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Corporate Social Responsibility and Financial Performance of Banks in the United States

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Abstract

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Dissertation Submitted in Partial Fulfillment

Of the Requirements for the Degree of

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Abstract

Corporate social responsibility has evolved as a business strategy, but the business worth of voluntary social conduct has not been well understood. The contradictory research findings mean that social performance is not maximized, which constrains economic growth and sustainable development. Grounded by stakeholder theory, this correlational study was aimed at examining the effect of social responsibility factors on the market-based Fama-French cost of capital. Within a sample of 71 United States banks, the publicly available ethical ratings, financial data, and stock market data were analyzed using multiple regression models. Contrary to the positive effect of social conduct on financial performance common in the literature, this study revealed no significant effect of social factors on the accounting returns, and, consequently, the shareholders perceived the social activities as risky and therefore demanded higher returns. The study also showed that governance, diversity, and employee relation were positively related to accounting returns while product and community factors were negatively related to profits. The implied higher cost of raising equity finance following engagement in social activities is a lesson for corporate managers to exercise caution in their social conduct and carry the investors along. Such inclusive policy could help to minimize investor bias and moderate their consequential adverse reactions to well-intentioned corporate actions. This research contributes to positive social change by assisting the bank managers, directors, investors, regulators, and government in improving the discharge of their respective roles to ensure optimal allocation of resources to competing social activities in a manner that may maximize performance and improve the overall stakeholder wellbeing.

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Dedication

First of all, this doctoral dissertation is dedicated to God Almighty for inspiring the commencement of the PhD degree program and also for enabling its successful completion. As the first PhD degree in Gbadamosi family, I dedicate this capstone dissertation to the entire Gbadamosi family of Abeokuta, Ogun State led by my father, Late Chief Raimi Gbadamosi, and my mother, Mrs. Silfat Gbadamosi, for empowering me to pursue my education to the highest level. The dissertation is also dedicated to my wife, Obiageri, who not only provided the support I needed to successfully complete this program, but also endured my prolonged absence from home most of the time in a bid to work on class assignments and write this dissertation. I equally dedicate this doctoral dissertation to my children Adetutu, Oluwafemi, Ayomidele, Abiodun, Oluwatobi, Olusola, and Ademola for their encouragement each time the going on this program gets tough.

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Chapter 1: Introduction to the Study

Introduction

The 21st century ushered in misfortune for investors, employees, consumers, and other sympathizers of business corporations. This followed the collapse of many corporate giants like Tyco, Enron, Adelphi, WorldCom, Global Crossing, and Merrill Lynch, among others in the United States and Swissair, Metallgesellshaft, Parmalat, and Vivendi in Europe, due to managerial opportunism and large scale accounting fraud (Dinsmore, 2014). Similarly, the world economy is yet to recover fully from the ravaging effects of the global economic crisis that occurred in 2008. To a large extent the social consequences of these crises have reduced consumer confidence in business enterprises, thus creating reputational issue for organizations and limiting their competitiveness and prosperity. In addition, from the industrial age spanning the 18th to 19th century to the turn of the 21st century, businesses showed a lack of social responsibility and sustainability (Adeleke, 2014). They were portrayed as depleting natural resources, not mindful of the footprint of their activities on the earth's capacity, polluting the environment and threatening the ozone layer (Stanley, 2011). These developments have created a desire for increased oversight of corporate activities and have also attracted public attention to the social conduct of business organizations (Idemudia, 2011). In response to the challenging business environment arising from these developments, business firms embarked on aggressive social responsibility activities and other strategies that are capable of improving their reputation and restoring stakeholder confidence (Servaes & Tamayo, 2013). Many of these acts have been perceived to be greenwashing,

a distorted marketing strategy (Sun & Cui, 2014). This creates a challenge for understanding the motive behind corporate social conducts.

