceptual frameworks that depict economic information as being decision useful. The concept of accountability through the antecedent term, stewardship, also has connotations of economic utility. The relationship between decision usefulness, accountability and stewardship is expressed in the following quotation that characterizes mainstream accounting research.

Decision usefulness is the primary objective for financial reporting, having consumed the objective of accountability (stewardship), so long held to be the justification for accounting. As an objective, decision usefulness reflects the utilitarian philosophy underlying most conceptual frameworks: concern is for the efficient allocation of resources which is in the interest of society as a whole. Accountability, on the other hand, reflects concern for some individual interest. (Stanton, 1997 p684)

In more recent times, accountability has been identified with a broader social as well as an economic purpose that may well be the case for the notion of decision usefulness reflecting changing ideological attitudes and philosophies. The reflection on 'concern for some individual interest' does not preclude decision-making. It is contended that issues of accountability shape future thinking through retention of 'memories' and, therefore, affect the individual decision process.

Goldberg (1965) identified that social relationships are the primary focus for accounting researchers.

One of the tasks of the accounting theorist is to elucidate the characteristics in relationships that make them accountable. It is submitted that accountable relationships are chiefly (though not solely) social in character, that is, they derive the greater part of their meaning from a social context. (p38)

Later, Goldberg identified two specific relationships that are important for concepts of disclosure. The relationship of persons to property rights and the limits placed on those property rights; change is identified as constantly occurring. More recently it seems that society is placing greater limits on property rights particular as they relate to environmental degradation. How this change reflects on corporations and their 'accountable relationships' is of particular importance to theorists with regard to legitimacy, stakeholder and political economy theories and in a practical sense with regard to whether the disclosure is in a traditional monetary format or some other display format. Defining the relationships that reflect altered circumstances is the first step towards adapting accounting to changing societal needs.

Diegling et al (1996) identify five accountability rationalities that may support an 'accountable relationship':

Legal; fundamental rules of assigning responsibility, in regulating differences and containing conflict;

Economic; sets out the methods for evaluating alternative uses of resources;

Technical; stipulates the expert or knowledge-based criteria by which means are selected in relation to ends; Social; conditions which have to be met if social integration is to be maintained; and, Political; pragmatic requirements for sustaining the integration of decisionmaking structures and processes. (Adapted: Diegling et al. 1996)

These five possible 'accountable relationships' suggests that companies have a much greater obligation to account for their actions to a much broader audience than is presently acknowledged. Similarly, companies in their annual reports need to identify this greater obligation of accountability. Whilst the present reporting regime is directed principally at explicit users, government initiatives, for example, the Public Accounts and Estimates Committee of the Parliament of Victoria's Inquiry into Environmental Accounting and Reporting (2000), suggest that broader based company reporting to include implicit users, particularly as reporting relates to the environment, is inevitable.

According to Spacek (1969) corporate disclosures affect decisions and as a consequence accountants have two primary responsibilities that define the bounds of accountability.

- a. That the public understands the facts we are reporting; and,
- b. that we are reporting the facts within the framework of that understanding and are responsible for the reliability of the facts so reported. (Spacek 1969 p150)

Specifically, the issue of accountability would avoid the likelihood of the factual situation being subjected to the following occurrences.

- a. to be manipulated;
- b. to be influenced by the individual concepts of the persons that handle and post them; or,
- c. to be withheld, minimized or exaggerated because we think the reader will be benefited there from i.e., a paternalistic viewpoint. (Spacek 1969 p150)

Spacek's view of accountability is equally applicable to all areas of everyday life not just accounting but it is reporting facts within a framework of understanding that causes concern because, in accounting, there is no one framework of understanding.

Whilst Spacek's ideas regarding accountability are reasonable, the practical application of accounting can mean that individuals interpret the disclosures of companies differently. As careful as accountants may be to report the 'facts', the interpretation of those 'facts' is the prerogative of the user. The following statement highlights this point and offers a possible solution.

