

Corporate Social Responsibility and Access to Finance: A Study of Firms on the Ghana Stock Exchange

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Abstract

This study investigates the relationship between corporate social responsibility (CSR) and access to finance, using data from companies listed on the Ghana Stock Exchange (GSE). The study adopted multiple regression in investigating the relationship between corporate social responsibility (CSR) in terms of profitability (measured by return on equity – ROE) and philanthropy (measured by corporate social responsibility disclosures – CSRED), and access to finance (measured by growth in equity, retained earnings, debt and working capital). Economic responsibility and access to finance measured by growth in retain earnings are negatively and insignificantly associated. Discretionary responsibility has positive and significantly relationship with growth in equity capital. Again, economic

responsibility is negatively and insignificantly related to growth in debt stock, while discretionary responsibility is positively and significantly associated with growth in debt stock. Finally, economic responsibility is negatively related to growth in working capital, while discretionary responsibility is positively related to growth in working capital, but both cases are significant. The study encourages firms to embark on higher level social responsibility, since that can alleviate access to finance challenges faced by firms.

Keywords: *Access to finance, corporate social responsibility, discretionary responsibility, economic responsibility, Ghana Stock Exchange*

Introduction

The sustainable growth of firms is usually tied with how much they have as retained earnings or internally generated funds and also debt sources (Carpenter, & Petersen, 2002; Rahaman, 2011; Allen, Chakrabarti, De, Qian, and Qian, 2012; Chen, & Guariglia, 2013; Beck, Demircug-Kunt, Laeven, & Levine, 2005). The case is different with large firms, especially those that have their stocks traded on the stock exchange in the sense that they have access to both internal and external finance. There has been evidence from some countries that firms with access to external finance grow more quickly (Rajan, & Zingales, 1998; Moore, Craigwell, & Maxwell, 2005; Ayyagari, Demircug-Kunt, & Maksimovic, 2010; Girma, & Vencappa, 2015). Even though companies need cashflows to implement their positive net present value projects to ensure sustainable growth, there have been calls on businesses to help improve the social welfare of the communities within which they operate. According to Friedman (1970), the only social responsibility of a business is to increase profitability for its owners. In effect, Philanthropic gestures by businesses beyond the

statutory requirement is a negation on sustainable growth prospect of firms, which can be injurious to shareholder wealth maximisation (Jensen & Murphy, 1990; Bhandari & Javakhadze, 2017). Because of this, businesses expect that their engagement in social responsibilities activities would enable them to enjoy some economic benefits. In this paper, we analyze how the level of social obligation and responsiveness of firms listed on the Ghana Stock Exchange can assist them to access finance. Social obligation is defined as a company's resolve to concentrate on enhancing the value of shareholders without bothering on giving to society beyond statutory requirements. Social responsiveness of firms connotes the resolve of management to incorporate the needs of the community in their mission statement to the extent that companies go beyond reacting to the needs of the community by allocating resources to solve societal problems.

According to CSR Foundation Ghana (2011), CSR is defined as a planned, systematic and ethical corporate behaviour that meet statutory and regulatory requirements beyond an organisation's mission statement and satisfies the needs of all

stakeholders and social imperatives in a transparent and sustainable manner for development. In this sense, the stakeholder view of CSR admonishes companies to behave as citizens and contribute to the improvement in the environment within which they operate (Freeman, 2007, 2010). However, by engaging in CSR, companies can gain some reputational and economic benefits. This study aims at ascertaining the relationship between corporate social responsibility and access to finance of companies listed on the Ghana Stock Exchange. It seeks to find the relationship between economic responsibility and discretionary responsibility among CSR components (economic responsibility, legal responsibility, ethical responsibility and discretionary responsibility) as proposed in Carroll (2016), and access to finance of listed firms in Ghana. Both ethical responsibility's and legal responsibility's relationships with access to finance are excluded because ethics is subjective, and it varies rapidly depending on cultural and geographical setting. It is also difficult to ascertain data on legal responsibility since such responsibilities are mandatory.

Some empirical literature on CSR have affirmed that CSR, in a way, has positive impact on firms. Cited in Moura-Leite and Padgette (2011), a report by Vogel (2005) on a 2002 survey by PricewaterhouseCoopers (PwC) revealed that 70% of global chief executives believed that CSR is vital to their companies' profitability. Similarly, according to UN Global Compact – Accenture CEO Study (2010), 93 percent of the 766 participant CEOs from all over the world declared CSR as crucial factor for their organisations' future success. In Margolis, Elfenbein, and Walsh (2009), a meta-analysis of the relationship between corporate social and financial performance, it was found that corporate social performance (CSP) has a small, positive and significant effect on corporate financial performance. Wang and Qian (2011) also analyzed data on philanthropic activities of publicly listed Chinese firms from 2001 to 2006 and found a positive relationship between corporate philanthropy and financial performance measured by return on assets (ROA). Their research demonstrated that corporate philanthropy enables firms to produce better stakeholder responses and to gain political resources. Finally, Cheng,

Ioannou, and Serafeim (2014) found that firms with better CSR performance face lower capital constraints. Also, CSR performance with stakeholder engagement reduces potential agency and transaction costs and enhances revenue or profit generating potential of the firm. In Ghana, Ansong (2017) conducted a cross-sectional analysis on the effect of CSR on financial constraints of small and medium enterprises (SMEs) in the Accra Metropolis. His findings suggest that CSR engagement by SMEs influences their capacity to access external finance. However, unlike Ansong (2017), this study employs a panel analytical framework on objective data gathered from audited annual reports produced by listed firms in Ghana.

Figure 1 shows the trend of performance all stocks listed on the GSE. The figure depicts a general positive trend in the performance of the GSE composite index. However, intermittent fluctuation in performance has been recorded over the period. For the period under consideration, 2012-2016,

we see a downward trend in performance from 2014. The exchange recovered from 2017 to just about the end of the first quarter of 2018 and then took a downward trend till 27 March, 2020. From the website of the GSE on 29th March, 2020, it was recorded that the “performance of GSE market indices, the benchmark *GSE Composite Index* (GSE-CI), pared 0.38 (-0.02%) points to close at 2,160.52, representing a 1-week loss of 0.85%, a 4-week loss of 0.76%, and an overall year-to-date loss of 4.28%. The *GSE Financial Stocks Index* (GSE-FSI) also decreased by 0.04% to 1,925.60 points, making it a 1-week loss of 1.36%, a 4-week loss of 1.98%, and a year-to-date loss of 4.66%”. The figures show that the performance has been falling in recent times. As we discussed in the first paragraph, studies show that firms will not grow if they do not have enough access to finance to implement their investment projects. This study examines whether CSR engagements by firms listed on the Ghana Stock Exchange will enable them to reduce internal and external constraints.



