Governance of corporate social responsibility and return on assets in the South African mining firms

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ABSTRACT

Governance of corporate social responsibility (CSR) remains a permanent subject in the sustainability development debates despite its long history. This article examines issues of governance by establishing the relationship between CSR and return on assets (ROA) of Johannesburg Security Exchange (JSE) listed mining firms. The purpose of focusing on mining firms is necessitated by the need to address socio-economic ills which are phenomenal within the South Africa's mining communities. Hence, the objective of this article is to investigate the interactions in the CSR, based on employees and black suppliers. The secondary data on CSR and ROA for the years 2010–2014 were collected from the integrated reports of purposively sampled 10 mining firms listed on JSE (SRI) Index. The case study research strategy was adopted from which data was collected and gathered using content analysis. The CSR aggregates such as Broad Based Black Economic Empowerment (BBBEE) procurement and skill and training expenditure are used as independent variables while ROA is used as a dependent variable. The multiple regression statistics are used to test the relationship, which is the manifestation of the underlying governance. The findings reveal that CSR has a negative impact on ROA. However, after the incorporation of the number of employees as a control variable, the results show that there is a positive relationship between CSR and ROA. In this way, the study confirms that tenets of good corporate governance are satisfied in the relationship

of CSR and ROA in the selected mining firms, notwithstanding the continued poverty among mining communities.

INTRODUCTION

The socio-economic problems in South Africa seem to be a permanent feature due to the nasty history which is coupled with untold hardships. Particularly in the South African mining communities, socio-economic ill such as; poverty, diseases, uncontrollable migration, and family breakdowns are phenomenal (Saksenberg 2013). The effects of economic imbalances have continued to widen the gap between rich and poor in addition to the extractive industry's negative economic, social and environmental impacts. This has resulted in CSR becoming an important theme among mining firms in South Africa (Hamann & Kapelus 2004). The socio-economic problems are no longer a secret in South Africa. This is evidenced by the Marikana massacre which Saksenberg (2013) claims that it was triggered by the growing dissatisfaction of the mine workers and communities with the lack of development in several key areas that (CSR) mining policies are meant to address. The stakeholders' utterances regarding lack of socio-economic concerns by the mining sector will, with doubt, lead to implosion and eventually explosion if necessary or corrective actions are not taken in time.

The studies done in South Africa failed to examine the relationship between CSR and ROA, particularly in the South African mining industry. Hence, it is unclear what impact CSR has on ROA. Incidentally, insufficient evidence exists regarding CSR practices such as social support by these mining companies on expenditure on Broad based Black Economic Empowerment procurement and skills and training programmes. This is clear from past studies that had no influence on a firm's financial performance as represented by Return on Asset (ROA) in South Africa. It is the objective of this article to establish the relationship between some CSR dimension (expenditure on BBBEE suppliers and skill and training) and ROA. The testing of the relationship is two folds. *Firstly,* ROA is regressed on two independent variable followed *secondly* by an analysis with the inclusion of the number of employees as a control variable. The study builds upon previous works regarding this topic. In addition to the introduction and conclusion, this article is structured in four sections: next, it provides background; secondly, it discusses the conceptual frameworks and hypotheses; thirdly, it presents data and methodologies; and finally, it analyses the results, outlining the contributions to knowledge and then provides conclusion.

BACKGROUND

Due to stakeholders' scrutiny, the general consensus is that mining entities have to contribute towards socio-economic development in the areas they source their labour (Mabuza, Msezana & Kwata 2010). In this regard, Bussaca (2013) posits that CSR can help to get rid of South Africa's long history of class and race conflicts. Furthermore, Mabuza *et al*. (2010) stresses that a mine should work towards improvement of the socio-economic development of the local communities. The mining stakeholders are taking it upon themselves to address the deteriorating situation in the mining communities, with government's regulatory bodies working on legislating revenue sharing codes in the mining sector (Baseda & Martin 2013). The legislative frameworks have been put in place to motivate firms to actively participate in CSR partnerships (Mabuza *et al.* 2010). Hence, more mining firms are now complying with the requirements of JSE (SRI) Index as a sign of accepting responsibility. As at November 2014, fifteen out of sixty mining firms complied with JSR SRI Index (JSE SRI Index 2004). The remarkable CSR progress has been made particularly in the mining sector.

