CORPORATE GOVERNANCE IN SOUTH AFRICA

SECTION 3

INVESTIGATING THE IMPACT OF CARBON TAX ON SOCIALLY RESPONSIBLE CORPORATE GOVERNANCE: THE CASE OF SOUTH AFRICAN MOTOR VEHICLE MANUFACTURERS

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Abstract

Socially responsible corporate governance is an essential aspect of the contemporary corporate environment, and then especially in ensuring continuous sustainable development within a South African context. As such, it also encompasses broad environmentally focused aspects. The motor vehicle manufacturing industry in South Africa was among the first to be faced with the implementation of carbon taxes. This paper explores the policy decision to implement the carbon tax within the context of socially responsible governance in the motor vehicle manufacturing industry. The research methodology applied incorporates both review of supporting literature and an exploratory empirical case study. The research suggests that the industry is cognizant of the importance of environmental damage costs and their responsibility therein, while also indicating that corporate social investment in this industry was non-responsive to the implementation to carbon tax. The results also suggest that the current carbon tax rate may be adequately priced and is an effective instrument in lowering greenhouse gas emissions.

Keywords: Carbon Tax, Corporate Social Investment, Corporate Social Responsibility, Governance, Sustainable Development, Sustainability Reporting

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1 Introduction

1.1 Background

When developing corporate strategies, a sound understanding of the ever-evolving business environment is imperative. So much so, that Buys (2012a) is of the opinion that an organization that fails to account for a dynamic business environment would lose its market relevance, its customers and ultimately the support of its stakeholders. In order to achieve a corporate goal of long-term sustainability, an organization should therefore ensure cognizance of all stakeholders' expectations by harmonizing economic prosperity, environmental quality and social wellbeing. The organization should therefore not only be financially secure, but also curtail undesirable environmental impacts and act in conformity with society's expectations.

In terms of undesirable environmental impacts, the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) confirmed that the average global temperature has increased by 0.741°C during the period 1906 to 2005, causing sea levels to rise due to melting snow and ice (Li et al., 2012). Adding to the phenomenon, greenhouse gas emissions are also expected to rise in the next three decades, potentially contributing to

further rising sea levels and additional negative impacts on coastal ecosystems (Hardisty, 2009). In a South African study by Goldblatt and Davies (2002), it was found that the level of carbon emissions per unit of economic output was nearly three times the average set by the Organisation for Economic Co-operation and Development (OECD). Therefore, if governmental institutions around the world (including South Africa) were to mitigate the negative impacts of climate change, they have to consider regulatory policies and strategies to reduce carbon (or greenhouse gas) emissions.

A popular policy instrument to lower greenhouse gas emissions is the implementation of cap-and-trade schemes that aim to reduce emissions by limiting the allowable quantity of carbon dioxide to be emitted and then allocating tradable emission permits. An alternative policy instrument to address global warming is that of carbon taxation, which, as an instrument of environmental cost internalization, effectively amounts to an excise tax on the producers of raw fossil fuel-related products based on the relative carbon content of such fuels. South Africa's National Treasury's decision to implement a carbon tax on motor vehicles may therefore be considered a significant regulatory development in addressing the problem of climate change in South Africa.

1.2 Social cost of carbon

Socially responsible corporate governance is concerned with how an organization manages its relationships in key spheres of influence, such as the workplace, marketplace, community and public policy realms (Young, 2010). In quantifying the environmental impact of pollutants such as greenhouse gas emissions, the concept of the social cost of carbon (SCC) has been formulated. According to Hardisty (2009), this is typically taken as the amount of monetary damage caused by each additional ton of greenhouse gas emitted into the atmosphere and specifically relates to the probable impacts to the global economy caused by the effects of global warming.