Recognizing the importance of sustainable business conduct, the European Commission (EC) formed the Europe 2020 strategy with a commitment to promote corporate social responsibility (CSR) by businesses in the region. In the Commission's view, CSR is a key source of competitive advantage and has potential to induce innovation, capacity building, positive customer relationship, cost effectiveness, human resource management, and effective risk management (EC, 2011). The Organisation for Economic Cooperation and Development (OECD) equally advocates for the observance of social and environmental standards by business corporations. OECD (2008) emphasized social responsibility as a central theme of good governance of enterprises, acknowledging the importance of ensuring the cooperation of all stakeholders. Social responsibility activities of individual corporations has been observed and documented in the literature (Carol, 1991). These firms showcase in their websites and annual reports their activities on and commitment to social responsibility (Adeleke, 2014). Regional and national bodies have sprung up to monitor social responsibility of enterprises. One of these is the Social Enterprise Report and Awards (SERA) that annually presents awards to firms with distinguished and exemplary corporate social responsibility (CSR) (Adeleke) practices. Firms regularly expend or invest money and other resources in CSR (Sun & Cui, 2014). As a way of integrating CSR in their corporate strategies, some firms now have a senior officer at the directorate level whose responsibility is to manage CSR (Soana, 2011). The enormity of the resources firms expend in prosecuting CSR projects

to improve their fortune therefore deserves critical scrutiny, which was undertaken in this study.

In this chapter, I explored the background of the study with a definitive statement of the problem and purpose of the study. The statements of the research questions and hypotheses followed this exploration. The conceptual framework guiding the study was presented, supported by the assumptions, scope, limitations and delimitations of the study. The significance of the study was offered with insights on how the study could lead to the creation of social change to specific segments of the society. The chapter was then concluded with the definition of certain terms that have contextual meanings in the study.

Background of the Study

Businesses seek to create wealth for their owners through product or service offerings that satisfy effective demand (Fomukong, 2014). Since the 1950s, scholarly efforts made to determine whether responsible business social conduct can significantly induce profit have yielded unclear results till date (Orlitzky, 2013). The intensity of CSR practices has been adequately captured in the empirical literature: growing evidence that socially responsible investments outperform others (Nofsinger & Varma, 2014); increasing consumer demand for green, organic products (Borgers & Pownall, 2014); business risk being affected by various dimensions of CSR (Bouslah, Kryzanowski, & M'Zali, 2013); and quality of financial reporting being dependent on the business CSR attitude (Grougiou, Leventis, Dedoulis, & Owusu-Ansah, 2014). However, in their recent and latest study, UN Global Impact and Accenture (2013) found that the interest in

business sustainability practices, including CSR activities, is currently waning. The observed subsidence is attributed to the twin factors of the obscure CSR-business value link and the perceived incompatibility of the traditional measures of business performance with socially responsible behavior (Orlitzky, 2013). It remains a challenge for a business community to identify, quantify, and unlock the business value of responsible social conduct, limiting effective allocation of corporate resources.

Studies that have attempted to find out if CSR helps in creating value or whether it destroys business value can be categorized based on their outcomes – positive relationship, negative relationship, or no significant relationship (Fomukong, 2014). The studies in which positive relation between CSR and financial performance (FP) were found dominate the empirical literature (Chen & Wang, 2011; Kasim, 2012; Lee, Faff, & Langfield-Smith, 2009; Muise, 2009; Mustafa, Othman, & Perumal, 2012; Weshah, Dahiyat, Awwad, & Hajjat, 2012). A negative CSR-FP relationship was found by Becchetti & Ciciretti (2009), Lioui & Sharma (2012), Rahmawati & Dianita (2011), and Yang, Lin, and Chang (2010) while it was in only very few studies that no significant relation was found between CSR and FP (Chih, Chih, & Chen, 2010; Dinsmore, 2014; Linthicum, Reitenga, & Sanchez, 2010; Soana, 2011). The divergence of findings creates lacuna in the knowledge of the potential value of social conduct of business.

The inconsistent findings on the issue can be explained by the divergent conceptual philosophies underlying the individual studies. First, CSR has been both narrowly and broadly conceived by researchers, reflecting the essentially contested nature of the construct (Okoye, 2009; Saeidi, Sofian, Saeidi, Saeidi, & Saeidi, 2014).