One long unresolved issue of accounting has been what we ought to account for. It seems that this basic question has been with us since Pacioli. As with other issues, we have been unable to reach a resolution. I think that the examination of decision models is a promising approach to resolving that issue, to provide an answer to what we ought to account for. (Sterling 1979, p 87)

Asking users what is useful for their decision making seems a productive process that not only Sterling identifies but also Dierkes and Antal (1985). However, the decision-useful approach has its detractors. Gray et al (1996) make the following statement:

Decision usefulness purports to describe the central characteristics of accounting in general and financial statements in particular. To describe accounting as useful for decisions is no more illuminating than describing a screwdriver as being useful for digging a hole – it is better than nothing, and therefore useful, but hardly what one might ideally like for such a task. (1996, p75)

Three issues arise from the statement:

- 1. that decision usefulness describes the characteristics and participants of financial statements;
- 2. that accounting's usefulness is deteriorating; and,
- 3. that asking users to determine the usefulness of information is not a satisfactory research option.

The last issue, whilst not directly mentioned in the above statement underpins prior discussion in Gray et al (1996). Alternative terms to decision usefulness such as 'user utility' (Guthrie and Parker 1990) and 'usefulness and use' (Dierkes and Antal 1985) broaden the applicability of decision usefulness or user utility theory to include accounting for social and economic performance. To reiterate, if this is the case then significant changes need to be made in areas such as accounting regulation and education.

The deterioration in usefulness of accounting has been an issue for accountants for many years. Sterling (1979) identifies the issue as 'what we ought to account for'. So the problem may not necessarily be deteriorating usefulness but rather keeping abreast of the needs of users with regard to the types of information considered useful.

The limitations of asking users, through the research technique of survey, to indicate or state their preference for certain types of information is well understood. There are alternative research techniques that can reveal information through experiments and there are also techniques that provide judgmental outcomes. Combinations of the above provide much stronger evidence of the wishes of users than mere statements of preference. An effectively constructed research instrument will not only vary the research technique but also will depend on prior research that suggests the importance of certain information and types of reporting. In other words, obtaining information from users is not undertaken in isolation of prior research or restricted to one information collection technique.

Diegling et al (1996), in identifying five accountability rationalities provide information concerning the areas in which a company would be accountable. A simple dichotomy of economic and social accountability is used throughout this paper and more generally covers the areas addressed by Diegling et al. Accounting, in recent times, has moved from supplying economic performance information to the public as a free good to supplying information that is highly regulated and directed at certain users. The supply of social performance

information is now taking a similar path with governments seeking to regulate corporate disclosures in the environmental area. Preparers now face the likelihood of reporting to a substantial group of users, in both number and influence that require information about the social (specifically environmental) performance of entities. The changing demands on accounting, brought about by users interested not only in the economic performance of companies but also the social performance, may present some interesting extensions to information usefulness theory.

RESEARCH METHOD

Shareholders were randomly chosen from three Australian based companies (also randomly chosen) listed in the top fifty companies of the Australian Stock Exchange (ASX). The rationale for this was that the vast majority of shareholders are represented in the top fifty companies. The companies from which participants were selected are; Australia & New Zealand Banking Group Limited (ANZ), Pacific Dunlop Limited (PDP) and ICI Australia Limited now Orica Limited (ICI). Surveyed environmentalists were drawn from the membership of the Environmental Institute of Australia (EIA). Participants were natural persons resident in Australia and over the age of eighteen. Organizations and companies, that formed a significant part of the databases mentioned above, were excluded when establishing mailing lists.

There were 810 shareholder participants and 1072 environmental participants in the survey; a total of 1882. An invalid response contained minimal or no answers to questions whilst an ineligible response has been deemed to be those participants below 18 years of age, deceased, too ill to participate, mail returned unopened or were overseas residents. Response rates calculated in accordance with Zikmund (1994), surveyed less non-response, indicate a high response rate overall of 57.8%, whilst for environmentalists the rate was 61.6%, and for shareholders the rate was 52.8%. Valid responses were less than response rates as can be identified by an inspection of Table 1.

