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The Role of Management Accountants in Accounting for Sustainable Development

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Abstract: *When the Brundtland Commission offered its famous definition of sustainable development -"to meet the needs of the present without compromising the ability of future generations to meet their own needs", it presented several challenges to policy-makers. One of these is the question: how do we measure progress towards sustainable development? In the wake of the Brundtland Commission's report, sustainable development has been interpreted as a three dimensional concept which combines economic, social, and ecological perspectives. The foundation for this concept is a set of assets that underpin and support the development process. The aim of the paper is to present a conceptual review of the business case for accountants to engage in accounting for sustainable development. The paper presents a framework for sustainable development and uses argument from literature to identify the role of management accountants in accounting for sustainability. To achieve the basic objective of the paper, a qualitative research methodology was employed. Some of the findings are that, although there is an overwhelming support for a movement towards sustainable development, little empirical evidence exists supporting the roles of management accountants in accounting for sustainability. Also, the availability of literature suggesting adequate management accounting practices is limited and very little has been done to provide the steps that ought to be taken to facilitate decision making of organisations. The paper recommends, among others, that management accountants in organisations should provide alignment mechanisms and collaborate with senior management in providing fully integrated reports reflecting sustainable strategies adopted by organisations which fulfill the needs of stakeholders.*

Key words*: role, management accountants, sustainable development*

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I. Introduction

As the social and environmental impacts of human activity have become more evident, the role of sustainable development as an organising principle in a variety of policy contexts and over multiple scales has become central.

In 1987 the concept of sustainable development was introduced for the first time in the Brundtland report. The core objective of sustainable development according to this report is: "…to meet the needs of the present generation without compromising the ability of future generations to meet their own needs" (Brundlandt, 1987). One of the economic interpretations of sustainable development - in order to incorporate sustainable considerations into decision-making, is based on the concept of internalisation of environmental or sustainable related costs. Possibly the most important factor in an effective pursuit of sustainable development is "getting the price right". Unless prices for raw materials and products properly reflect the social costs, and unless prices can be assigned to air, water and land resources that presently serve as cost-free receptacles for the waste products of society, resources will tend to be used inefficiently and environmental pollution will likely increase (Lukeman, 2012).

The academic literature which evaluates corporate sustainability performance provides mixed evidence in support of the argument that companies are getting the message about the importance of being environmentally concerned when conducting their business activities. Researchers who have observed the evolution of environmental reporting have witnessed a vast improvement in the disclosure of environmental policies, environmental performance and future environmental plans by companies during the last two decades (Gray, 2010; Demitrov and Davey, 2011). However, researchers who have analysed the quality of environmental reporting have had some concerns about the genuineness displayed by the companies in being environmentally sensitive. On the other hand, those researchers who have investigated the motives behind the environmental performance of companies and the benefits of those performances have found that companies were motivated to be environmentally friendly not just to obey the regulatory requirements. They have observed many benefits that companies can achieve through improved environmental performance. Such benefits include financial benefits from cost reductions through eco-efficiency and the achievement of competitive advantages by building their images as green companies (Battacharya, Sen & Korschun, 2008; Burnett and Hansen, 2008).

The aim of this article is to present a conceptual review of the business case for accountants to engage in accounting for sustainable development. The article presents a framework for sustainable development and uses arguments from literature to identify the role of management accountants in accounting for sustainability. To achieve the basic objective, a qualitative research methodology was employed.

Accordingly, the article is structured in four sections. Following this introduction is section two which examines the concepts of sustainable development and management accounting. Section three discusses the core objective of the study which is the role of management accountants in accounting for sustainable development while the fourth and final section draws conclusion and offers recommendations.

Sustainable Development and Management Accounting

The issue of sustainable development has grown since its introduction in the Brundtland report in 1987 where sustainability was first defined as the development that meets the needs of the present without comprising the ability of future generations to meet their own needs (Brundtland, 1987). The importance of sustainability is beginning to change the way businesses think and react, with several businesses using voluntary initiatives to integrate social, economic, and ecological issues into their organisation's structure as a means of seeking a form of competitive advantage (Adams & Frost, 2008; Albelda, 2011).