Researchers have treated CSR in various ways: as the information disclosed to the stakeholders on the business social conduct (Dhaliwal, Li, Tsang, & Yang, 2014; Rahmawati & Dianita, 2011; Sobhani, Amran, & Zainudden, 2012; Yang et al. 2010); as the perception of the various stakeholders of the business social conduct (Akanbi & Ofoegbu, 2012; Busch & Hoffmann, 2011; Chen & Wang, 2011; Christmann, 2000; Mustafa et al. 2012; Oke, 2011); as corporate reputation (Laan, Ees, & Witteloostuijn, 2008; Linthicum et al. 2010; Maden, Arikan, Telci, & Kantur, 2012); as socially responsible investment and charitable donations (Borgers & Pownall, 2014; Nofsinger & Varma, 2014); and as independent multidimensional ethical rating of business (Baird, Geylani, & Roberts, 2012; Callan & Thomas, 2009; Choi, Kwak, & Choe, 2010; Makni, Francoeur, & Bellacance, 2009; Soana, 2011). While most researchers viewed CSR from the perspective of ethical rating indices provided by various independent bodies such as KLD and EIRIS, the CSR was also operationalized differently. A large number of studies treated the CSR ethical ratings as aggregated measures (Ghoul, Guedhami, Kwok, & Mishra, 2011; Goss & Roberts, 2011; Linthicum et al. 2010; Soana, 2011; Torres, Bijmolt, Tribo, & Verhoef, 2012) while only a few examined the individual components of social conduct (Baird et al.; Inoue & Lee, 2011; Lioui & Sharma, 2012; Makni et al.). Second, financial performance was equally divergently treated by researchers, with scope covering the traditional accounting measures, market based measures, and cost of capital. The traditional accounting performance measures used included both absolute returns/earnings/assets together with their growth (Arnold & Valentine, 2013; Becchetti, Ciciretti, & Giovannelli, 2013; Ghoul et al. 2011; Wu & Shen, 2013) and constructed

earnings based ratios such as return on asset (ROA), return on equity (ROE), return on investment (ROI), and earnings per share (EPS) (Callan & Thomas, 2009; Makni et al. 2009; Yang at al. 2010). Other accounting measures found in the literature to address the problem are loan contract terms (Goss & Roberts, 2011), brand equity (Torres et al.), cost-to-income ratio (Soana, 2011), and absolute forecast error on EPS (Becchetti et al.). The FP was also viewed from market perspectives such as stock price values and stock price related ratios (Baird et al.; Busch & Hoffmann, 2011; Callan & Thomas, 2009; Choi et al.; Deng, Kang, & Low, 2013; Inoue & Lee, 2011; Jo & Harjoto, 2011; Kang, Lee, & Huh, 2010; Lioui & Sharma, 2012; Servaes & Tamayo, 2013; Soana, 2011). Cost of capital was scantly treated by researchers as a measure of financial performance (Campbell, Dhaliwal, & Schwartz, 2012; Ghoul et al.; Goss & Roberts, 2011). These variations partly explain the inconsistent research outcome.

Apart from the divergent ways in which CSR and FP were treated by researchers, the empirical literature also suffers from some fundamental shortcomings which further contribute to the examination of CSR-financial performance relation. First, even though most studies claimed to utilize stakeholder theory, they examined multiple industries (Becchetti et al. 2013; Linthicum et al. 2010; Lioui & Sharma, 2012), multiple countries (Busch & Hoffmann; 2011; Chih et al. 2010; Wu & Shen, 2013), and both multiple industries and multiple countries (Becchetti, Ciciretti, Hassan, & Kobeissi, 2012; Jo & Harjoto, 2011; Lee et al. 2009; Torres et al. 2012). Such studies ignored the fact that stakeholders' attributes such as composition, perceptions, interests, preferences are contextually dependent with tendency to vary by industrial and national contexts (Baird