In terms of economic theory, in conditions of a perfect market, efforts to reduce greenhouse gas emissions should therefore be feasible as long as the incremental cost of reducing the emissions is lower than the increase in the SCC. In applying this general economic principle, one may argue that for carbon taxes to be feasible, the SCC should be equal to, or lower than, the revenues generated therefrom. In evaluating corporate environmental and social impacts, there are, however, other aspects than only the direct SCC that have to be considered. Indirectly, many corporations (including the polluting ones) often re-invest substantial resources and profits into social upliftment initiatives.

1.3 Corporate social investment

The broader concept of corporate responsibility is concerned with treating all stakeholders in an ethical and socially responsible manner, where these terms translate into treating such stakeholders in a manner that is deemed to be acceptable in civilized societies (Scott, 2007). Within the South African governance context, however, corporations have often reacted more positively to the concept of social investment as opposed to that of social responsibility. The corporate social investment (CSI) concept suggests that a business-oriented outcome is often preferred over doing something purely because it is ethical (Skinner & Mersham, 2008). Social investment projects would therefore utilize corporate resources for the benefit and upliftment of various communities within the broader society, which, as such, encompasses projects that are external to the ordinary (profit-driven) business activities.

Seen against the background of socially responsible corporate governance, an important question to consider is whether the additional financial burden inherent to carbon taxes may impact the corporate CSI expenditure, since carbon tax liabilities may be construed as bearing part of their corporate responsibility.

1.4 Corporate governance and responsibility

Closely linked to the implementation of policy instruments such as carbon taxes is the concept of socially responsible corporate governance. Holistically, corporate governance is all about the procedures, the systems and the controls regulating the organization's operations. As such, there are both internal drivers and external drivers impacting on corporate governance (Young, 2010). Perhaps more pertinent to this article is the external drivers, which, inter alia, include the laws and regulations that aim to ensure a competitive and socially responsible environment. According to Buys (2012b), a key aim of corporate governance reform is to ensure that corporate operations are conducted in a manner that is conducive to both corporate efficiency and responsibility and that such behavior emphasizes the role of top management, including the board of directors. Therefore, inherent in the concept of corporate governance, is the germane imperative of ethical governance, which translates into broad-based consideration of all stakeholders.

Even though an organization's primary objective should be to strive for long-term sustainability, and as such environmental and social consciousness, profitability remains a crucial sustainability component. Socially responsible corporate governance should therefore be concerned about sustainable development for many reasons. The concept of sustainable development may be demarcated as the

realization of human need with a mindset of protecting the natural environment. Socially responsible corporate governance, as such, therefore comprises multiple elements categorized into three dimensions, namely the environmental, economic and social (or the so-called 'triple bottom line') dimensions.

2 Research problem and method

Following from the above, this paper explores the potential impact of carbon tax on socially responsible corporate governance in South Africa, and then especially from the motor vehicle manufacturing industry's perspective. In shedding some light hereon, both a deductive interpretation of various literary sources and an exploratory empirical survey of the South African motor vehicle manufacturing industry were conducted. This research study can therefore be classified as a descriptive and applied case study following a multi-paradigm approach that can be categorized into both the interpretive and functionalist paradigms when considering Burrell and Morgan's 'Four Paradigms of Social Theory' framework (1979). In meeting the set research objectives, a literary research component was supplemented with an exploratory empirically-based case study.

In terms the literary research component, the suitability of carbon tax within a South African governance context is evaluated. This was done by considering the basic differences between, and the effectiveness of, *cap-and-trade* schemes and *carbon tax* policies, which is then followed by sketching the background of the emergence and development of CSR and CSI in South Africa. In terms of the supportive empirical research component, the CSI initiatives and policy perceptions were investigated. This included the quantification of the SCC in respect of motor vehicle emissions in South Africa with an investigation into the perceptions regarding the adequacy of the South African carbon (excise) tax price and related policies. In conducting this survey, a measuring instrument taking on a four-point Likert-type format, has been developed and tested. Only questions and statements relevant to this specific article's objective have been extracted from this measuring instrument and are reported upon. The overall research population size is effectively the seven multinational motor vehicle manufacturers operating in South Africa, which were all approached and with three finally being willing to participate in this exploratory study. The empirical study phase resulted in a response rate of 43% and therefore consisted of three case studies in the motor vehicle manufacturing industry identified by utilizing unrestricted non-probability sampling. A researcher was available throughout the empirical data collection process to provide guidance to all participants as required.