Table 1S	urvey Respon	nse Rates				
	Total		Shareh	olders	Environ	mentalists
	Ν	%	Ν	%	Ν	%
Surveyed	1882	100.0	810	100.0	1072	100.0
Non-Response	794	42.2	382	47.2	412	38.4
Invalid / Ineligit	ole 212	11.3	170	21.0	42	3.9
Valid	876	46.5	258	31.8	618	57.7

Table 1	Survey	Response	Rates

As indicated above a third group shareholder/environmentalists were created from the responses of the shareholder and environmental groups. Therefore the following represents the three categories of users based on the selection requirements above.

Shareholders	253
Shareholder/environmentalists	240
Environmentalists	<u>383</u>
Total	876

RESULTS AND FINDINGS

A hypothesis in this project is that corporate performance is assessed from the ideological perspective of the user. If a user has an economic functionalist perspective of the corporation then it is likely that the assessment of corporate performance will be on an economic basis. Conversely, belief in the social function of the corporation will result in assessment of performance being socially based. Therefore, utilisation of corporate disclosures will be partially determined by the ideological belief structures of the user. An individual's ideology affects the view of social reality and, therefore, of what is perceived as being legitimate corporate activities, the reporting of those activities and the usefulness of various displays of the reporting. Therefore, claims as to display usefulness are affected by an individual's ideology.

Perceived usefulness of environmental financial information will be largely dependent upon respondents' views of the importance of environmental issues. Protection of the environment has had the effect of polarising opinion between those who advocate economic growth and those who see themselves as conservationists. As with political and social issues, the degree of importance placed on these issues varies enormously. The difficulty not only centres on determining a respondent's ideology but also on attempting to determine what is meant by conservation or economic growth. There is probably a significant degree of variation so that when one person speaks of economic growth they are talking about economic growth at the expense of conserving the environment whilst others may feel that economic growth should be constrained by environmental concerns.

It is therefore quite difficult to define environment for it will mean different things to different people. Likewise, economic growth is equally as difficult to explain because it requires the individual to make an assessment, usually not stated, that economic growth is at the expense of environmental concerns. With a polarisation of points of view on the issue of conservation versus economic growth the imperative has become a pragmatic concept deemed ecologically sustainable development (ESD). This term is also necessarily difficult to define given its origins.

Attitudes to Environmental Conservation Versus Economic Growth Debate

The environmental accounting literature tends not to define environment unequivocally (or for that matter what constitutes accounting information). Respondents' attitudes to the issue of environmental conservation and economic growth need to be known as it is presumed that these will determine the relevance placed on environmental financial information for decision-making purposes by respondents. With this in mind, respondents were asked to mark on a continuum their position. The continuum extended from conserving the environment at any cost (deep green) at one end to economic growth at any cost (radical economic) at the other.

The five positions chosen to describe the debate were 'radical green,' 'favour green,' 'midposition (ESD),' 'favour economic' and 'radical economic.' The number of respondents that incorrectly answered the question, that is, respondents who did not clearly mark a point but rather indicated by way of a line was 37. The number of missing cases was 97. The valid response to this question was 742, 134 or 15.3% less than 876. The last item has been included because of the relatively high percentage of missing and incorrectly answered cases compared with other questions. 16.6% of shareholders. 14.6% of shareholder/environmentalists and 14.9% of environmentalists did not answer this question. It is speculation as to the reasons for the relatively large amount of missing cases but it could be due to a lack of understanding of the debate or the simplicity of the continuum posed. Anecdotally, some respondents found that the question over-simplified the debate. Replies from shareholders were normally distributed around the mid-position whilst shareholder/environmentalists' and environmentalists' replies were skewed towards the 'radical green' category. This suggests that no user groups, on average, favour the economic viewpoint; an unexpected result amongst shareholders.