et al. 2012; Soana, 2011) and are also dynamic with possibility of changing over time (Chen & Delmas, 2011). The few studies that examined banking industry did not control for unique banking risk like loan deposit ratio (LDR), on which Wu and Shen (2013) emphasized. Second, most prior studies paid little attention to specificity consistent with stakeholder theory, as many studies adopted aggregated/ omnibus CSR measures and failed to decompose the measures into various components (Callan & Thomas, 2009; Choi et al. 2010; Deng et al. 2013; Jo & Harjoto, 2011; Wu & Shen, 2013). This led to the problem of likely imperfect correlation of the individual CSR components (Moura-Leite, Padgett, & Galan, 2014; Scholtens, 2008) and inaccurate measures (Goss & Roberts, 2011). Such studies failed to recognize the heterogeneous nature of stakeholders' objectives and expectations. Third, even though a handful of studies have examined whether CSR is priced by capital market (Becchetti et al.; Ghoul et al. 2011), the examination of the relationship between individual components of CSR and the business cost of capital as a measure of market-based financial performance was seldom examined. Fourth, a large number of studies on the subject are dated, which limits their relevance to current practice. Finally, a number of studies that utilized ordinary least squares did not attempt to test the time order preference by lagging the variables included in the regression models, and as a result such studies did not provide explanation of the causal influence between CSR and FP.

Consequent upon the above limitations corporate managers and decision makers currently lack information that could guide them in the effective allocation of corporate resources to social conduct. This lack of knowledge poses greater risk for corporations

and explains the recent skepticism expressed by most of the world business leaders who questioned the sustainability of their social strategies for business value creation (UN Global Compact & Accenture, 2013). According to these authors, the lack of knowledge of the business worth of CSR is beginning to dampen the motivation of business leaders. It is also capable of undermining the global, regional and national efforts being made by independent bodies to address social responsibility and irresponsibility issues in business (Adeleke, 2014). The limited knowledge of CSR-business value linkage calls for studies that address the deficiencies in the prior studies, with focus on areas that are currently underexamined. Such studies will improve the understanding of the CSR and its strategic value to the business community. It will also assist in improving risk management and decision making by business managers as well as their oversight providers. In addressing the CSR-business value linkage, a dominant issue relates to the definitional clarification of the CSR concept as well as the tendency to manipulate financial performance measures.

Defining the CSR concept has been difficult, and this partly accounts for the divergence of its application in practice. Small and medium-sized firms adopt an informal process of CSR while large firms adopt a more formalized approach to managing their social conduct. EC (2011) provided an insight into what constitutes CSR by defining the concept as the responsibility of business firms to account for their footprints in the society. To effectively discharge this responsibility, the Commission averred that enterprises must respect the applicable legislations, regulations and collective agreements

with their social partners (EC, 2011). By collaborating with their stakeholders, firms may be able to create shared values and mitigate the impact of their footprints.

Although the financial performance suffers little or no definitional challenge, it is prone to manipulation by business managers and their collaborators (Jiao, 2010; Jensen, 2010). This gives rise to such practices as window dressing of accounts, earnings management, and financial engineering all of which are fraudulent acts (Bona, 2012). The fact that financial reporting regulation and legislations made it mandatory to subject accounting numbers to independent review provides little respite for preventing corporate misdemeanor (Jensen, 2010). Studies that rely on the published accounting numbers have limited practical use, as the integrity of the numbers remains an issue to contend with (Soana, 2011). This explains why market-based financial performance measures are considered to be more reliable than the accounting-based measures (Hajiha & Sarfaraz, 2013). It is important that a study of CSR-FP linkage should complement the traditional accounting measures of performance with market-focused measures such as the market-determined cost of financing. In this study, I examined the impact of the CSR on both the traditional accounting measures of performance and the market-determined cost of financing in the context of banking business.

Statement of the Problem

Two in three global CEO's believe that business sector is not doing enough to address sustainability issues (UN Global Compact & Accenture, 2013). Though businesses were pressured into improving their social performance (Montiel & Delgado-Ceballos, 2014), still it is not clear whether business commitment to CSR creates or

destroys value (Orlitzky, 2013). The problem under study was that the business worth of voluntary social conduct has not been identified or understood. The specific problem addressed was the lack of knowledge about whether CSR could enhance business performance (Hajiha & Sarfaraz, 2013).