3 Suitability of carbon tax in South African governance

3.1 Difference and effectiveness considerations

To start off with, the aim of this study was to consider whether carbon tax was an effective climate change mechanism in reducing greenhouse gas emissions within a South African governance context. As alluded to earlier, governments considering policy instruments to lower greenhouse gas emissions typically have two basic approaches available, namely i) a cap-and-trade scheme that reduces emissions by limiting the quantity of carbon dioxide that can be emitted and then allocating tradable emission permits, or ii) introducing a carbon tax scheme that effectively raises the price of fossil fuels based on their carbon content.

Within a cap-and-trade scheme, a regulator typically issues a *permit to pollute* to major industries, with a polluting organization then being in the position to trade such permits with another organization that might be able to make equivalent environmentally friendly changes more cost effectively (Gilbertson & Reyes, 2009). The underlying rationale is that the available supply of permits is slowly reduced, so that the permit trading market retains its value, while at the same time forcing a decrease in the overall level of greenhouse gas emissions. In terms of the effectiveness of cap-and-trade schemes to lower greenhouse gases, a sample study of 2 101 European organizations subject to the European Union's Environmental Trading Scheme (EU ETS) revealed that it led to reductions in greenhouse gas emissions. Phase I of the EU ETS (from 2005 to 2007) has seen an overall average reduction of approximately 2% (Abrell *et al*., 2011), while a review of Phase II results (from 2008 to 2009) revealed an average reduction of more than 7% (Pillay & Buys, 2013a). On the other hand, in terms of carbon tax effectiveness, a study in Nepal using an energy system model indicated that the introduction of carbon tax could result in an estimated reduction of 12% in greenhouse gas emissions under certain conditions (Shakya *et al*., 2012). Furthermore, in terms of the actual effectiveness of carbon tax policies, studies conducted in Norway, one of the first countries to introduce such policies in 1991, revealed that carbon emissions increased by 19% from 1990 to 1999 as opposed to a GDP growth of 35% in the same period (Bruvoll & Larson, 2004), which points to an overall real effective reduction in average emission per unit GDP of approximately 12%. Therefore, international research has shown that both of these instruments show potential effectiveness in reducing greenhouse gas emissions.

Notwithstanding the successes of a cap-and-trade approach as per the EU ETS, price uncertainty is a challenge within the South African context, as there is

a high concentration of greenhouse gas emissions in the energy sector, creating a significant design challenge to a (balanced) South African emissions trading scheme (Goldblatt, 2010). There will also be a greater need for additional related administrative capacities if South Africa were to implement such a scheme. Furthermore, the (income) tax implications of emission trading schemes can be complex and require additional resources both in terms of drafting tax legislation by National Treasury as well as monitoring tax compliance by the South African Revenue Service. It was therefore found that the National Treasury's reasons not to implement cap-and-trade schemes in South Africa were primarily due to:

- credibility issues of emission caps, the allocation of permits and the need for a competitive market to facilitate trading;
- inappropriate permit prices given South Africa's oligopolistic market structure price uncertainty;
- the need for new financial regulations and administrative capacity;
- tax implications; and
- the non-transparency of distributional incidence.

Pillay and Buys (2013a), however, are of the opinion that the challenge of distributional incidence may be overcome by the South African government, provided the proceeds of emissions trading are invested in *renewable* energy technologies and suppliers. The conclusion is that there are more potential challenges facing the implementation of cap-and-trade schemes than for a carbon tax policy. Given the challenges of administrative capacity, price uncertainty and complex tax implications, the National Treasury's decision may be seen as a prudent option in terms of carbon emissions management from a South African economic and environmental perspective.