Figure 1: Movement of GSE Composite Index from 2011 to 2020

Source: Ghana Stock Exchange (2020)

The study is organised as follows. Section two reviews related literature on the issues. Section three discusses the methodology of the study. Section four presents the results and discussion on the findings. The fifth section concludes on the findings of the study.

Literature Review

Instrumental theories of CSR engagements include shareholder's wealth maximisation theory, and strategic goals for achieving competitive advantages. They emphasise that firms should undertake social activities that go a long way to increase profitability which can contribute to shareholder wealth maximisation. In addition, investments in competitive context such as philanthropy

create competitive advantages for a firm, therefore, philanthropy must be in line with the organisation's mission (Freeman, 2007, 2010). Profit maximisation and competitive advantage in themselves can create opportunities for firms to attract external finance. In summary, instrumental theories view CSR as a strategic tool, which firms can undertake to achieve their economic objective and ultimately create wealth as well as boost opportunities of firms' access to finance (Garriga & Mele, 2004).

It is an undeniable fact that the goal of every firm is to make profit for its shareholders, which will culminate in improving the wealth of shareholders. The classical argument is that CSR activities are conflicting to the tenet of agency relationship

between shareholders and board of directors and that the sole responsibility of businesses is to increase the wealth of shareholders (Friedman, 1970). Proponents argue that if firms pay taxes and obey the laws and business regulations of the land, then their residual interest only lies in making their shareholders happy, because shareholders supply the resources used in the production process. Firms spend a lot on CSR and that is a negation on efficiency and wealth creation for owners. This argument by Friedman forms the foundation for the economic view of CSR, that the only responsibility of the firm is to make profit and pay taxes to the government. This economic argument of CSR is supported by Jensen and Murphy (1990), who argue that if managers are not checked, they can over-invest in CSR engagements at the expense of engaging in investments positive net present value projects. In other words, funds committed to CSR activities can reduce the amount of money available for investment opportunities, which can, in turn, reduce the growth prospects of firms, thereby increasing the sensitivity of capital investments (Bhandari & Javakhadze, 2017). Pursuance to firm survival and performance, capital-constrained firms can

decide to forgo investments with positive net present values (NPVs) that they would have undertaken if they had capital. Cheng, Ioannou, and Serafeim (2011) emphasised that capital constraints relate to market frictions that prevent firms from funding all desired investments. They include inability to borrow, inability to issue equity, and illiquidity of assets (Lamont, Polk & Saa-Requejo, 2001). Cheng et al. (2011) also showed that firms with better CSR performance face capital supply curve that is less steep, which suggests that they have open market to loanable funds at any small increase in interest rates. The authors arrived at the conclusion that market participants are more willing to allocate scarce capital resources to firms with better CSR performance. However, financing constraints vary among firms on the basis of size (Cincera, 2003; Czarnitzki, & Hottenrott, 2011), age (Beck, Demirgüç-Kunt, Laeven, & Maksimovic, 2006; Canepa, & Stoneman, 2002; Macusi, & Vezzulli, 2014; Cincera, Ravet, & Veugelers, 2016), level of risk (Canepa, & Stoneman, 2002), type of owners—whether foreign or locals (Drakos, & Giannakopoulos, 2011;

Gorodnichenko, & Scnitzer, 2013), among others.

On the other hand, the overwhelming evidence suggests that social actions by entities benefit societies and societies reciprocate by rewarding entities in various ways that culminate in maximising shareholders' wealth. Firms that engage in social responsibility are perceived as good citizens. For that matter, prime stakeholders, such as customers, reward such firms by patronising their product. CSR disclosure information entails positive news about a firm, which increases the reputation of such firms. In addition, engagement in CSR can generate core resource capabilities for firms by improving firm value due to stakeholders' acceptability. However, the stakeholder view of CSR posits that firms have greater responsibility to ensure that all its stakeholders are happy. Firms generate a lot of resources, such as competent employees, raw materials, and revenue, from the communities within which they operate, so it is right for the firm to support society's development. Because of the resources they mobilise, businesses are better positioned to support the course of societies. In the empirical literature, however, it appears that firms that engage and disclose

their CSR activities enjoy one economic benefit or the other. CSR activities offer strategic options for firms to differentiate their product, increase patronage and earn greater profits (Albuquerque & Zhang, 2019).

In line with firms' economic responsibility of CSR, profitability can serve as both internal finance and a means to attract external financing from shareholders, especially when expressed in terms of return on equity. Profitability, a measure of firms' financial performance, is one aspect financial institutions consider before they accept to grant businesses with external funds. According to Pandula (2011), financial performance indicates the ability of businesses to repay their loans to the extent that, if businesses are profitable, they have high chances to amortise loans within the terms and conditions. In their bid to mitigate credit risk, financial institutions focus on the profit ability of businesses that request for external funds. Besides, individuals and institutional investors also consider the profitability of the business in order to predict the tendency of default of the bond agreement and make informed investment decisions. All these suggest that there exists a relationship between

profitability and access to finance. However, in contrast to profitability as a measure contributing to access to finance, Zarook, Rahman, and Khanam (2013) suggest that there is no significant influence of financial performance (measured by profit and return on asset) on access to finance in Libyan's SMEs.

In terms of access to finance, the extant studies that employ cross-sectional analytical framework suggest that CSR is responsible for the reduction in external financial constraints, because CSR increases corporate transparency and information asymmetry (Cheng, Ioannou, & Serefeim, 2014). Wang and Qian (2011) found that corporate philanthropy elicits stakeholder response and puts a company at better position to attract political resources from government. This is true with companies that make their philanthropy visible essentially to primary stakeholders through disclosure of CSR information. In China, large firms that can afford advertising benefit more from charitable giving than firms that do not disclose CSR information. The import of this is that positive behaviours are stimulated in stakeholders when firms identify needs of society and take pragmatic steps to salvage these

social imbalances. These positive behaviours from stakeholders may include investments from socially conscious investors, increase in demand and tax cuts, which are all sources of finance for the company. However, corporate philanthropy must have direct impact on primary stakeholders in order to generate shareholder value. It stands to reason that, consistent with the instrumental theories, corporate philanthropy must be guided by the organisation's mission, in order to attain competitive advantage.

Similarly, Lee, Kim and Kwon (2017) examined whether CSR performance on host firms can increase foreign investment, with a sample of Korean public firms, and found a positive relationship between high CSR performance and foreign investment. Thus, a company's philanthropic activities, after establishing reputation for a company, all other things being equal, attracts financial resources from investors from different geographical settings. In addition, disclosure of CSR information increases firms' chances of getting access to external finance (Ansong, 2017; Lins, Servaes, & Tamayo, 2017; Garcia-Sanchez, Hussain, Martinez-Ferrero, & Ruiz-Barbadillo, 2019). This happens because CSR

engagement increases firm value, which can serve as a collateral in accessing funds from the bond's market. Social capital does not only reduce the risk-taking behaviour of financiers, but can also ensure the stability of banks, which operates in high social capital regimes (Jin, Kanagaretnam, Lobo, & Mathieu, 2017). In the same token, Lee, Kim and Kwon (2017) examined whether CSR performance on host firms can increase foreign investment for Korean public firms. They found a positive relationship between high CSR performance and foreign investment. Thus, a corporate's philanthropic activities after establishing reputation for a company, all other things being equal, attracts financial resources from investors. Firms that are proactive in CSR engagements can send signals to the credit market that they expect enough liquidity that can assist them not only to fund CSR activities, but also to honour their debt obligations when they fall due. This increases their credibility and reduces external finance constraints.