Table 2 Envir	ronm	ent versus Ec	onomic Growth ai	nd User Categorie	es
Environment	Vs.	Shareholder	Shareholders /	Environmentali	Total
Economic		S	Environmentali	sts	
			sts		
Radical Green					
Count		25	62	110	197
Expected		54.0	55.1	87.9	197.0
% within Users		12.6%	30.5%	34.0%	27.1%
Favour Green					
Count		48	54	120	222
Expected		60.9	62.1	99.1	222.0
% within Users		24.1%	26.6%	37.0%	30.6%
Mid-position (ESD)					
Count		77	73	82	232
Expected		63.6	64.9	103.5	232.0
% within Users		38.7%	36.0%	25.3%	32.0%
Favour Economic					
Count		49	14	12	75
Expected		20.6	21.0	33.5	75.0
% within Users		24.6%	6.9%	3.7%	10.3%
Total					
Count		199	203	324	726
Expected		199.0	203.0	324.0	726.0
% within Users		100.0%	100.0%	100.0%	100.0
					%

Table 2 Environment versus Economic Orowin and Oser Categories	Table 2	Environment Versu	s Economic Growth	and User Categories
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The asymptotic significance calculation in Table 3 indicates that there is a significant difference between user groups with regard to the categories shown in Table 2.

Table 3	Chi-Square	Tests for	• Environment	Versus	Economic	Growth	and	User
Categories								

Test	Value	df	Asymp. Sig. (2 sided)
Pearson Chi-Square	93.938	6	.000
Likelihood Ratio	91.266	6	.000
Linear-by-Linear Association	73.237	1	.000
N of Valid Cases	726		

With regard to the 'radical green' response the difference is across all groups and increases from shareholders to shareholder/environmentalists to environmentalists. The 'favour green' position is interesting because the difference is significant between environmentalists and the other user groups. Conversely, the 'favour economic' response indicates a significant difference between shareholders and the other groups. The ESD position is similar between

shareholders and shareholder/environmentalists. To summarize, shareholders and shareholder/environmentalists have similar responses on 'mid-position' and 'favour green' categories whilst shareholder/environmentalists and environmentalists are similar with regard to the 'favour economic' and 'radical green' categories.

Finding

The ecologically sustainable development position on the continuum is supported by the shareholder and shareholder/environmentalist groups.

Corporate Environmental Responsibility (CER)

The question relating to CER was a closed question providing five characteristics; maximizing shareholder wealth; complying with environmental law; enlightened self-interest; reacting to public opinion; and being in advance of law and opinion. The environmental accounting literature has used these terms to characterise what is thought to be the responsibilities of corporations. It was therefore deemed necessary to establish the viewpoint of the user groups and any differences that were evident. More than one attribute could be chosen, therefore, Table 4 indicates the total count and percentage included and excluded for each characteristic. The characteristics described as 'complying with environmental law' and 'being in advance of law and opinion' represent the views of 62.7% and 58.0% respectively of respondents. The characteristic 'complying with environmental law' is spread evenly amongst user categories whilst 'being in advance of law and opinion' is preferred more so by shareholder/environmentalists but predominantly by environmentalists. 'Being in advance of law and opinion' could be considered a more idealistic position that suggests shareholder/environmentalists and environmentalists believe companies should be pro-active concerning environmental issues.

Table 4	Corpo	rate En	vironn	nental Resp	onsibi	lity and	User	· Catego	ories	
Characteristi	Share	holder	Share	holders /	Envir	onmen	Tota	al	Tota	al
cs of CER	S		Envir	onmentali	-		Incl	uded	Exc	luded
			sts		talists	5				
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Maximising	74	8.5	38	4.3	49	5.6	16	18.4	71	81.6
s/holder wealth							1		5	
Complying	180	20.6	151	17.2	218	24.9	54	62.7	32	37.3
with environ.							9		7	
Law										
Enlightened	33	3.8	53	6.0	79	9.0	16	18.8	71	81.2
self interest							5		1	
Reacting to	30	3.4	43	4.9	69	7.9	14	16.2	73	83.8
public							2		4	
opinion										
Being in		9.6	162	18.5	262	29.9	50	58.0	36	42.0
advance of							8		8	
law and										
opinion										

Table 4 Corporate Environmental Responsibility and User Categorie

The data in Table 4 support the view expressed above that the categories 'complying with environmental law' and 'being in advance of law and opinion' are of primary importance having been ranked one or two by all user groups. One difference, as indicated in Table 4 by

the asymptotic significance, being that shareholders differ from the other two groups with regard to the categories mentioned above. Of minor importance is the lack of any significant difference between users with regard to the category 'reacting to public opinion.'