Due to methodological divergences (Gregory, Tharyan, & Whittaker, 2014), 6 decades of research into the business value of social conduct produced inconclusive findings (Grougiou et al. 2014). This correlational study is focused on examining the effects of the CSR factors of the US banks on their accounting returns and cost of capital as a contribution to the ongoing efforts at bridging the inadequate knowledge. The potential improvement in managerial understanding could aid sustainable resource allocation and value optimization to stakeholders.

Purpose of the Study

The purpose of my correlational study was to test the Freeman's (1984) stakeholder theory by relating the CSR components to the financial performance measures for large banks in the United States. Guided by the rating methodology of MSCI KLD Research and Analytics, CSR components of interest were community, governance, diversity, product, and employee relations. Financial performance was defined generally as the traditional accounting as well as the market based measures, and the intervening variables comprising size, risk, growth, preceding year performance, and management preference were statistically controlled in the study. Archival data on the CSR ratings, the financial data, and the stock market data of the selected banks in the United States were collected and analyzed using multiple regression models. The

outcome of the study might help to improve the managerial understanding of how to optimally allocate scarce corporate resources to those social activities with potential to impact the bottom line.

Research Questions and Hypotheses

In this study, I examined if the CSR components could predict the accounting performance and the market-determined cost of capital of banks in the United States. This two-part study reflects the bidimensional nature of the FP measures comprising the accounting measures and the market-focused measures. The goal of the study was to answer the two research questions and to test the associated hypotheses. These questions were necessitated partly by the empirical dominance of the aggregated CSR scores and the inadequate focus on the individual CSR components. Aggregating the CSR scores is at variance with the stakeholder theory and was inappropriate for this study. The theory is that the views of the stakeholders are varied as well as their needs, aspirations, and expectations. Compressing those needs in empirical studies is capable of inducing misleading conclusion about the stakeholder behavior. The prevalent practice of aggregating the CSR scores in the empirical literature partially explains the observed inconsistent and inconclusive findings of the prior studies.

Research Question 1

To what extent can the individual CSR components predict the bank accounting performance, controlling for the effects of the bank unique and management preference factors? Empirically, such firm unique factors known to have significant influence on

financial performance of firm are size, banking risk, growth, and prior financial performance as well as management preference factor in the form of capital expenditure (Chen & Wang, 2011). Controlling for these intervening variables is common in the literature (Jo & Harjoto, 2011). The answer to this question would complement the prior studies and provide more complete and more relevant knowledge of the social issue.

Research Question 2

To what extent can the individual CSR components of banks help in predicting the banks' cost of capital? The compelling need for this question was the observed gap in the literature regarding the limited emphasis on the market-based cost of capital as a measure of the business performance. Measuring business performance from the financing cost perspective not only addresses the concerns expressed by the prior researchers like Ghoul et al. (2011), Goss & Roberts (2011), and Hong & Kacperczyk (2009), it also broadens the knowledge of the CSR-business value link.

Hypotheses

In order to study the two research questions proposed, I tested two hypotheses: Hypothesis 1 and Hypothesis 2. The aim of the Hypothesis 1 was to examine the effect of the individual CSR components on the accounting performance of banks while the Hypothesis 2 was aimed at examining the impact of the individual CSR components on the cost of capital of banks in the United States.

Hypotheses 1: CSR on accounting performance. The null hypothesis and the alternative hypothesis on the extent of predictability of accounting financial performance by the individual CSR factors were specified as:

$H_0$1: The individual CSR components of banks cannot predict the banks' accounting performance after controlling for the effects of firm unique and management preference factors.

H_a1: The individual CSR components of banks can predict the banks' accounting performance after controlling for the effects of firm unique and management preference factors.