The harsh reality is that radicalisation of socio-economic transformation is slowly gaining momentum, with a political party like Economic Freedom Fighters (EFF) has started pointing fingers at the ruling part for being *unprogressive.* However, the main concern in the debate about CSR is whether it pays off to be socially responsible or not. Several studies claim that mining companies are not doing enough to address the community concerns (Busacca 2013; Diale 2014). As a result, the CSR gained some significance as a discourse and business practice in a globalised economy (Diale 2014). In South Africa, CSR is not a new topic; many studies were done particularly concerning the contribution of CSR towards sustainable development, disclosure and corporate governance by researchers (Hamann 2004; Mabuza *et al.* 2010; Diale 2014; Klue 2014). Despite vexing corporate social and financial performance relationships (Fu & Jia 2012), several studies found dominance of positive correlation (Mishra & Suar 2010; Ahamed, Almsafir & Al-Smadi 2014; Anlesinya, Ahinsah, Bawa, Appoh & Bukari 2014; Ofori, Nyuur & S-Darko 2014; Piatti 2014). Contrary to the above findings, other studies have found that there is a negative relationship between CSR and a firm's performance such as Brammer, Brooks & Pavelin (2006); Beccheti, Ciciretti & Hasan (2012); and Iqbal, Ahmad, Bashler & Nadeem (2012). Some studies found no link between CSR and firm performance (Fu & Jia 2012; Inoue, Kent and Lee 2011).

CONCEPTUAL FRAMEWORKS, HYPOTHESES AND HISTORY OF CORPORATE SOCIAL RESPONSIBILITY

The proponents of shared value Porter & Kramer (2006) argue that firms cannot grow faster unless societies get a share of the profit. The central premise behind creating shared value is competitive advantage and the health of the surrounding communities, leading to the connection between societal and economic progress. Share value creates an environment conducive to business to earn the respect of the society (Porter & Kramer 2011). The shared value offers corporations the opportunity to utilise their skills, resources and management capability to lead social progress in ways that even the best-intentioned governmental and social sector organisations can hardly match. In the process, businesses can earn the respect of society again (Porter & Kramer 2011). Hence, firms are bound to strategically implement policies which are not self-centred.

The *legitimacy theory* is twofold implying that finding lasting peace with the communities can lead to sustainable relations which will result in everlasting benefits. Social performance is needed to attain business legitimacy (Van Beurden & Gossling 2008). The firms must build favourable relations with all stakeholders by marinating legitimacy and effectively attracting resources (Barnett & Salomon 2006). As responsible corporate citizens within the societies in which they operate, companies have both legal rights and a moral obligation to respect the socio-economic environment. Focusing on stakeholder theory is regarded as a basis for social contract (Porter & Kramer 2006), rewarding the firms for some good acts (Barnets 2011), satisfying stakeholders' expectations (Freeman 1984), and creating value for the firm through integration of business and societal considerations (Perrini, Russo & Tencati 2009). Stakeholder's theory advocates the formation of partnership with relevant stakeholders (Mabuza *et al*. 2010).

Understanding Corporate Social Responsibility

The debate surrounding the definition of corporate social responsibility (CSR) in the academic literature overlaps with the concepts such as corporate citizenship, sustainable business and corporate social responsibility (Mabuza *et al*. 2010). This continues to create confusion and lead to an indefinite debate (Piedade & Thomas 2006). In an attempt to come up with a sound definition of CSR, more terms have been created e.g. corporate citizenship and corporate social responsiveness (Matten & Crane 2005). The word *responsibility* has been avoided since it forces the organisation to be accountable and have obligation as Piedade & Thomas (2006) claim in their study. In view of this point, Diale (2014) claims that CSR has no globally accepted definition while Brammer & Millington (2008) maintains that CSR's meaning remains controversial. However, Piedade & Thomas (2006) argue that addition of more issues to the CSR sphere is making it difficult for corporates to know what actions to take, but most of the extant literature conceptualises CSR as any entity's effort beyond their economic interest (Nam & Jun 2011). Understanding the concept of CSR continues to be an interesting topic with one scholar, Nam & Jun (2011) by reiterating that the meaning of CSR is better understood when its definition is geographically bound. In view of this point, Mabuza *et al.* (2010) cite that there is a wide gap in terms of how Westerners and Africans view CSR. Over and above, the World Business Council for Sustainable Development (WBCSD) defines CSR as continued commitment by business to behave ethically and contribute to economic development while improving the quality of life of both the workforce and community at large (WBCSD 2003). Some of the scholars view CSR's meaning based on its agenda in different regions. Dartey-Baah & Amponsah-Tawiah (2011) distinguish the approach to CSR in Africa from that in the Western countries where the former CSR consists of infrastructure and economic development leading to job creation and so on. In the latter they use Carrol's (1991) pyramid of CSR that consists of four social responsibilities; economic, legal, ethical and philanthropic, with decreasing importance in order. In Nigeria, the CSR is framed by aspects like communalism, ethnic religious beliefs, and charitable traditions (Amaeshi, Adi, Ogbechie & Amao 2006). In South Africa, the context and definition of CSR has been significantly influenced by the legacy of a colonial history (Hanks, Hamann & Sayers 2007). On the same note, Mabuza *et al*. 2010 point that legislation has failed to explain what CSR is in South Africa. However, the only CSR guideline regarding how firms should contribute towards socio-economic development are documented.