3.2 South African perspectives on CSR

In addressing this article's objective of evaluating the potential impact of carbon tax implementation on the CSI spending by motor vehicle manufacturers in South Africa, the emergence of CSI in South Africa has to be considered. This emergence lies in performance-based CSR measures, which have been adopted in many developing countries, with specific accountability ratings (Ndlovu, 2011). The implementation of the Black Economic Empowerment Act of 2003 in South Africa has resulted in increased pressure on companies to play a greater role in generating social development goals (Ndlovu, 2011) and also allowed for the formalization of CSR programs. The overall concept of corporate responsibility is also further encouraged in South Africa by the fact that the South African Constitution (drafted in 1994) together with other reforms to existing legislature have allowed for social and environmental topics to be focused on by private corporations. It should be noted, however, that CSI is specific to South Africa and that it is (arguably) driven primarily by legislation and industry charters (Hinson & Ndlovu, 2011). However, Hinson and Ndlovu (2011) also note that it promises to present a new way of addressing developmental problems in South Africa.

4 CSI initiatives and policy perceptions

4.1 Quantification of SCC and CSI

A further consideration is whether the current carbon tax rate is appropriately priced for the associated welfare and damage cost of carbon emissions emitted by motor vehicles in South Africa. This will require a consideration from two perspectives as highlighted below.

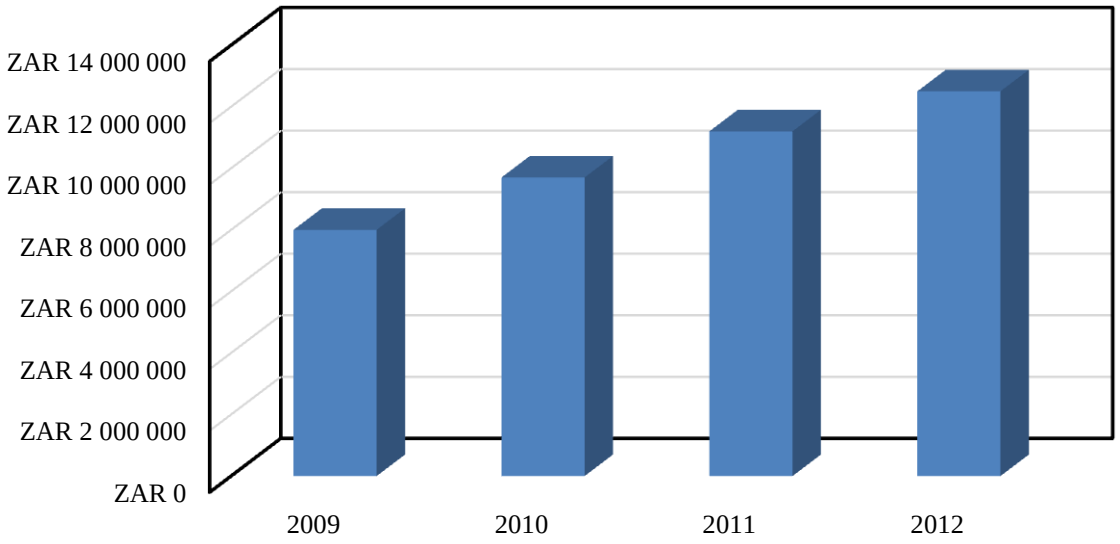
Firstly, a consideration of whether the welfare cost associated with carbon emissions as expressed in the SCC is adequately incorporated in the carbon tax price. This is achieved by comparing the damage cost of carbon emissions attributable to motor vehicles manufactured in 2011 (the most recent complete year for purposes of this analysis) to the actual revenue received from carbon tax by the South African Revenue Service (SARS) in the same period. The SCC is often determined by economists using integrated assessment models (IAMs), using information from various fields of study. In South Africa, recent studies have incorporated the use of computer-generated equilibrium (CGEs) models to determine the economy-wide impacts of a carbon tax. There have been three notable studies that have attempted to quantify the local carbon prices. These include the Devarajan study in 2009, which suggested a price of ZAR96.25 per ton; the Winkler and Marquaard study in 2009, which suggested a price of ZAR200.00 per ton; and the so-called 'long-term mitigation study' in 2008, which suggested a price of ZAR100.00 per ton (National Treasury, 2012). Based hereupon, an average South African-focused carbon tax price of R132 per ton of carbon is suggested. Based on this cost, research conducted by Pillay and Buys (2013b) indicated that carbon emissions in respect of 2011 amounted to an estimated 4.2 million tons with the associated SCC of ZAR554 million. According to the National Treasury (2012), the corresponding carbon taxes levied amounted to an approximate figure of ZAR1.556 million. Therefore, on an average estimated level, the carbon tax was found to be exceeding the estimate of the SCC and the carbon tax could be considered as adequately priced.