Table 5AssociaCategories	ations	Corp	orate	Environm	ental	Responsi	bility and b
Characteristics of	Share	holder	Share	eholders /	Envir	onmentali	
CER	S		Envii sts	onmentali	sts		
	Ran k	%	Ran k	%	Ran k	%	Asymp. Sig.
Maximising s/holder wealth	3	29.2	5	15.8	5	12.8	.000
Complying with environ. Law	1	71.1	2	62.9	2	56.9	.001
Enlightened self interest	4	13.0	3	22.1	3	20.6	.018
Reacting to public opinion	5	11.9	4	17.9	4	18.0	.084
Being in advance of law and opinion	2	33.2	1	67.5	1	68.4	.000

The interesting result, detailed in Tables 4 and 5, is the ranking by shareholders of the category 'maximizing shareholder wealth'. Company directors' obligations with regard to the maximization of shareholder wealth are enshrined in legislation. Perhaps this result, ranking the characteristic third, indicates a changing emphasis by shareholders where the attitude to maximizing wealth is changing to one that acknowledges the environmental responsibilities of companies.

Finding

Being in advance of law and opinion and complying with environmental law were the preferred options of all user groups.

Corporate Function in Society

The objective of external reporting is to provide information about a company to interested parties that allows for an assessment of company performance. The assessment of performance is predicated on the users' perspective of the role of the corporation in society. If an assessment of corporate performance is required to make a decision regarding the purchase of that company's shares, then it is likely that the potential shareholder will use economic performance indicators. Similarly, if an assessment of corporate performance with regard to compliance with environmental standards is required then the stakeholder would use social performance indicators (environmental performance being a sub-set of social performance). Researchers in the environmental accounting area have commented on the pluralist role or function of companies in society. Rubenstein (1992) discusses corporate function changing from the traditional economic role to a more social orientation and uses environmental issues as an indicator of this change. Considering the above it was thought useful to establish a user perspective of corporate function.

Corporate function was categorised as 'economic,' 'economic and a little social,' 'economic and social,' 'social and a little economic' and 'social.' Respondents were expected to identify only one category. 862 responses were received with 1 shareholder, 4 shareholder/environmentalists and 9 environmentalists representing the 14 missing cases. The question was answered incorrectly, more than one box marked, by 3 shareholders, 3 shareholder/environmentalists and 2 environmentalists. Only 13 respondents believe that a company's function in society is social or social and a little economic. 66.0% of respondents are of the opinion that companies serve a dual function in society. This is an overwhelming result especially when the response of shareholders is considered. The anticipated results, given the skewed reporting and regulatory emphasis towards the economic function by the profession and regulators, may have lead more respondents, especially shareholders, to believe that corporate functionality was predominantly economic.

Corporate Function	Shareholder s	Shareholders / Environmentali	Environmentali sts	Total
	-	sts		
Economic				
Count	31	11	16	58
Expected	17.1	15.6	25.3	58.0
% within Users	12.5%	4.9%	4.4%	6.9%
Economic and a little				
social	89	51	74	214
Count	63.1	57.5	93.4	214.0
Expected	35.9%	22.6%	20.2%	25.4%
% within Users				
Economic and social				
Count	128	164	277	569
Expected	167.8	152.9	248.3	569.0
% within Users	51.6%	72.6%	75.5%	67.7%
Total				
Count	248	226	367	841
Expected	248.0	226.0	367.0	841.0
% within Users	100.0%	100.0%	100.0%	100.0%

Table 6 Corporate Function in Society and Users Categor

As the expected counts were less than five in the 'social and a little economic,' 'social' and 'incorrectly answered' categories they have been excluded from the Chi- Square tests in Table 7. The Chi-square was 45.009, the df 4 and the asymptotic significance was .000. As this is well below an alpha of .05 the degree of difference between the groups as they relate to the categories in Table 5 is significant. An examination of Table 6 indicates that differences exist between shareholders and the other user groups on the three categories.