Firms' participation in CSR is most often measured by their performance in philanthropic activities. It includes cash and in-kind donations. Wang and Qian

(2011), by analyzing data on philanthropic activities of publicly listed Chinese firms, from 2001 to 2006, found a positive relationship between corporate philanthropy and financial performance (measured by return on asset). The result is consistent with Sen and Bhattacharya's (2001), that CSR through philanthropy can function as advertising that can increase demand for products and services, and/or reduce consumer price sensitivity. Moreover, CSR can attract socially responsible consumers (Hillman, & Keim, 2001), or attract financial resources from socially responsible investors (Kapstein, 2001).

Furthermore, Cheng et al. (2011) cited that CSR can have a positive impact by allowing for better marketing of products and services (Fombrun, 1996), providing better access to valuable resources (Waddock, & Graves, 1997), attracting and retaining higher quality employees (Turban, & Greening, 1997; Greening, & Turban, 2000). CSR also creates unanticipated prospects (Fombrun, Gardberg, & Barnett, 2000), serves as advertising (which increases demand for products and services) and reduces consumer's sensitivity to prices (Sen, & Bhattacharya, 2001). It can be deduced that all

the above translates into profit, which can, in turn, contribute to a firm's accessibility to internal finance.

The foregoing discussion shows the importance of CSR to firms. Firms' CSR activities can also be inhibited by inadequate access to finance to undertake socially responsive behavior. In most cases, conflicts ensue when managers find themselves between committing money to achieving CSR objectives and generating enough free cash flows to distribute to shareholders. This study examined whether firms that engage in CSR activities are more likely to access funds from investors. This study is closely related to that of Ansong (2017) particularly because of the evidence that both studies have Ghana as study setting. Ansong (2017) collected primary data from 423 small and medium enterprise operators in the Accra Metropolis to ascertain the impact of SMEs' CSR activities on access to finance with stakeholder engagement mediating the relationship. The study reported positive relationship between CSR activities and SMEs access to finance. However, the use of primary data to solicit self-reported responses on objective concepts, such as access to finance, is problematic, since

operators may not provide the true picture of affairs. The current study analysed audited financial data from listed firms, which are considered larger and highly regulated to provide true financial information periodically. Unlike Ansong's (2017), which employed snap-shot analysis on the issues, this study employed a panel data analysis technique, which allows the exploitation of time series and cross-sectional dynamics in the observation. The period of the current study spanned from 2012 to 2016, using annual observation from 11 listed firms. The expectation from the analysis was that firms that engaged in CSR activities would enjoy reputations that would enable them to access funds on the credit market in both the short- and long-term.

Methodology

The study was on listed firms on the Ghana Stock Exchange. As of Monday, April 23rd, 2018 there were 41 listed ordinary share equities on the Ghana Stock Exchange. The number includes both companies on the main market and Ghana Alternative Market (GAX). The study focuses on those firms that have been on the main market for a five-year period between 2012

and 2016, therefore, by taking out Access Bank Ghana and Agriculture Development Bank (that were listed in 2016); and HORDS LTD, Meridian-Marshalls Holdings, and Samba Foods Ltd, DIGICUT and Intravenous Infusions Limited (that are all on the Ghana Alternative Market), AngloGold Ashanti Depository Limited (AADs) and NewGold Issuer Limited (which is an Exchange Traded Fund – ETF); 32 equity

share companies became our population size. However, amongst the 32 equity companies that were on the GSE’s main market from 2012 to 2016, only eleven companies have reports on their CSR activities. Therefore, to aid comparison, these eleven companies were chosen for the study (see Table 1). A five years’ data on these 11 companies generated fifty-five observations for the correlation and regression analysis.

Table 1 - List of companies included in the population size are as follows

No.	Symbol	Company
1	CAL	Cal Bank Limited
2	ETI	Ecobank Transnational Incorporated
3	FML	Fan Milk Limited
4	GCB	Ghana Commercial Bank Limited
5	GOIL	Ghana Oil Company Limited
6	PZC	PZ Cussons Ghana Ltd.
7	SCB	Standard Chartered Bank Ghana Ltd.
8	SIC	SIC Insurance Company Limited
9	SOGEHG	Societe Generale Ghana Limited
10	TBL	Trust Bank Limited (THE GAMBIA)
11	TLW	Tullow Oil Plc

Source: Annual Report and Financial Statements (2012-2016)

Data Source and Collection Instrument

Data was collected from secondary sources, mainly audited annual report and financial statements, and relevant information on the World Wide Web. Data on CSR expenditure

disclosures were obtained from the websites of the listed firms. These sources were used, because they provide objective data points devoid of subjective biases. Data used in the computation of return on equity as a measure of profitability, and in the

computation for growth in equity, growth in retained earnings, growth in working capital and growth in debt stock (as measures for access to finance) were all ascertained from companies' annual report and financial statements. In addition, data on the number of corporate giving, a measure of philanthropy, were taken from companies' annual report for the period under review and the World Wide Web.

The financial statements of some companies were denominated in US Dollars. Hence, where applicable, the US Dollars denominations were converted into Ghana Cedi, using end of year direct daily exchange rates averages of 1US Dollar to GHC 1.5469, GHC 1.8522, GHC 2.0681, GHC 3.0494, GHC 3.7838, and GHC 3.9424 for the years 2011, 2012, 2013, 2014, 2015 and 2016 respectively. The financial statements of the Trust Bank Ltd. (THE GAMBIA) were

denominated in Gambian Delasi (GMD). In this case, the cross-exchange rates were used. Thus, the value of Gambian Delasi in Ghana Cedi was computed as follows: $GHC/GMD = \frac{GMD/USD}{GHC/USD}$. Therefore, the rates used were GHC 0.0546; GHC 0.0595; GHC 0.0606; GHC 0.0762 and GHC 0.0923 and GHC 0.0942 for the years 2011, 2012, 2013, 2014, 2015 and 2016.