History of Corporate Social Responsibility in the South African Mining Industry

The South African history regarding CSR started concurrently with the rest of the world.

The emergence of CSR did not wait for apartheid to end because of the pressure which was emanating from different stakeholders. Fourie (2005) points out that banking and mining were the first entities to be involved in CSR in the early 1970s. The first CSR organisation by the name *Urban Foundation* was born in 1976 with the aim of promoting development in the black townships (Hanks *et al.* 2007). It was followed by Anglo-American De Beer's Chairman's Fund, Glencor Development Fund, Gold Field Foundation and Liberty Foundation which were as a result of the Sullivan Principle (Fourie 2005). Just a year before 1992 Rio Earth summit, the Industrial Environmental Forum of South Africa was formed. However, the summit founded a new organisation called *WBCSD*, and the CSR landscape changed in a short period of time resulting in the formation of many CSR groupings. The Pre- independence period was characterised by business which operated as an island, with no development in the local community in which they found themselves (Mabuza *et al.* 2010). However, the real formalised social responsibility issues only started to emerge after 1994 (Seeletse & Ladzani 2012). The mining industry has made progress towards achieving sustainable development, employment creation and poverty eradication in the post-independence era (Mabuza *et al.* 2010).

The new South Africa state post 1994 emphasised the need to implement appropriate CSR policies which would lead to accountability and transparency. The pressures for reporting and implementation of new mining legislation have brought many changes (Mabuza *et al.* 2010) which led to a well-co-ordinated CSR adoption. In response to the public calls on attitude change in the mining sector, the South African government put in place legislation to regulate CSR in the mining industry both internally and externally. The emergence of new mining codes and regulations specifically targeting the governance of natural resources (known as *fourth generation*) has been witnessed in recent years (Baseda & Martin 2013). However, the South African government continue to introduce a variety of ways of encouraging and enforcing mining firms to comply with CSR policies. The wealth distribution mechanisms such BBBEE and MPRDA have been implemented to ensure compliance with the economic transformation process.

Mineral and Petroleum Resource Development Act 28 of 2002 (MPFDA)

The preamble of the MPRDA states the following:

> *recognising that minerals and petroleum are non–renewable resources; acknowledging that South Africa's minerals and petroleum resources belong to the nation and the state is custodian thereof. Affirming the state's obligation to protect the environment for the benefit of present and future generations, to ensure ecological sustainable development of mineral and petroleum resources and to promote economic and social development. Recognizing the need to promote economic and social development and social upliftment of communities affected by mining….*

Skills Development Act, 97 of 1998

The government of South Africa has made an effort to close the skills gap by enacting laws such as Skills development act. The purposes of Act are as follows:

- To develop the skills of the South African workforce;
- To increase the levels of investment in education and training;
- To encourage employers to promote inclusivity and diversity;
- To encourage workers to participate in training programmes;
- To improve the employment prospects for disadvantaged persons through training and education; and,
- To ensure the quality of education and training in and for the workplace.

Broad-Based Black Economic Empowerment Act, 55 of 2003 (BBBEE)

The main purposes of BBBEE are to enable wealth to be spread more broadly. The purposes of the BBBEE acts are as follows:

- increase number of black people that manage and own factors of production;
- facilitate ownership and management of enterprises and productive assets by communities, workers and co-operatives;
- promoting skills development among black people;
- achieving equitable representation in all occupational categories;
- preferential treatment from black owned enterprises; and,
- Invest in enterprises that are black owned.