Secondly, in terms of the monetary value of CSI, the expenditure amounts from 2009 to 2012 were requested from the respondents, and are presented below.

The overall industry trend seems to be increasing, starting with just over ZAR8 million reported in 2009, just under ZAR9 million in 2010,

approaching ZAR12 million in 2011 and more than ZAR13 million in 2012. When considering the trend in the average CSI as reported by the respondents, it would seem as if the implementation of carbon tax did not adversely affect CSI expenditure (Please note that only the total CSI amounts as opposed to per individual respondent are provided for confidentiality purposes). Furthermore, the types of CSI projects typically receiving funding from the motor vehicle manufacturing industry include social upliftment initiatives such as education-related funding in the form of the Nelson Mandela Ndonga School and Clinic Project and healthcare funding for multiple HIV/AIDS and child healthcare centers. In light of the above information, it is evident that South African motor vehicle manufacturers seem to be committed to their CSI initiatives.

Figure 1. Total (average) CSI expenditure



4.2 The industry's policy perceptions

In gauging the perceptions of the respondents regarding the adequacy of the carbon tax price, their awareness of the concept of the SCC, as well as the potential impact of carbon tax on their CSI policies and expenditure, the following extracted questions from the questionnaire provide some indication:

- *Question 1*: The respondents were asked whether they are aware of, and understand the concept of the social cost of carbon.
- *Question 2:* The respondents were asked whether they consider the carbon tax price and therefore the related tax revenue generated therefrom to adequately compensate for the damage caused by carbon emissions from motor vehicles.
- *Question 3:* The respondents were asked whether they consider carbon tax as the best regulatory policy instrument in addressing South Africa's climate change concerns.
- *Question 4*: The respondents were asked whether the implementation of carbon tax has affected their company's CSI policies and strategies.
- *Question 5:* The respondents were asked whether an adequately priced carbon tax may reduce corporate obligations to society and the environment in terms of CSI.

Table 1 below presents a brief analysis of the descriptive statistics associated with the responses received from the respondents in respect of questions 1 through 5 noted above:

Table 1. Analysis of descriptive statistics

Question no	Min statistic	Max statistic	Mean statistic	Std dev statistic
1	3	4	3.67	0.58
2	1	4	2.33	1.53
3	1	4	2.33	1.53
4	4	1	2.33	1.53
5	4	1	2.33	1.53

Based on the responses received, the following conclusions may be made:

i) In terms of awareness and understanding of the concept of the SCC (question 1), the majority of the respondents seem to be aware thereof and understand it within the context of their industry.

ii) Although there was a slight affirmative indication that they consider the carbon tax price to adequately compensate for the damage caused by carbon emissions from motor vehicles (question 2), no definitive conclusion can be made from the responses.

iii) It would also seem that even though respondents may slightly agree, subject to exception, that carbon tax may be the best policy measure in addressing South Africa's climate change concerns or not (question 3), no definitive conclusion can be made from the sample.

iv) In terms of CSI policies and obligations (question 4), subject to exception, the responses lean slightly towards an agreement that the implementation of carbon tax has not affected their CSI policies and strategies.

v) Similarly, in terms of corporate CSI obligations and the adequacy of a carbon tax price (question 5), the results indicate a slight leaning towards an understanding that adequate carbon tax price would not reduce their corporate CSI obligations and intentions.