Model Specification

The study adopted a mathematical model to establish relationships between dependent variable and independent variables. The variables of the study include: access to finance, economic responsibility, and discretionary responsibility besides other control variables. This study followed the previous work of Cochran and Wood (1984), whose general regression equation is stated below:

$$CFP_i = a + b_j CSR_{ij} + b_k IND_{ik} + \varepsilon_i \quad (1)$$

Where;

CFP_i = Average Financial Performance for each firm

CSR_{ij} = Corporate Social Responsibility

IND_{ik} = Industry

a = Constant

$\varepsilon_i = \text{Error term}$

Equation (1) is modified and stated clearly as:

$$AtF_{it} = \beta_0 + \beta_1 ROE_{it} + \beta_2 CSRED_{it} + \beta_3 X_{it} + \mu_{it} \quad (2)$$

Where, AtF is access to finance measured by growth in equity (GiE), growth in retained earnings (GRE), growth in working capital (GWC) and growth in debt stock (GiD). Growth is measured in their absolute values and not in percentages, hence, Growth in equity (GiE) is computed as the current year's equity minus previous year's equity and so on. ROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. CSRED is Corporate Social Responsibility Expenditure Disclosed. This is chosen as a proxy for measuring expenditure on philanthropy.

X= Set of control variables. Total revenue and total assets (non-current assets plus current assets) are the proxies for measuring firm efficiency and firm size respectively.

β_0 = Constant

β_{1-3} = Regression coefficient to be determined

μ = Disturbance term= $v+\pi$ where v and π are the unobserved cross-section effect and time effects respectively.

$_{it}$ = Time and cross-section dimension of variables

Following previous studies (Wang, & Qian, 2011; Ameyibor, 2015), the study employed natural logarithms on all the variables. Taking natural logarithms helped the study to eliminate heteroscedasticity in the disturbances (Adams, & Hardwick, 1998), and minimize the effects of extreme values in the dataset and enable outliers to be linearly distributed for a better fit model. Therefore, equation (3) satisfies the objectives of (1) ascertaining the relationship between economic responsibility and access to finance and (2) ascertaining the relationship between corporate philanthropy and access to finance.

Definition of Variables

Access to Finance

Access to finance (measured by growth in equity, growth in retained earnings, growth in debt stock, and growth in working capital) is the dependent variable, because its variability was

explained by another variable (economic responsibility, or discretionary responsibility). Growth in equity was computed as the growth in ordinary equities' value over the five years period from 2012 to 2016. Thus, growth in 2012, 2013, 2014, 2015, 2016; with growth in 2012 being difference in equity values between 2012 and 2011, and so on. Equity was measured in terms of its book value, because of the inconsistencies in the equity value if it were measured in market value, since market prices of shares vary daily. Growth in retained earnings was computed as difference in retained earnings over the five years period from 2012 to 2016, where growth in 2012 referred to difference in retain earnings between 2012 and 2011, and so on. Growth in debt stock was computed as difference in long-term debt over the five years' period from 2012 to 2016, with growth in 2012 being difference in long-term debt between 2012 and 2011, and so on. Any short-term debt was excluded, because it was captured in the computation of growth in working capital. Finally, growth

in working capital (i.e. current assets – current liabilities) was computed as changes in working capital over the five years' period from 2012 to 2016. Again, growth in 2012 was computed as difference in working capital between 2012 and 2011, and so on. Our measurements represent the primary sources of finance for most businesses in Ghana. The values representing growth for each component of access to finance measurement are what we presented as dependent variables in the regression estimates. The increments in the various sources of finance mostly available to corporate entities reflect new sources of finance which may be due to CSR engagements.

Economic Responsibility

According to Carroll (2016), business organisations are economic units for the purpose of providing goods and services to consumers for an acceptable level of profit, making profitability a primary incentive for businessmen. It is the basis for which the other components of CSR are anchored, therefore, it is the foremost condition for which society expects that the business be created and sustained. Profitability can be measured by

profit margin, return on assets, earnings per share, and return on equity. Earnings per share and return on equity are appropriate measures so long as shareholder wealth maximisation is concerned. However, for the purpose of this study, economic responsibility describing financial performance was measured by return on equity (ROE), because it is a perfect measure for required rate of return of shareholders' investments. ROE was computed as net profit after interest and tax divided by ordinary shareholders' equity. The use of profitability as a measure of economic social responsibility is anchored in the Friedman's (1970) argument that the only social responsibility of companies is to make profit for their shareholders provided the companies have fulfilled their statutory obligation, such as adherence to regulations and payment of taxes. However, economic responsibility is the lowest level of social responsibility, therefore, the paper also measured CSR by discretionary responsibility.

Discretionary Responsibilities

These include corporate actions that are in response to society's expectations that businesses would be good citizens. It involves acts or programmes to promote human

welfare or goodwill, such as contributing money, facilities and employee time to humanitarian programmes or purposes in the community (Carroll, 1991). They include all forms of business giving (Carroll, 2016). Discretionary responsibility is measured by the monetary value of corporate to society, which is a quantitative measure. According to Ameyibor (2015), with reference to Wood and Jones (1995), qualitative measures of CSR performance indices, such as Moskowitz ratings and fortune ratings, have often been criticized, because they are subjective. Again, according to Ameyibor (2015), using Kinder, Lydenburg, Domini (KLD) scale has been argued to be a numerically crude approach to quantify what is nearly to be unquantifiable. Measuring corporate giving in monetary terms scraps away biases of using just subjective views of organisations' corporate giving, which does not give a fair representation of firms' philanthropy. Therefore, consistent with Ameyibor (2015), the study employed a quantitative measurement, namely various expenditures incurred on CSR activities. However, unlike corporate social responsibility expenditures disclosed (CSRED) on profit before tax, as it was used

in Ameyibor (2015) and some prior studies, this study picked only the absolute values of CSRED, as used in Wang and Qian (2011).

Control Variables

Also included in the independent variable in each of the objective is “firm size,” referred as control variable. The size of a firm can influence the ability of a firm to undertake CSR activities (Cheng, Ioannou, & Serafeim, 2011; Waddock, & Graves, 1997), since large firms have more resources than small firms and can enjoy economies of scale (Wang, & Qian, 2011), or get external funding than small firms. This would interfere with our result, if not controlled, hence, the need for its inclusion in the independent variable. Consistent with Waddock and Graves (1997), firm size was measured in terms of total assets.

We also used total revenue (LTS) as a control variable. Total revenue provides a short-term buffer to support operations of the business. Firms that are expecting a surge in revenue will procure more of contingent assets and liabilities.

Operational assets (account receivable and inventories) and operational liabilities (account payables and accrued expenses) increase with revenue and, therefore, determines the level of operational leverage and the level of cash forecast of firms. Again, the values over the five-year period for total assets and total revenue were obtained from the audited financial statements of the listed firms.

Data Processing and Analysis

The study adopted Fixed/Random effects estimated, using panel least squares (LS) and Pooled Ordinary Least Squares (OLS) for the estimations. This estimation requires some initial validation in order to ascertain consistent results. Hence, we tested for correlation, multicollinearity, autocorrection and homoscedasticity. Statistical software used for data processing include Microsoft Excel 2019, EViews 10 and Statistical Package for the Social Sciences (SPSS) 21.