Return on Assets

According to Hull & Rothenberg (2008:785), return on assets (ROA) "represents the profitability of the firm with respect to the total set of resources, or assets, under its control". It expresses the company's ability to generate profit as a consequence of the productive use of resources and effective management (Ongore & Kusa 2013). ROA (as an accounting ratio) has been used as a proxy to firm performance in many studies such as Waddock & Graves (1997), Mishra & Suar (2010), Ahamed *et al*. (2014), Dewi, Sudarma, Djumahir & Ganis (2014) and Ofori *et al*. (2014). The other important aspect about ROA is its link with firm's historical performance (Orlitzky *et al*. 2003). The justification for using ROA in many studies is that it is not affected by the differential degree of leverage present in firms and it is positively correlated to market price (Griffin & Mahon 1997). Basing on the nature of the population in the study (listed mining firms); and, ROA is the most appropriate because of the sector's capital intensiveness. Griffin & Mahon (1997) note that ROA is a better yardstick for asset-heavy firms from this viewpoint.

Relationship between Corporate Social Responsibility and Firm Profitability

A recent review of research examining the relationship between CSP and financial performance finds that the question dates back to the early 1970's (Margolis, Elfenbein & Walsh 2008). In trying to clearly define the direction and causality of CSP- CFP relationship, slack resources and management theories dominated most of the related studies (Waddock & Graves 1997). With management theory claiming that CSP should pioneer, while slack resource points out that financial performance enhances social performance. More interestingly, Tsoutsoura (2004), found a positive relationship between the CSR and CFP, the two theories; *slack resources* and *management theories* form the basis for involvement in CSR. The researchers continue to find neutral or positive or even negative relationships, this has not cleared the debate between the two aspects. However, many factors leading to a vexing relationship have been mentioned in many studies which include; firm size, industry and regulatory environment (Ofori *et al.* 2014); difficulty in defining a CSP measure (Mishra & Suar 2010; Perrini *et al.* 2009); and, methodological differences (Jyoti & Karunesh 2014). Additionally, a lack of consistent and reliable instruments to measure social performance (Waddock & Graves 1997; Piatti 2014), the absence of sound theoretical foundation to explain CSP constructs and quantification and measurement of most benefits (Tsoutsuora 2004) have also been found. Despite, the aforementioned factors, the link between CSR and CFP have emerged (Perrini *et al*. 2009) with interesting different interpretations and conclusions. The most important question yet to be answered is whether CSR influences CFP or CFP influences CSR or if there is a bidirectional relationship (Griffin & Mahon 1997). However, quite a number of researchers have found bi-directional relationships between CSR and CFP (Mishra & Saur 2010).

Quite a number of previous studies have shown that CSR can positively affect firm performance even though the findings depend on a number of factors. However, the majority of the meta-analysis articles point towards a positive CSR-CFP relationship (Griffin & Mahon 1997; Margolis & Walsh 2003; Van Beurden & Gossling 2008). Focusing on the existing literature on CSR-CFP relationship, scholars have continued to produce a positive link (Mishra & Suar 2010; Barnett & Salomon 2012; Islam *et al.* 2012; Anlesinya *et al.* 2014; Jyoti & Krunesh 2014; Piatti 2014; Ofori *et al.* 2014). In a study on CSR-CFP link, the paper by Ofori *et al*. (2014) examined the CSR-CFP relationship in Ghana's banking sector, the results established a positive relationship, despite control variables' impact on FP. Ahamed *et al*. (2014) found that a positive relationship exists between CSR based on environment, community and market place and CFP on the condition that firm size and firm revenue are regarded as control variables in three Malaysian companies. Furthermore, the studies by Jyoti & Karunesh (2014) and Mishra & Suar (2010) examined the relationship between CSR primary stakeholders and CFP. The former noted that CSR is the most innovative tool which positively impacted on firm's performance in the mining sector and the latter asserted that stock listed firms tended to be more socially responsible and have better FP than non-stock listed firms in India.

However, scholars have argued that social responsibility detracts from a firm's financial performance (McWilliams & Siegel 2001). They indicated that CSR cost is a burden to the company's financial resources, taking into account competitive markets. Despite dominance in positive studies, a certain group of scholars agreed that CSR activities have a negative effect on firm performance (Brammer *et al*. 2006; Beccheti *et al*. 2012; Iqbal *et al.* 2012). More interestingly, Iqbal *et al*. (2012) did a detailed study on establishing the relationship among CSR, FP, market value of shares and financial leverage. The results indicate that at the aggregate level, CSP has no effect on FP; and it has a negative effect on the market of shares but no relationship with the debit/equity behaviour of the firm. Beccheti *et al.* (2007) concurred with the above authors by indicating that CSR activities can result in increased firm costs.