In the opinions of Dimitrov & Davey (2011) sustainable development is expected to meet four objectives at the same time, all over the world. These objectives are:

- social progress which recognises the needs of everyone
- effective protection of the environment
- prudent use of natural resources
- maintenance of high and stable levels of economic growth and employment.

It is the *simultaneous* progression of our economic, social and environmental goals that is essential if development is to be sustainable. Only this way can the damaging trade-offs between them (which have resulted in *un*sustainable development) be identified and avoided.

At present, sustainability enlists the idea that we can generate a form of competitive advantage for organisations by using sustainable development practices in areas that were never economically explored. The present state of the concept of sustainability sees the emergence of various practices, systems, and tools that can be incorporated into organisations. Compliance with such standards shows an organisation's commitment to environmental issues and achieving sustainable development. Other systems include the Eco- Management and Audit Scheme, which was developed by the European Commission on Environment. This scheme requires organisations to publicly report on the organisation's environmental performance, and to renew their presence on an environmental register (Gould, 2011).

The literature which discusses the relationship between economic and environmental performance and eco-efficiency highlights that, in order to improve environmental performance while enjoying economic benefits, companies need to be innovative, environmentally sensitive and be able to integrate environmental information into their business strategies (Ferreira; Mouland & Hendro, 2010). For this purpose, companies need to have a proper information system which integrates all relevant information and provides such information for managerial decision-making. The purpose of management accounting is to provide relevant information for managers in their planning, evaluating, controlling and decision-making processes**.** In that context, management accounting can play a significant role in an organisation by integrating all the core functions and providing relevant information for managerial decision making.

Extensive research literature shows that there is an overwhelming support over the need for sustainability, with proponents pushing for better quality information in regards to sustainable practices (Albelda, 2011, ISO, 2011 & Gould, 2011). Sustainability has three dimensions consisting of economic viability, social responsibility, and environmental responsibility. The three dimensions are presented with opportunity costs and trade-offs between each dimension. As Gould (2011) states, "social and environmental reasonability cannot stand in isolation from economic viability". Therefore, it is crucial that management accountants and managers need to consider sustainability as an integral part of their decision making**)**. Key players in decision making, such as management accountants, should incorporate sustainable development practices into the decision making tools of the twenty first century if we are to expect a viable future.

In the wake of the Brundtland Commission's report, sustainable development has been interpreted as a three dimensional concept which combines economic, social, and ecological perspectives. The foundation for this concept is a set of assets that underpin and support the development process. This, in the findings of Ferreira, Moulang & Hendro (2010) & Albelda (2011) was divided into the following broad categories:

- *Physical capital:* economic assets such as buildings, machines and infrastructure that are the accountant's usual concern.
- *Social capital:* people's skills and abilities as well as the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions.
- *Natural capital:* natural resources, both commercial and non-commercial, and ecological services which provide the requirements for life, including food, water, energy, fibers, waste assimilation, climate stabilization, and other life-support services.

If the per capita value of these assets declines, economists conclude that future social well-being will be less than current well-being - a development path that is not sustainable. While this represents the core of sustainability, this requirement is limited in practice by the difficulty of determining the values of these assets. Monetary values can be assigned for assets traded on a market. But for other natural assets, determining an accurate price can be elusive.

Management accounting as defined by Gloutier, Underdown and Morris (2011 is the process of identifying, measuring, reporting and analyzing information about economic events of organisations. The process should be driven by the informational needs of individuals within the organisation and should guide their operating and investment decisions. The main functions of management accounting: operational control, product and customer costing, management control and strategic control and decision making relate to the different demands for management accounting information. Generally speaking, operational information is primarily used to control and improve operations. Middle management uses the information to plan and take decisions, while at the highest organisational levels management information is used to support strategic decision making.