Results and Discussion

Eleven companies had data on their CSR activity expenditure either published in the annual reports or disclosed on the World Wide Web from 2012 to

2016. There were 55 observations in all with average observations of 25 after adjustments to produce result.

Diagnostic Test Results

Correlation Matrix Test Result

Table 2 presents the correlation between the variables included in this study. This was meant to show that the

independent variables (LROE_{it} and LCSR_{it}) and the control variables (LTA_{it} and LTS_{it}) have a relationship with the dependent variables (LGiE_{it}, LGRE_{it}, LGiD_{it} and LGWC_{it}). The table shows that both the independent and control variables have some correlation with the dependent variables.

Table 2 Correlation Matrix Test Result

		LGI E	LGRE	LGI D	LGW C	LCSRE D	LTA	LTS
LGIE	Pearson Correlation Sig.	1						
LGRE	Pearson Correlation	.567 (.054)	1					
LGID	Pearson Correlation	.421 (.198)	.787** (.000)	1				
LGWC	Pearson Correlation	.839** (.000)	.676** (.000)	.872* (.000)	1			

LROE	Pearson Correlation	.442 (.051)	.719** (.000)	.558* (.004)	.629** (.000)	1			
LCSRED	Pearson Correlation	- .511*	.094 (.596)	.091 (.653)	-.122 (.504)	-.241 (.156)	1		
LTA	Pearson Correlation	.805** (.000)	.463** (.006)	.802* (.000)	.561** (.000)	.223 (.155)	.572** (.000)	1	
LTS _{it}	Pearson Correlation	.792** (.000)	.233 (.185)	.615* (.000)	.405* (.016)	.057 (.718)	.600** (.000)	.843* (.000)	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Access to finance is measured by growth in equity (LGIE), growth in retained earnings (LGRE), growth in working capital (LGWC) and growth in debt stock (LGID). Growth is measured in their absolute values and not in percentages, hence, Growth in equity (LGIE) is computed as the current year's equity minus previous year's equity and so on. LROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. LCSRED is Corporate Social Responsibility Expenditure Disclosed.

Source: Annual Report and Financial Statements (2012-2016)

Multicollinearity Test

Table 3 presents the multicollinearity test result of the independent variables in each case with their dependent variables. It is seen from Table 3 that the Tolerance values of each of the independent variables are above 0.10. This is supported by the Variance Inflation Factors (VIF) of each independent variable in each case with their dependent

variables, which are all less than 10. This implies that there is no multicollinearity among the independent variables. Table 3 also presents the multicollinearity test results showing for both Tolerance values and VIF of the various independent variables (LROE, LCSRED, LTA, and LTS) in each case when regressed on the dependent variables (LGIE, LGRE, LGID and LGWC).

Table 3- Summary of Multicollinearity Test

	Dependent Variable	Independent Variable		
	LGIE	LROE	LTA	LTS
Tolerance		0.411	0.237	0.241
VIF		2.431	4.214	4.153
		LCSRED	LTA	LTS
Tolerance		0.910	0.337	.338
VIF		1.098	2.969	2.961
	LGRE	LROE	LTA	LTS
Tolerance		0.856	.306	.335
VIF		1.169	3.268	2.985
		LCSRED	LTA	LTS
Tolerance		0.638	0.414	0.425
VIF		1.568	2.417	2.356
	LGID	LROE	LTA	LTS
Tolerance		0.578	0.108	0.113
VIF		1.729	9.289	8.817
		LCSRED	LTA	LTS
Tolerance		0.731	0.325	0.293
VIF		1.368	3.078	3.411
	LGWC	LROE	LTA	LTS

Tolerance		0.909	0.191	0.195
VIF		1.101	5.227	5.131
	LGWC	LCSRED	LTA	LTS
Tolerance		0.597	0.245	0.220
VIF		1.675	4.085	4.556

Access to finance is measured by growth in equity (LGIE), growth in retained earnings (LGRE), growth in working capital (LGWC) and growth in debt stock (LGID). Growth is measured in their absolute values and not in percentages, hence, Growth in equity (LGIE) is computed as the current year's equity minus previous year's equity and so on. LROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. LCSRED is Corporate Social Responsibility Expenditure Disclosed.

Source: Annual Report and Financial Statements (2012-2016)

White Test Heteroscedasticity is variance in the error terms for the second and fourth estimations, because their p-values are approximately equal to zero. The rest of the models were not affected by heteroscedasticity.

White test heteroscedasticity was conducted to check for homoscedasticity in the cross-section errors. The results in Table 4 imply that there

Table 4 Summary of Heteroscedasticity Test (White Test)

Dependent Variables	Independent Variable			F-Statistics	P-values
LGIE	LROE	LTA	LTS	1.685990	0.236741*
LGIE	LCSRED	LTA	LTS	3.758840	0.025437
LGRE	LROE	LTA	LTS	0.549498	0.823706*
LGRE	LCSRED	LTA	LTS	4.698164	0.004235
LGID	LROE	LTA	LTS	1.510595	0.221694*
LGID	LCSRED	LTA	LTS	1.596338	0.203344*
LGWC	LROE	LTA	LTS	1.133819	0.381556*
LGWC	LCSRED	LTA	LTS	1.638458	0.174426*

*. Correlation is significant at the 0.05 level (2-tailed).

Access to finance is measured by growth in equity (LGIE), growth in retained earnings (LGRE), growth in working capital (LGWC) and

growth in debt stock (LGID). Growth is measured in their absolute values and not in percentages, hence, Growth in equity (LGIE) is computed as the current year's equity minus previous year's equity and so on. LROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. LCSRED is Corporate Social Responsibility Expenditure Disclosed.

Source: Annual Report and Financial Statements (2012-2016)

Note: The p-values with asterisk are the models that have constant variance in their error terms.

Regression Results

The regression results in Table 5 show that $LROE_{it}$ has a negative and significant relationship with $LGIE_{it}$ at 10% significant level ($\beta = -1.503$). From this result, it is observed that any 1% increase in the profitability of a company on the Ghana Stock Exchange results in 1.50% decrease in access to finance sourced from equity investment. It reveals that companies' reliance on equity as a source of finance diminishes with a rise in profit. This means that companies may

not rely on equity finance to support their economic responsibilities. Rather, the companies pay more dividend to equity-holders when they earn more profit rather than asking equity-holders to supply additional capital. This means that the companies are generally going by earning more profit for their shareholder. This is in line with Friedman's admonishing that companies must concentrate on maximising profits for their shareholder, because that is their social obligation.