The circumstances beyond control have also led some scholars to produce neutral results (Fu & Jia 2012; Nyirenda *et al.* 2013; Anlesinya *et al.* 2014) However, McWilliam & Siegel (2001) found no significant relationship between corporate social responsibility and firm performance. According to Fu & Jia's (2012) review of 63 studies that employed empirical, normative and meta-analysis methodologies, the results reveal that the CSR-CFP relationship is vexing because of control factors. Different studies were carried out across different industries, Inoue *et al.* (2011) analysed the CFP-CSP link in the sporting industry, CSR was found not to have positive effects on CFP although the positive CSR–CFP relationship was hypothesised based on the stakeholder theory. Nyirenda *et al.* (2013) examines the impact of environmental management practices (EMP) on the financial performance of South African mining firms. The results are shocking; no significant relationship was found to exist between the EMP variables and FP proxied by ROE.

H1 BBEEE Social Responsibility Programmes Affect Mining Companies' ROA

There is ongoing debate regarding the impact of BBBEE as a CSR programme on firm performance. Reviewing the extant literature on BEE and firm performance, different scholars found mixed results. Oni & Fatoki (2014) find that BEE policy positively impacted on the turnover and profitability of the businesses in Polokwane area in Limpopo Province. Kleynhans & Kruger's (2014) study reveals that the implementation of BEE within companies has a positive effect on profitability, turnover and investment. However, other studies have shown a negative impact of BEE on firm performance (Ferreira & De Villiers 2011). Findings show that there is a significant, negative association between a firm's BEE score and its share returns (Ferreira & De Villiers 2011). Mathura (2010) studied the impact of BBBEE on firm performance of JSE Listed companies. The study found that low-BEE scores have no negatives impact on a firm's profitability and value over time. In conclusion, Chipeta & Vokwana (2011) assess the impact of BBBEE transaction on shareholder's wealth and firm profitable, the results have shown that the BBBEE transaction negatively affect returns and firm profitability.

H2: Mining Firms' Skills and Training's Social Responsibility Programmes Impact on ROA

The minerals development can create many opportunities, including jobs, a transfer of skills and technology, and the development of local infrastructure and services. This was found in a in a study done by Prieto and Santana 2012 on human resources practices and impact on firm performance. The findings reveal that highly-involvement in human resource practice creates a favourable social climate resulting in improved firm performance. In view of this point, Fatoki (2011) studies the impact of human capital on firm performance. The results indicate that there is a significant positive relationship between human, social and financial capital and the performance of small business enterprises. On a similar note, Mamaqi (2015) focuses on the impact of different modes of training impartation on business performance. The results have shown that training has a significant effect on business performance. Employee related CSR can help the companies in many ways such as higher productivity and increase employee morale (Becchetti *et al.* 2008). However, promotion of skills development by companies has also rewarded them. Skills development programmes undertaken by the companies have helped in accumulation of BBBEE score card points. The link between skills development and firm performance can be easily accessed when CSR programmes are associated with financial measurement such as employee training, training of the youth and education (Jyoti & Karunesh 2014). Hence the firm must regard skills development as socio-economic development programme which can either benefit them or not.

DATA AND METHODOLOGY

The source of data used in this study was JSE and company websites from which integrated and sustainability reports were extracted. The five-year period from 2010-2014 was considered to fulfil the study requirements. The mining companies on JSE have been considered as population of this study. JSE SRI Index is viewed as the most credible institution in South Africa because of the effort it has been making in promoting responsible investment (Gladysek & Chipeta 2012). However, not all mining companies which are registered on JSE complied with the SRI index requirements. Although, SRI Index was introduced in 2004, most of the entities across all the sectors are finding it difficult to comply. Therefore, elimination of other mining companies was due to non-compliance with JSE SRI Index at November 2014. According to JSE SRI Index (2014), fifteen out of sixty mining companies complied with its requirements for responsible investment. Due to inconsistence in reporting and data completeness, through the employment of purposive sampling ten mining firms were selected which act as a representative of all the firms on JSE. Anonyms were used in place of real names in order to maintain objectivity and reliability of the research findings. The mining firms were: African Rainbow Mineral Ltd, Anglo American Plc, Anglo American Platinum, Aquarius Platinum Ltd, Exxaro Resources Ltd, Impala Platinum Holdings Ltd, Kumba Iron Ore, Northam Platinum Ltd, Royal Bafokeng Platinum and African Rainbow Minerals Ltd.