CSR has been operationalized in diverse ways in the literature, but the trend of the current research suggests a bias toward the multidimensional ratings. Although many prior studies have used the composite multidimensional rating scores of the CSR, such an approach did not consider the possibility of correlation between the individual CSR components. It was then expedient to adopt the individual CSR components in this study. Many rating agencies do publish the qualitative scores on social responsibility of different organizations including banks, one of which is Kinder, Lydenberg, and Domini Research and Analytics (KLD). As the most widely used in the current literature, KLD measures each firm's reputation using seven qualitative indicators: community, corporate governance, diversity, employee relation, product, human right, and environment (Laan et al. 2008). Though KLD provides rating on each of the 13 indicators of social responsibility for over 3,000 large American companies, this study is focused on testing only five (community, corporate governance, diversity, employee relation, and product),

because KLD ratings were not available for the other factors on banks. The rating scores for each of these components were included in the regression model to test the above hypotheses. KLD provides the largest dataset for the CSR studies and has been found to have passed several tests of construct validity (Laan et al.), though it is also considered to be imperfect (Doh, Howton, Howton, & Siegel, 2010). The accounting performance measures commonly used in the empirical literature revolve around ROA, ROE, and ROI. However in view of the specialized setting of the study being banking, market-to-book (MTB) ratio and earnings before interest, depreciation and amortization (EBITDA) margin were tested in the multivariate regression models designed for the hypotheses. The relevant intervening variables were controlled in the model. The financial ratios and other relevant information about each bank were obtained from Bankscope database.

Multivariate regression analysis was employed to test both hypotheses, using ordinary least squares (OLS) model. For this purpose, the KLD multidimensional CSR ratings of each bank on each component represented the independent variables while each measure of accounting returns (MTB and EBITDA margin) represented the dependent variable. KLD database provided the dimensional CSR measures for each CSR component.

The control variables comprised the firm unique factors of size, banking risk, growth, and past FP and management preference factor of capital expenditure. In terms of operationalization, the size of the bank was taken as the volume of the total assets, the banking risk was operationalized as the leverage ratio, the growth was the asset growth, the past financial performance was the change in FP between time *t-1* and time *t*, and

management preference was taken as the ratio of capital expenditure to total assets. Natural logarithms of total assets value was taken in order to standardize the values. I applied the regression model in Equation 1 to examine Research Question 1 and test Hypothesis 1.

$$FP_{it} = \beta_0 + \beta_1 CSR_{jit-1} + \beta_2 LogTotAsset_t + \beta_3 Lev_t + \beta_4 AssetGrowth + \beta_5 LogFP_{it-1} + \beta 6 CapexR + \varepsilon_{it} \quad (1)$$

where,

Subscripts	=	Index of bank *i*, time *t*, and CSR component *j*
FP_{it}	=	Financial performance for each US bank, measured as EBITDA margin and MTB ratio separately
β_0	=	Model intercept
β_1	=	Slope of rating score of each CSR component
$B_{2...5}$	=	Slope of each control variable
CSR_{jit-1}	=	Lagged rating score of CSR component *j*
FP_{it-1}	=	Preceding year's FP (ROA or Net-Earnings)
$TotAsset_t$	=	Total Assets measuring the size of each bank
Lev_t	=	Leverage ratio
AssetGrowth	=	Ratio of total asset in the current period to the total assets during the preceding period.
$CapexR_t$	=	Ratio of capital expenditure to total asset to measure management preference.
ε_{it}	=	Statistical disturbance term

Hypotheses 2 – CSR on the cost of capital. The focus of this hypothesis was to address the second research question through the use of multifactor regression model, testing the impact of each CSR component separately on the cost of capital. The cost of equity capital used was based on FF3F model that incorporated three risk factors comprising market risk premium (MRP), size (SMB) and growth (HML). The null hypothesis ($H_0$2) and alternative hypothesis (H_a2) are specified as:

$H_0$2: Individual CSR components of banks cannot predict their cost of capital.

H_a2: Individual CSR components of banks can predict their cost of capital.