Table 5 Regression results

Eq Name:	01	02	03	04	05	06	07	08
Method:	LS	LS	LS LN GR	LS	LS	LS	LS	LS
Dep. Var:	LGIE	LGIE	E	LG RE	LGI D	LGI D	LG WC	LG WC
	-				-		-	
LNROE	1.503		1.80		0.66		1.24	
	*		6		7		4*	

	(0.787)		(0.912)	(0.855)	(0.763)			
LNTA	2.784***	2.368***	0.492	0.858	1.232	1.075	1.080	0.869
	(0.926)	(0.878)	(1.006)	(1.034)	(0.932)	(0.928)	(0.814)	(0.815)
			-	-				
LNTS	-0.257	-0.589	0.886	0.416	0.219	0.021	0.400	0.809
	(0.802)	(0.791)	(0.982)	(0.997)	(0.932)	(0.907)	(0.857)	(0.813)
			-	-				
C	46.465***	33.886***	19.32	3.261	20.035	14.67	4.442	6.242
	(14.312)	(11.988)	(14.701)	(12.52)	(13.479)	(10.870)	(11.548)	(9.010)
			-	-				
LNCSRE		0.378		0.2		0.22		0.2
D		**		24		9		71
		(0.176)		(0.230)		(0.211)		(0.194)
Observations:	55	55	55	55	55	55	55	55
R-squared:	0.272	0.293	0.117	0.061	0.141	0.152	0.282	0.270
F-statistic:	2.509	2.779	0.893	0.438	1.100	1.207	2.642	2.485
Prob(F-stat):	0.028	0.017	0.527	0.873	0.379	0.318	0.022	0.030
Durbin-Watson	1.691	1.678	1.656	1.902	1.921	2.125	2.717	2.642
Hausman Test	0.902	0.948	0.694	0.865	0.328	0.562	0.878	0.797
Residual normality	0.505	0.699	0.117	0.044	0.042	0.050	0.443	0.302

Access to finance is measured by growth in equity (LGIE), growth in retained earnings (LGRE), growth in working capital (LGWC) and growth in debt stock (LGID). Growth is measured in their absolute values and not

in percentages, hence, Growth in equity (LGIE) is computed as the current year's equity minus previous year's equity and so on. LROE is return on equity, defined as net profit after interest and tax divided by ordinary shares' equity. LCSRED is Corporate Social Responsibility Expenditure Disclosed.

***significant at 0.01, **significant at 0.05 and *significant at 0.1.

Source: Annual Report and Financial Statements (2012-2016)

Relationship between economic responsibility ($LROE_{it}$) and access to finance

The results in Table 5 also shows that $LROE_{it}$ has a positive but insignificant relationship with $LGRE_{it}$ at 5% significant level ($\beta = 1.806$). This result is statistically not meaningful, but practically it may mean that companies do not make decisions on social obligation based on retained earning's growth. Growth in retained earnings would rather mean funds are being devoted to positive net present value projects, and it takes time for benefits from investments to materialise into distributions to owners.

The results also show that $LROE_{it}$ has a negative and insignificant relationship with $LGiD_{it}$ at 5% significant level ($\beta = -0.667$). This result is consistent with that of Pandula (2011), who also found a non-significant relationship between firm performance and access to bank finance. The result also supports

the findings of Zarook, Rahman, and Khanam (2013), who found that firm performance (measured by liability to assets ratios, profit and return on assets) has no significance in SME's access to credit. However, it can be deduced that when firms on the GSE make profit, they rely either on their profit or on internally generated funds from retained earnings rather than they would depend on external funds from banks and financial institutions. Thus, the firm may rely on internal equity finance when their performance does not engineer access to external funds.

The results, again, show that $LROE_{it}$ has a negative and significant relationship with $LGWC_{it}$ at 10% significant level ($\beta = -1.244$). Thus, companies on GSE resort to internally generated funds when they are performing well rather than accumulating capital through current liabilities (such as trade creditors and short-term bank overdraft) to finance short-term operations.

Relationship between discretionary responsibility (LCRSED_{it}) and access to finance

The results further show that LCSRED_{it} has a positive and significant relationship with LGiE_{it} at 5% significant level ($\beta = 0.378$). This means companies which are engaged in philanthropy attract more equity investments in Ghana. This finding is in line with that of Lee, Kim and Kwon (2017), which found that Korean firms that do well in CSR attract foreign investments. A company's philanthropic activities, after establishing reputation for a company, all other things being equal, attract financial resources from investors. Firms that are proactive in CSR engagements can send signals to the credit market that they expect enough liquidity that can assist them not only to fund CSR activities, but also to honour their debt obligations when they fall due. This increases their credibility and reduces external finance constraints. We did not find any meaningful evidence that companies' engagement in philanthropic activities enables them to attract bank finance and short-term finance from other creditors.

Results on the control variable show that the size of companies in Ghana, measured by

the natural log of total asset, has strong positive effect on access to finance, measured by growth in equity. This means that large firms attract a lot of equity capital in Ghana. This may come about because the size of the firm usually increases with age of the firm, and as firms grow, they gain reputation. The increase in reputation of large firm may be responsible for their attraction of equity investment. Appendix 1 contains the results of the Pooled Least Squares estimations, which are similar to results in Table 5 in most respects.

Diagnostic Tests

We also performed additional diagnostic tests in order to validate the results in Table 5. The third panel in Table 5 shows the results of these tests. First, the probability values of the F-statistics ($p < 0.05$) imply that the estimates in equations 01, 02, 07 and 08 provide joint explanatory power to access to finance. We, therefore, relied on these estimates in delineating the impact of CSR on companies' access to finance in Ghana. Similarly, the relatively optimal level of the Durbin Watson statistic (optimal level of the test should be around 2.0) shows that autocorrelation is not a problem. The first lags of the dependent variables may not have

significant impact on the results in Table 5.

Furthermore, the estimates in the equations 01 through to 08 were done through random and fixed effects. This was done to determine that the unobserved cross-sectional and time effect embedded in the innovation term in equation 2 do not correlate with the error term. To do this, we used the Hausman's cross-sectional dependence test. The test is based on the null hypothesis that the unobserved cross-sections correlate with the residuals emerging from the estimations. The large probability

values ($p\text{-value} > 0.05$) imply that random cross-sectional effect estimates are preferred to fixed effect estimates. Accordingly, the estimates in Table 5 are based on random effect estimates. Finally, the probability values ($p\text{-value} > 0.05$) of the Jarque-Bera Normality tests show that the residuals are normally distributed with approximately zero averages and constant variances. The diagnostic tests, generally, show that the results in this study are efficient and consistent. Table 6 shows a summary of the relationship between access to finance and economic and discretionary responsibilities.