The data (for the years 2010–2014) from annual integrated; sustainability and transformation reports of the selected ten mining firms was collected. In this study the BBBEE procurement expenditure (BPE) and skills and training (STE) expenditure represent independent variable, are both expressed in South African currency (ZAR). While return on assets expressed in percentage constitutes an independent variable. Return on Assets as an accounting based measure is computed as follows ROA = $\frac{\text{Profits after Tax [Net Income]}}{\text{Average of Book Value Total Assets}}$

Hence the regression equation is as follows: $y= a+b_1x_1+b_2x_2$ (1)

Where: Y=return on assets; X_1= BBBEE procurement expenditure; X_2= Skills and training expenditure; *a*= intercept *and* b = *slope*

Hypotheses restated here:

H11: BBEEE social responsibility' (SR) programmes affect mining companies' ROA.

H10: BBEEE social responsibility programmes do not affect mining firms' ROA

H21: Mining firms' CSR programmes in skills and training have impact on ROA.

H20 Mining firms' CSR programmes in skills and training does not have impact on ROA.

The analysis of the data involved the uses of regression function in Microsoft excel. Using the multiple regression statistics at 0,05 significant levels, return on assets of 10 JSE SRI Index listed firms for the period of five years is regressed on two corporates social responsibility dimensions (BBBEE procurement expenditure (BPE) and skills and training (STE) expenditure).

Control Variables

This study will use two approaches of data analysis. The first model has already been mentioned which involves testing the relationship between CSR variables and firm performance variable. The second model will incorporate control variable in the regression equation. The most common control variable which affects the ROA are firm size denoted by number of employees and total sales proxied by total revenue for the firm. The utilisation of such control variable has been done in similar previous studies (Mishra & Saur 2010; Ahamed *et al*. 2014). The data on control variable have been collected from the annual integrated reports of the ten selected firms on the JSE SRI Index for the period 2010–2014.

Limitations

The limited number of companies (10) has been selected for review of their CSR practices for the period (2010-2014). The five-year period was considered more appropriate because integrated reporting was made compulsory by JSE in 2010. The introduction of integrated reporting has relatively standardised the reporting of non-financial information by the companies. Hence, the time frame of the study could not be extended further than five years taking into account fragmented reporting of sustainability information before 2010. On one hand, more mining firms are yet to comply with JSE SRI Index requirement (only 15 out of 60 firms complied). In future researches, it is expected to diversify the study by looking at other sectors and incorporating more companies as the level of compliance continues to improve.

DISCUSSION AND RESULTS

The results from the analysis have shown on the table 3 that the adjusted R square -0.015 is smaller than the significant level of 0.05. This proves that there is a significant relationship between CSR dimensions (BBEEE procurement expenditure and skills and training expenditure. However, the link is negative, further revealing that expenditure related to BBBEE and skills and training is a cost to the company. Therefore, it is accepted all the null hypotheses and disregard the alternative hypotheses: BBEEE social responsibility programmes affect mining companies' ROA and mining companies' skills and training SR programmes have an impact on ROA. Contrary to the findings, Ahmed *et al.* (2014) and Dewi, Sudarma, Djumahir & Eko (2014) find a positive relationship between CSR and ROA in their previous studies. The negative relationship is consistent with the finding of studies by Iqbal *et al.* (2012) and Beccheti *et al*. (2012), which reveal that CSR has a negative effect on market shares and expenditure on CSR programmes resulting in increasing firm's cost respectively.

In a further analysis involving incorporation of firm size represented by number of employees as a control variable, the results have shown that there is significant positive relationship between CSR and ROA. The adjusted R square is positive 0.0012 proving that there is positive relationship. In this study, the relationship between the variable is controlled by number of employees. Similar findings have dominated previous studies done by Yang, Lin & Cheng (2010), finding a positive link between CSR and ROA after incorporating firm size and research and development in the analysis. However, most the studies have found a positive relationship between CSR and firm performance. The mixed results revealed after taking into account control variable prove that firm size represented by number of employees is a major determinant of the positive link between the two variables. More surprisingly, Jyoti & Karunesh (2014) contented that the link between skills development and firm performance can be easily accessed when CSR programmes are associated with financial measurement such as employee and youth training. This is proving that firm size as a control variable is a predictor of firm performance, which further implying that if the firm grow in size, the profitability level of the firm would rise. It is evident that mining firms considered in this research are engaging in CSR programmes in order to comply with government legislation rather than being philanthropic.