5 Concluding discussion

According to Hamel and Välikangas (2003), organizational sustainability and resilience should start with an ambition of zero trauma, where a continuously morphing corporate strategy is a key goal. Within a context of corporate sustainability and governance, ignoring environmental and social matters may be financially advantageous, but it could be a barrier to long-term sustainability at both macro- and micro-levels.

In respect of whether the carbon excise tax mechanism is considered the best climate change instrument to ensure greenhouse gas reductions in South Africa, the study confirms that carbon tax has a proven track record in reducing greenhouse gases. From a literary perspective, the unique challenges facing South Africa in implementing a cap-and-trade system validated the National Treasury's decision to select a carbon tax over the cap-and-trade system. This is also somewhat validated by the respondents to the study. Furthermore, it would seem as if the carbon excise tax rate as implemented, is appropriately priced for the associated welfare and damage cost of carbon emissions emitted from motor vehicles in South Africa. The literature study confirms that the revenue received by SARS in respect of carbon tax exceeds the SCC of carbon, and the carbon excise tax price in South Africa should adequately cover the SCC and passes the cost-benefit reasonability test in terms of policy-making. The empirical results also suggest that the motor vehicle manufacturers are somewhat in agreement with the carbon tax price in this regard. Finally, the empirical case study results confirm that the majority of respondents do not agree, subject to exception, that corporate obligations to environment and society under CSI are reduced as a result of the implementation of carbon tax. This is further supported by a quantitative analysis of CSI expenditure incurred, which confirm that CSI policy is non-responsive to the implementation of carbon tax and has not resulted in any decrease in CSI expenditure by motor vehicle manufacturers in South Africa.

The conclusion may therefore put forward that, in terms of socially responsible corporate governance within the context of this article, the motor vehicle manufacturing industry is a key contributor to social upliftment initiatives in South Africa, and that the advent of carbon tax in their industry would not deter them from their social responsibility initiatives and investments. However, although the literature would suggest that the welfare costs of carbon emissions have been adequately included in the carbon tax price, the view of respondents may not be so definite. Notwithstanding, as an industry, they grasp the issues at hand and are keen on being contributing role-players.

6 Limitations and future research

In reading the above article, the reader must take cognizance of the following: Given the limited number of motor vehicle manufacturers in South Africa, the sample size in the study is a possible limitation. The reader should therefore remain vigilant in interpreting research conclusions within the context of the study and not generalize the research conclusions to the motor vehicle industry *per se*. A further possible limitation is that carbon tax will not affect motor vehicle manufacturers that are manufacturing highly fuel efficient vehicles. The responses to the research questionnaires may therefore depend to some extent on the level of fuel efficiency inherent in the motor vehicles manufactured by South African motor vehicle manufacturers. There may be alternative drivers of CSI expenditure, such as macro-economic growth and the motor vehicle industry positioning, which have not been factored within the scope of the study.

With regard to future research opportunities, the third phase of the EU ETS, which commenced in 2012 and is expected to end in 2020, still has to be evaluated for greenhouse gas reduction effectiveness. This will be considered critical in light of the ability of many multi-national companies to shift production processes to other countries and to allow for carbon leakage to occur. A further research opportunity lies in the fact that national carbon tax is to be implemented in South Africa by the National Treasury in 2016. A revised SCC in South Africa for 2016 can be

estimated and the pricing of the tax could be examined from an economic sustainability perspective. The impact of the new carbon tax on CSI activities and expenditure could also be reviewed to determine the overall impact on social sustainability in South Africa.

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