Table 6 Summary of Relationship between GiE_{it} , GRE_{it} , GiD_{it} , GWC_{it} , and ROE_{it} and $CSRED_{it}$

Dependent Variable	Independent Variable	Relationship	Significance
LGIE	LROE	Negative	Yes
	LCSRED	Positive	Yes
LGRE	LROE	Positive	No
	LCSRED	Negative	No
LGID	LROE	Negative	No
	LCSRED	Positive	No
LGWC	LROE	Negative	Yes

LCSRED

Positive

No

Source: Annual Report and Financial Statements (2012-2016)

Conclusion

This paper contributes to the discourses on CSR-access to finance nexus by insisting that companies that engage in philanthropic activities attract more equity capital from investors. The findings support both the instrumental and stakeholder theories of corporate social responsibility, that engagement in CSR can engineer some beneficial exchanges for companies and their environment. We also found that, by engaging in CSR activities, companies do not actually neglect their core obligation of earning profit for their shareholders. Here, in the case of companies on the GSE, the more they do philanthropy, the more the growth in ordinary shareholders' equity balance. In the same token, the more companies engage in economic responsibility, the more they give more money to their shareholders or the lesser they require extra capital from their shareholders. This is traceable to the shareholder wealth maximisation theory, which informs companies to pay attention to maximising the wealth of shareholders and affirms that a

firm will achieve the optimum gain from CSR if activities are towards achieving the firm's mission. Based on the findings of the study, we recommend that where a company seeks to capitalise on philanthropy to win foreign investments and attain competitive advantage, it should fit into the company's missions. Disclosure of CSR information can also engineer goodwill which, in turn, can enhance the companies' chances of accessing external credits.

References

- Adams, M., & Hardwick, P. (1998). An analysis of corporate donations: United Kingdom evidence. *Journal of Management Studies*, 35, 641-654.
- Albuquerque, R., & Zhang, C. (2019). Corporate social responsibility and firm risk: Theory and empirical evidence. *Management Science*, 4451-4469.
- Allen, F., Chakrabarti, R., De, S., Qian, J. Q., & Qian, M. (2012). Financing firms in India. *Journal of Financial Intermediation*, 21(3), 409-445.
- Alvarez, I. G., Lorenzo, J. M. P., Dominguez, L. R., & Sanchez, I. M. G. (2010). Are social and environmental practices a marketing tool? Empirical evidence for the biggest European companies. *Management Decision*, 48(10), 1440-1455. Retrieved from <http://www.emeraldinsight.com/doi/abs/10.1108/0251741011090261>.
- Ameyibor, J. (2015). *Corporate social responsibilities and performance of firms listed on the Ghana Stock Exchange*. Unpublished master's thesis. University of Cape Coast. Cape Coast, Ghana.
- Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2010). Formal versus informal finance: Evidence from China. *Review of Financial Studies*, 23(8), 3048-3097. Retrieved from <https://doi.org/10.1093/rfs/hhq030>
- Bhandari, A., & Javakhadze, D. (2017). Corporate social responsibility and capital allocation efficiency. *Journal of Corporate Finance*, 43(1), 354-377.
- Beck, T., Demirguc-Kunt, A., Laeven, L., & Levine, R. (2005). Financial and legal constraints to growth: Does firm size matter? *Journal of*

- Finance*, 60(1), 137-177.
Retrieved from
<https://doi.org/10.1111/j.1540-6261.2005.00727.x>
- Beck, T.; Demirgüç-Kunt, A., Laeven, L. & Maksimovic, V. (2006). The determinants of financing obstacles. *Journal of International Money and Finance*, 25(6), 932–952.
Retrieved from
<http://dx.doi.org/10.1016/j.jimonfin.2006.07.005>.
- Canepa, A. & Stoneman, P. (2002). Financial constraints on innovation: a European cross-country study, University of Warwick. *EIFC - Technology and Finance Working Papers*, 2(11), 41.
- Carroll, A. B. (2016). Carroll's pyramid of CSR: taking another look. *Carroll International Journal of Corporate Social Responsibility*, 1(3).
Retrieved from
<http://doi.org/10.1186/s40991-016-0004-6>
- Chen, M., & Guariglia, A. (2013). Internal financial constraints and firm productivity in China: Do liquidity and export behavior make a difference? *Journal of Comparative Economics* 41(4), 1123-1140.
Retrieved from
<http://dx.doi.org/10.2139/ssrn.1863864>
- Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, 35, 1-23.
doi:10.1002/smj.2131.
- Cheng, B., Ioannou, I., & Serafeim, G. (2013). Corporate social responsibility and access to finance. *Strategic Management Journal*, 35(1), 1 – 23.
Retrieved from
<https://doi.org/10.1002/smj.2131>.
- Cincera, M. (2003). Financing constraints, fixed capital and R&D investment decisions of Belgian

- Firms' Investment and Finance Decisions: Theory and empirical methodology, (Ed.) P. Butzen and C. Fuss, Edwar Elgar, Cheltenham, UK. 129-147.
- Czarnitzki, D., & Hottenrott, H. (2011). R&D investment and financing constraints of small and medium-sized firms. *Small Business Economics*, 36(1), 65–83. Retrieved from doi:10.1007/s11187-009-9189-3.
- Drakos, K., & Giannakopoulos, N. (2011). On the determinants of credit rationing: Firm-level evidence from transition countries. *Journal of International Money and Finance*, 30(8), 1773–1790. Retrieved from <http://dx.doi.org/10.1016/j.jimonfin.2011.09.004>.
- Fombrun, C. J. (1996). *Reputation: Realizing value from the corporate image*. Boston, United State: Harvard Business School Press.
- Fombrun, C. J., Gardberg, N. A., & Barnett, M. L. (2000). Opportunity platforms and safety nets: Corporate citizenship and reputational risk. *Business and Society Review*, 105(1), 85-106.
- Freeman, R. E., Harrison, J. S., & Wicks, A. C. (2007). *Managing for stakeholders: survival, reputation, and success*. New Haven, United States: Yale University Press.
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., De Colle, S. (2010). *Stakeholder theory: the state of the art*. New York, United States: Cambridge University Press.
- Friedman, M. (1970). A Friedman doctrine-the social responsibility of business is to increase its profit. *New*, 6(33), 122-124.
- Garcia-Sanchez, I.-M., Hussain, N., Martinez-Ferrero, J., & Ruiz-Barbadillo, E.

- (2019). Impact of disclosure and assurance quality of corporate sustainability reports on access to finance. *Corporate Social Responsibility and Environmental Management*, 1-17. doi:10.1002/csr.1724.
- Garriga, E., & Mele, D. (2004). Corporate social responsibility theories: Mapping the territory. *Journal of Business Ethics*, 53, 51-71. Retrieved from <https://link.springer.com/article/10.1023/B:BUSI.000039399.90587.34>
- Giannarakis, G., & Theotokas, I. (2011). The effect of financial crisis in corporate social responsibility performance. *International Journal of Marketing Studies*, 3(1), 2 – 10. Retrieved from <http://www.ccsenet.org/journal/index.php/ijms/article/viewFile/9268/6833>
- Girma, S., & Vencappa, D. (2015). Financing sources and firm level productivity growth: Evidence from Indian manufacturing. *Journal of Productivity Analysis*. 44(3), 283-292.
- Gorodnichenko, Y., & Schnitzer, M. (2013). Financial constraints and innovation: Why poor countries don't catch up. *Journal of the European Economic Association*. 11 (5), 1115– 1152. Retrieved from <https://doi.org/10.1111/jea.12033>.
- Greening, D. W., & Turban, D. B. (2000). Corporate social performance as a competitive advantage in attracting quality workforce. *Business & Society*. 39(3), 254-280. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/000765030003900302>.
- Jensen, M., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of Political Economics*, 98, 225-264.