Contribution to Knowledge

This article established the relationship between CSR and firm performance within the mining sector. CSR is not a new topic in South Africa, related studies have been done in the

Table 1: Descriptive statistics of variables

BBEE procurement expenditure		Skills and training expenditure		Return on assets	
Mean	8571020000	Mean	309601640	Mean	9,352
Standard Error	1192594106	Standard Error	51116038	Standard Error	2,8342025
Median	5500000000	Median	198000000	Median	3,3
Mode	9000000000	Mode	224000000	Mode	10,1
Standard Deviation	8432913795	Standard Deviation	361444971	Standard Deviation	20,040838
Sample Variance	7,1114E+19	Sample Variance	1,3064E+17	Sample Variance	401,6352
Kurtosis	3,37199001	Kurtosis	4,16922438	Kurtosis	7,8326264
Skewness	1,77464419	Skewness	2,08048547	Skewness	2,4813126
Range	3,8388E+10	Range	1482280000	Range	120,5
Minimum	912000000	Minimum	1720000	Minimum	–29,3
Maximum	3,93E+10	Maximum	1484000000	Maximum	91,2
Sum	4,2855E+11	Sum	1,548E+10	Sum	467,6
Count	50	Count	50	Count	50
Confidence Level (95.0%)	2396607583	Confidence Level (95.0%)	102721524	Confidence Level (95.0%)	5,6955432

Table 2: Data collected from the integrated reports

BBBEE procurement skills and training					
Company (Ltd)	Year	Expenditure	Expenditure	No. Employees	ROA
HAB	2010	R 7 700 000 000	R 221 000 000	10 510	1,8
	2011	R 7 800 000 000	R 200 000 000	10 903	13,5
	2012	R 7 900 000 000	R 177 000 000	8 873	24,5
	2013	R 4 700 000 000	R 225 000 000	8 203	20,4
	2014	R 4 900 000 000	R 140 000 000	8 236	16,8
ICD	2010	R 7 600 000 000	R 331 000 000	53 000	–0,2
	2011	R 9 000 000 000	R 428 000 000	56 000	1,3
	2012	R 8 000 000 000	R 354 000 000	61 000	5,9
	2013	R 5 000 000 000	R 357 000 000	56 000	10,1
	2014	R 4 400 000 000	R 272 000 000	55 000	7,7
JEF	2010	R 1 200 000 000	R 187 600 000	47 268	0,3
	2011	R 2 200 000 000	R 224 000 000	46 378	–3,8
	2012	R 4 100 000 000	R 700 000 000	18 645	6,8
	2013	R 3 500 000 000	R 602 000 000	16 852	10,1
	2014	R 2 600 000 000	R 462 000 000	15 440	0,5
KHI	2010	R 1 919 000 000	R 41 300 000	11 072	–1,8
	2011	R 3 186 000 000	R 35 800 000	10 024	–29,3
	2012	R 4 371 000 000	R 30 800 000	10 140	–11,9
	2013	R 3 763 000 000	R 25 200 000	9 964	–0,7
	2014	R 2 900 000 000	R 23 872 000	10 273	2,4
LJK	2010	R 18 700 000 000	R 196 000 000	22 776	8,8
	2011	R 17 600 000 000	R 180 000 000	28 704	4,5
	2012	R 17 100 000 000	R 137 000 000	26 587	10,2
	2013	R 16 600 000 000	R 96 000 000	24 711	11,1
	2014	R 11 000 000 000	R 50 000 000	24 711	6,7
M LM	2010	R 11 900 000 000	R 580 000 000	54 022	0,4
	2011	R 8 500 000 000	R 427 000 000	58 541	–1,7
	2012	R 11 000 000 000	R 597 000 000	56 379	–7,8
	2013	R 10 400 000 000	R 550 000 000	49 816	4,3
	2014	R 8 200 000 000	R 395 000 000	49 763	12,7