However, since the publication on *Relevance Cost*, new' management accounting tools and techniques have been developed to support internal decision-making. These management accounting techniques, such as Activity Based Costing and the Balanced Business Score Card, are mainly developed as a reaction to changing information needs driven by a growing competitive environment (Horngren, *et al*, 2011). They explained that Activity Based Costing systems measure more accurately the costs of activities, products, services and customers. Balanced scorecards link current decisions and actions to long-term financial benefits. The Balanced Scorecard is used to evaluate business performance by a set of indicators with a financial, customer, business and organizational learning perspective. It seems that these techniques might be also useful to integrate sustainable considerations into decision-making, due to their growing attention for quality, non-financial aspects, activities and long-term perspective.

Mistry, Low & Sharma (2012 identified some drivers to incorporate sustainable development into the practice of accounting. Two of these drivers related to management accounting are in the area of cost saving and risk management:

Cost Saving

Resource efficiency and cost-saving opportunities can be identified by routinely collecting information on environmental and socially related expenditures and linking them to financial benefits and environmental and social performance (Mistry, Low & Sharma, 2012). For instance, monitoring the use and cost of energy across a company might be the first step towards reducing bills and improving efficiency. Sustainability management accounts can also provide a useful internal reporting tool to track progress and show how environmental and social external costs decline over time with commitment to sustainability. Leading companies are now recognizing that their long term future is inescapably linked to their overall environmental and social performance

Risk management

Mistry, Low & Sharma (2012) opined that there is increasing pressure to manage and report on non-financial risks. Strategies to manage and reduce risk can benefit from the identification of social and environmental risks associated with current financial performance and with particular stakeholder groups (using external costs as indicators of risk). Without adequate and appropriate systems to identify and account for such costs, it is unlikely that organisations will be able to meet the future expectations of their stakeholders. In response to some of the drivers, there has been a move to better understand the intended, and unintended, consequences of deploying financial resources - Full costing, environmental accounting and whole life costing are examples. Full costing is the general name given to attempts to 'get the prices right' and to allow improved, market-based decision making. Whole life costing is a method to identify the costs and benefits of an activity over its lifetime (Gregoriou, 2012; CIMA, 2002).

There is a global move towards integrative reporting incorporating non-financial as well as financial information. Management accountants are ideally placed to provide the alignment mechanisms and collaborate with senior management in producing fully integrated reports, reflecting sustainable strategies adopted by organisations which fulfill the needs of stakeholders.

The role of management accountants in accounting for sustainable development

Management accountants play vital roles in achieving sustainable development. Berry, *et al* (2007) pointed out that management accounting practices are arrangements that institute a framework in which "organisational members negotiate strategies, budget, and set performance targets. Burnett and Hansen (2008) posited that management accountants are facilitators of decision making within organisations. Albelda (2011) calls for management accountants to include issues of sustainability into this facilitation process so that organisations can make decisions surrounding sustainable development**.** Many organisations try to integrate social and environmental practices into their strategic and operational plans. The management accountant is an important facilitator of such integrated activities.

Early roles of management accountants were prescriptive, focusing mainly on potential cost decreases and flows of economic benefits to the organisation. Albelda, (2011) states that earlier roles of management accountants included; designing and maintaining management information systems, providing advice on operational decisions, programs and projects, managing and organising personnel, and developing financial plans. However, with passage of time, the traditional roles of management accountants have evolved. Empirical evidence shows that the relationship between environmental and economic performance has increased, and so has management accountants roles as facilitators of decision making, with new performance measures and analysis tools which integrates environmental issues into their roles (Burnett and Hansen, 2008).

However, in spite of all the literature and empirical evidence suggesting that the role of management accountants has evolved, not everyone is convinced that this is substantially true. For example, Albelda, (2011) and Adams & Frost (2008) pointed out, that although empirical research provides organisations with insights into how to integrate environmental issues of sustainable development into management accounting practices to facilitate decision-making; it has only provided short-term opportunities. Therefore, the role of management accountants in sustainable development has been limited by short-term empirical research.