- Jin, J. Y., Kanagaretnam, K., Lobo, G. J., & Mathieu, R. (2017). Social capital and bank stability. *Journal of Financial Stability*. doi:[dx.doi.org/10.1016/j.jfs.2017.08.001](https://doi.org/10.1016/j.jfs.2017.08.001).
- Lamont, O., Polk, C., & Saa-Requejo, J. (2001). Financial constraints and stock returns. *Review of Financial Studies*, 14(2), 529-554. Retrieved from <https://doi.org/10.1093/rfs/14.2.529>.
- Lee, J., Kim, S. J., & Kwon, I. (2017). Corporate social responsibility as a strategic means to attract foreign investment: Evidence from Korea. *Sustainability*, 9, 2121. Retrieved from <https://doi.org/10.3390/s9112121>
- Lee, N; Sameen, H. & Cowling, M. (2015). Access to finance for innovative SMEs since the financial crisis. *Research Policy*, 44(2), 370–380. Retrieved from <http://dx.doi.org/10.1016/j.respol.2014.09.008>.
- Lins, K. V., Servaes, H., & Tamayo, A. (2017). Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *The Journal of Finance*, 122(4), 1785-1825.
- Mancusi, M. L., & Vezzulli, A. (2014). R&D and Credit Rationing in SMEs. *Economic Inquiry*. 52(3), 1153–1172. Retrieved from <https://doi.org/10.1111/ein.12080>
- Marfo, E.O., Chen, L., & Xuhua, H. (2015). The industrial differences of corporate social responsibility (CSR) reporting: An empirical study of listed firms in Ghana. *International Journal of Academic Research in Business and Social Sciences*, 5(8). Retrieved from http://hrmars.com/hrmars_papers/The_Industrial_Differences_of_Corporat

- e Social Responsibility (CSR) Reporting An Empirical Study of Listed Firms in Ghana.pdf
- Margolis, J.D., Elfenbein, H.A., & Walsh, J.P. (2009). Does it pay to be good ... and does it matter? A meta-analysis of the relationship between corporate social and financial performance. Retrieved from <http://dx.doi.org/10.2139/ssrn.1866371>
- Matten, D., Crane, A., & Chapple, W. (2003). Behind the mask: Revealing the true face of corporate citizenship. *Journal of Business Ethics*, 45(1-2), 109-120.
- Mittal, R. K., Sinha, N., & Singh, A. (2008). An analysis of linkage between economic value added and corporate social responsibility. *Management Decision*, 46(9), 1437-1443. Retrieved from <https://www.emeraldinsight.com/doi/full/10.1108/00251740810912037>
- Moore, W., Craigwell, R., & Maxwell, C. (2005). Financing preferences and firm growth. *Savings and Development*, 29(1), 5-20.
- Moura-Leite, R.C., & Padgett, R.C. (2011). Historical background of corporate social responsibility. *Social Responsibility Journal*, 7(4), 528-539. Retrieved from <https://doi.org/10.1108/1747111111117511>.
- Pandula, G. (2011). An empirical investigation of small and medium enterprises access to finance: The case of an emerging economy. *Proceedings of the ASBBS*, 18(1), 255-273. Retrieved from http://researchbank.acu.edu.au/cgi/viewcontent.cgi?article=1865&context=flb_pub
- Rahaman, M. M. (2011). Access to financing and firm growth. *Journal of Banking and Finance*, 35(3), 709-723.
- Rajan, R., & Zingales, L. (1998). Financial dependence and

- growth. *American Economic Review*, 88(3), 559-586.
- Sen, S., & Bhattacharya, C. B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, 38(2), 225-243. Retrieved from <https://doi.org/10.1509/jmkr.38.2.225.18838>.
- Turban, D. B., & Greening, D. W. (1997). Corporate social performance and organizational attractiveness to prospective employees. *The Academy of Management Journal*, 40(3), 658-672.
- Waddock, S. A., & Graves, S. B. (1997). The corporate social performance-financial performance link. *Strategic Management Journal*, 18(4), 303-319.
- Wang, H., & Qian C. (2011). Corporate philanthropy and corporate financial performance: The roles of stakeholder response and political access. *Academy of Management Journal*, 54(6), 1159-1181. Retrieved from <http://dx.doi.org/10.5465/amj.2009.0548>.
- Zarook, T., Rahman, M. M., & Khanam, R. (2013). Does the financial performance matter in accessing to finance for Libya's SMEs? *International Journal of Economics and Finance*, 5(6), 11-19. Retrieved from <https://core.ac.uk/download/pdf/11050516.pdf>.

Appendix 1: Regression Results from the Pooled Least Square Estimations

Eq Name:	01	02	03	04	05	06	07	08
Method:	LS	LS	LS	LS	LS	LS	LS	LS
Dep. Var:	LGIE	LGIE	LGR E	LG RE	LGI D	LGI D	LG WC	LG WC
LNROE	-1.403* * (0.608)		1.57 0** (0.750)		0.93 7 (0.751)		1.35 8* (0.781)	
LNTA	2.425* ** (0.642)	2.210* ** (0.637)	0.45 0 (0.791)	0.62 8 (0.817)	1.10 1 (0.793)	0.94 6 (0.786)	0.69 9 (0.824)	0.49 3 (0.822)
LNTS	0.072 (0.676)	-0.428 (0.637)	0.78 4 (0.833)	0.22 8 (0.817)	0.48 5 (0.835)	0.15 (0.785)	0.12 3 (0.868)	0.36 1 (0.822)
C	45.316 *** (9.180)	33.668 *** (7.149)	17.9 77 (11.317)	3.95 8 (9.167)	22.7 12 (11.333)	15.0 89 (8.819)	6.75 6 (11.788)	4.57 4 (9.229)
LNCSR ED		0.373* * (0.151)		0.18 5 (0.194)		0.28 8 (0.186)		0.34 9 (0.195)
Observations:	55	55	55	55	55	55	55	55
R-squared:	0.427	0.435	0.09	0.03	0.15	0.16	0.06	0.07
F-statistic:	12.678	13.091	4	7	3	7	2	0

Durbin-			1.67	1.64	1.97	1.97	2.51	2.47
Watson	1.138	1.197	6	2	1	7	3	2

***significant at 0.01, **significant at 0.05 and *significant at 0.1.

Source: Annual Report and Financial Statements (2012-2016)