BBBEE procurement skills and training					
Company (Ltd)	Year	Expenditure	Expenditure	No. Employees	ROA
NNP	2010	R 39 300 000 000	R 1 484 000 000	140168	–2,2
	2011	R 32 400 000 000	R 1 456 000 000	146708	0,6
	2012	R 25 800 000 000	R 1 372 000 000	136319	0,8
	2013	R 23 300 000 000	R 1 106 000 000	158892	11,4
	2014	R 20 900 000 000	R 294 000 000	151 228	13,2
OOQ	2010	R 14 400 000 000	R 276 700 000	11 206	29,6
	2011	R 11 110 000 000	R 285 500 000	11 898	49,8
	2012	R 9 000 000 000	R 224 000 000	11 376	46,2
	2013	R 6 000 000 000	R 120 400 000	11 977	91,2
	2014	R 3 900 000 000	R 134 800 000	12 744	79,9
PRS	2010	R 1 900 000 000	R 114 400 000	7 670	2
	2011	R 1 400 000 000	R 99 100 000	7 922	1,4
	2012	R 1 300 000 000	R 95 600 000	7 743	0,9
	2013	R 1 290 000 000	R 38 150 000	7 907	1,4
	2014	R 1 100 000 000	R 26 840 000	8 873	2,2
QTV	2010	R 1 600 000 000	R 18 500 000	8 562	0,1
	2011	R 1 300 000 000	R 21 400 000	8 927	3,7
	2012	R 2 300 000 000	R 15 400 000	9 163	2,5
	2013	R 1 600 000 000	R 1 720 000	9 148	2,9
	2014	R 912 000 000	R 50 000 000	9 148	6,4

past (Mabuza *et al*. 2010; Diale 2014). Authors are not aware of other previous studies which specifically looked at the effect of CSR elements (BBBEE procurement and skills and training expenditure) on JSR listed mining firms. Hence, this study contributes to the empirical literature of CSR in many ways. CSR is very broad, continuation of further researches by incorporating other variable is necessary. Future studies must explore the link between CSR and firm performance in other industrial sectors.

CONCLUSION

The research findings form the basis on which mining firms can create a platform for reviewing their CSR policy framework. South African history has been the reason for the

Table 3: Regression results without control variables

Regression Statistics	
Multiple R	0,160851385
R Square	0,025873168
Adjusted R Square	-0,015579037
Standard Error	20,19634348
Observations	50

ANOVA	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	2	509,18718	254,59359	0,6241687	0,5400878
Residual	47	19170,938	407,89229		
Total	**49**	**19680,125**			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	9,619237723	4,108060356	2,34155219	0,0234944	1,3548863	17,883589	1,3548863	17,883589
BBT	4,70851E-10	5,33506E-10	0,88255862	0,3819666	-6,024E-10	1,544E-09	-6,02E-10	1,544E-09
STE	-1,38982E-08	1,24473E-08	-1,1165643	0,2698565	-3,894E-08	1,114E-08	-3,89E-08	1,114E-08

Table 4: Regression results with control variables (number of employees)

Regression Statistics	
Multiple R	0,249651458
R Square	0,062325851
Adjusted R Square	0,001173189
Standard Error	20,02907901
Observations	50

ANOVA	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	3	1226,5805	408,86017	1,0191846	0,392869
Residual	46	18453,544	401,16401		
Total	**49**	**19680,125**			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	9,860497805	4,078030446	2,41795591	0,0196263	1,6518483	18,069147	1,6518483	18,069147
BBE	7,89971E-10	5,80415E-10	1,36104531	0,1801302	-3,783E-10	1,958E-09	-3,78E-10	1,958E-09
STE	-3,16753E-09	1,47231E-08	-0,2151398	0,8306093	-3,28E-08	2,647E-08	-3,28E-08	2,647E-08
Employees No.	-0,000175219	0,000131028	-1,3372657	0,1877112	-0,000439	8,853E-05	-0,000439	8,853E-05

speedy socio-economic transformation. The mining corporates should improve their CSR effort towards primary stakeholders in order to create sustainable relationships. Alternatively, formulation of CSR partnership with the community (Mabuza *et al.* 2010), can lead to well-coordinated social responsibility engagements. Endlessly effort by the mining firms may lead to closure of CSR gap in South Africa. However, offsetting benefits may accrue as corporates implement community-based CSR policies. The article finds that the continued poverty among mining communities cannot be directly attributed to absence of good corporate governance of the relationship between CSR and ROA.

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