CIMA (2011) also suggested that management accountants must now take a more active role in sustainable development. The CIMA report on 'Sustainability and the role of the management accountant focuses on the role of management accountants within organisations and the active part they take in decision-making and strategy formulation. As the report suggested, management accountants play an active role in strategy formulation around sustainability. Furthermore, empirical evidence from CIMA's report suggests that 9% of management accountants within organisations currently play an active role in influencing the organisations sustainability strategy through the management accountants' roles as facilitators of decision-making.

While present opinions calls for management accountants to become active decision facilitators within organisations; research shows that scanty attention has been paid on sustainable management accounting practices and the engagement of management accountants in the organisations (Berry et al, 2009). It seems that the problem may stem not from management accountants as facilitators of sustainability practices, and roles, but instead from limited empirical research on what the roles of management accountants should be in sustainable development. Despite the shortcomings of supporting empirical evidence, and literature; several tools have been developed to aid management accountants as facilitators of decision making surrounding sustainable development in organisations.

Albeda (2011) pointed out that a key tool supporting the facilitation of decision-making is through the use and implementation of an Environmental Management Accounting System. Management accounting tools to help organisations become sustainability compliant include the use of Balanced Scorecard, Environmental Management Accounting, and the Triple Bottom Line reporting **(**IFAC, 2011 & Horngren, *et al*., 2011).

Gray (2010) & Mistry, Low and Sharma (2012) described the following areas where management accountants play vital. roles in sustainable development:

- Lifecycle Assessment: a holistic approach to identifying the environmental consequences of a product or service through its entire lifecycle and identifying opportunities for achieving environmental improvements;
- Lifecycle Cost Assessment: a systematic process for evaluating the lifecycle costs of a product or service by identifying environmental consequences and assigning measures of monetary value to those consequences;
- Environmental Impact Assessment: a systematic process for identifying all the environmental consequences of an organisation, site or project's activities, and;
- Environmental Externalities Costing: the generation, analysis and use of environmental damage (and benefits) created by an organisation, site or project's activity.

Within this framework, environmental-related management accounting is in practice primarily concerned with the information needed to steer the internal organization and this go a long way in ensuring the sustainable development of the organization.

II. Conclusion and Recommendations

Although there is an overwhelming support for a movement towards sustainable development, little empirical evidence exists supporting the roles of management accountants in accounting for sustainability. The availability of literature suggesting adequate management accounting practices is also limited and very little has been done to provide the steps that ought to be taken to facilitate decision making of organisations' sustainability issues.

There is an increasing potential for environmental-related management accounting to make a substantial contribution to both business success and sustainable development. In this paper, management accounting for sustainable development is interpreted as management accounting used to support decision-making that incorporates the economic, environmental, institutional and social component.

Our findings were that management accountants play an active role in strategy formulation around sustainability. Many organisations try to integrate social and environmental practices into their strategic and operational plans. The management accountant is an important facilitator of such integrated activities. Early roles of management accountants were prescriptive, focusing mainly on potential cost decreases and flows of economic benefits to the organisation. However, with passage of time, the traditional roles of management accountants have evolved. The relationship between environmental and economic performance has increased, and so has management accountants' roles as facilitators of decision making, with new performance measures and analysis tools which integrates environmental issues into their roles. Also, management accountants play vital roles in accounting for sustainable development in the areas of Lifecycle Assessment, Lifecycle Cost Assessment, Environmental Impact assessment, and Environmental Externalities Costing.

It is recommended that management accountants in organisations should provide alignment mechanisms and collaborate with senior management in providing fully integrated reports reflecting sustainable strategies adopted by organisations which is in line with the needs of stakeholders. Also, there is need for more empirical studies on the role of management accountants in accounting for sustainable development with particular focus on sub-Sahara African countries.

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