Test	Value	df	Asymp. Sig. (2 sided)
	45.009	4	.000
Pearson Chi-Square			
Likelihood Ratio	43.311	4	.000
Linear-by-Linear Association	37.304	1	.000
N of Valid Cases	841		

 Table 7
 Chi-Square Tests for Corporate Function in Society and Users Categories

51.6% of shareholders, 72.6% of shareholder/environmentalists and 75.5% environmentalists indicated their belief in the dual functionality of companies. This is an interesting result and represents significant support for the pluralist view of corporate function. Whilst the above results indicate that the majority of users perceive the function of companies to be both economic and social this does not necessarily mean that users believe that companies should report their social performance. However, it is a rather strong indication that this is the case.

Finding

The majority of all users believe the function of companies is economic and social but there is a significant difference between shareholders and the other user groups.

SUMMARY AND CONCLUSION

Attitudes towards the environmental conservation economic growth debate, corporate environmental responsibility and corporate function provide evidence of a changing ideology toward corporate accountability with regard to the environment. The results are quite compelling and suggest a need for further research to be undertaken, not only into the practical issues of change, but also into the role of accountants, accounting and the company in society.

The presentation format or the issue of what is 'financial' information in the context of the above becomes less important from the perspective of presenting information regarding 'accountable relationships'. The accounting profession has some significant choices concerning the role of accounting; an expanded role that encompasses the five accountability rationalities referred to by Diegling et al (1996), or the traditional role of reporting only the economic performance of entities.

Change in our social institutions and artefacts, of which accounting is one, is inevitable and environmental accounting seems to be one of those inevitable changes. The following quotation from Goldberg clearly identifies both the dynamics of accounting and its reactionary nature.

If the professed objectives of business enterprises change or expand towards a more sensitive social responsibility, there is no saying at this stage what effects this will have on accounting practice and procedures; what can be said with certainty, however, is that such effects will be profound; they will most certainly dictate some change in the basis of events for recording, with all the implications of measurement and reporting that this will entail (Goldberg 1965, p359) The role of accounting with regard to corporate social responsibility has been discussed at length but the practicalities of change have been quite elusive over the past forty-seven years since Goldberg made the above remark.

REFERENCES

- Diegling, P., Anderson, J. and Guthrie, J. 1996, 'Accounting for Public Accounts Committees', *Accounting, Auditing & Accountability Journal*, vol. 9, no. 2, pp. 30-49.
- Dierkes, M. and Antal, A. 1985, 'The Usefulness and Use of Social Reporting Information', *Accounting, Organizations and Society*, vol. 10, no. 1, pp. 29-34.
- Goldberg, L.,1965, *An Inquiry into the Nature of Accounting*, American Accounting Association, Iowa.
- Gray, R., Owen, D. and Adams, C. 1996, Accounting and Accountability: Changes and Challenges in Corporate and Social Reporting, Prentice-Hall, London.
- Guthrie, J. and Parker, L. 1990, 'Corporate Social Disclosure Practice: A Comparative International Analysis', *Advances in Public Interest Accounting*, vol. 3, pp. 159-175.
- Rubenstein, D. B. 1992, 'Bridging the Gap Between Green Accounting and Black Ink', *Accounting, Organizations and Society*, vol. 17, no. 5, pp. 501-508.
- Spacek, L. 1969, A Search for Fairness in Financial Reporting to the Public, Arthur Anderson & Co., Chicago.Stanton, P. 1997, 'Users' rights to published accounting information: nature, justification and implications', Accounting, Auditing & Accountability Journal, vol. 10, no. 5, pp. 684-701.
- Sterling, R. 1979, Toward a Science of Accounting, Houston, USA.
- Victoria, Parliament 2000, Public Accounts and Estimates Committee, *Follow-Up Inquiry into Environmental Accounting and Reporting*, Issues Paper No. 4, Melbourne.
- Van der Stede, W. A., Young, S. M. and Chen, C. X. 2005, 'Assessing the quality of evidence in empirical management accounting research: The case of survey studies', *Accounting, Organizations and Society*, vol. 30, Iss. 7-8, pp. 655-684.
- Zikmund, W. G. 1994, Business Research Methods, Int. edn, The Dryden Press, Florida.