In testing the Hypothesis 2, the individual scores of CSR factors of each bank obtained from the KLD database represented the independent variable, while the cost of capital of each bank for each period was the dependent variable. The cost of capital used followed the Fama and French (1993) model in which the authors attempted to correct the anomalies that plagued the traditional capital asset pricing model (CAPM) model by introducing two additional risk factors for size (SMB) and growth (HMB) in addition to the market risk premium (MRP) which CAPM fully addresses (Eraslan, 2013).

The objective of this hypothesis was to assess the effect of the individual CSR indicators on the cost of capital of a bank as an FP measure. I considered the use of FF3F formulation in the model to be superior because Fama and French (1993) introduced additional risk factors that significantly addressed the anomalies that marred the earlier traditional, single-factor CAPM model. Fama and French (1996) claimed that the anomalies in the traditional CAPM model disappeared in their three factor model. This approach is one of the few in the current literature in which FP was separately tested

based on the cost of capital with respect to the individual CSR indicators, and is a significant contribution to the empirical literature. The relation was specified in the regression model stated in Equation 2.

$$FF3FCOC_{it} = \beta_0 + \beta_{1j}CSR_{ijt-1} + \beta_2 LogTotAsset_t + \beta_3 LEVERAGE + \beta_4 ASSETGRTH + \beta_5 EBITDAMgn + \beta_6 MTB + \beta_7 CAPEXR + \beta_8 LogME + \varepsilon_{it} \quad (2)$$

where,

Subscripts	=	Index of bank *i*, time *t,* and CSR component *j*
$FF3FCOC_{it}$	=	Cost of capital calculated using Fama-French three-factor approach
β_0	=	Model intercept
β_{1j}	=	Slope of CSR component *j*
CSR_{ijt-1}	=	Lagged rating score of CSR component *j*
MTB	=	Current period's MTB ratio
EBITDAMGN	=	EBITDA margin
LogTotAsset	=	Natural logarithm of total assets.
Leverage	=	Ratio of debt to total asset, measuring leverage ratio.
AssetGrth	=	Ratio of total asset in the current period to the total assets during the preceding period.
CapexR	=	Ratio of capital expenditure to total asset to measure management preference.
Log_ME	=	Natural logarithm of market capitalization

ε_{it} = Stochastic error term, assumed to be independent and insignificant, with a mean of 0 and standard deviation of 1.

Determination of cost of capital. Cost of capital was determined based on FF3F model, using Equation 3 formulation.

where,

$$E(R_i) - R_f = b_i[E(R_m-R_f)] + S_i\,E(SMB) + h_i\,E(HML) \quad (3)$$

$E(R_i)$ = Expected rate of return on stock portfolio.

R_f = Risk-free rate of return.

$E(R_m-R_f)$ = Expected excess return on the market index

b_i, S_i, h_i = Slopes of the variables or beta values.

E(SMB) = Expected value of the difference between the excess return on a portfolio of small stocks and the excess return on a portfolio of big stocks.

E(HML) = Expected value of the difference between the excess return on a portfolio of High Book-to-Market stocks and the excess return on a portfolio of Low Book-to-Market stocks.

Theoretical Framework of the Study

This study was guided by the Freeman's (1984) stakeholder theory that states that in the long term, it is beneficial for a business firm to be in harmony with its stakeholders. The empirical studies in which positive relationships between the CSR and the FP were found presuppose that seeking to satisfy the stakeholders rather than a narrow focus on the stockholders is profitable and leads to greater wealth to firm owners.

This is consistent with Jiao's (2010) contention that commitment to CSR is an investment in a firm's intangible assets and enhances its competitiveness. The prevalent euphoria of the CSR activities of enterprises rests on the positive stakeholder view to create shared value. This requires firms to invest in innovation and voluntarily engage in other activities that improve human and environmental condition. The opposite view is that the stakeholder theory may encourage the business managers to indulge in extracting private benefits at the expense of the stockholders (Jensen, 2010). Jiao (2010) attributed the empirical studies that found negative CSR-financial performance relation to such dimension.

Relying on the positive view of the stakeholder theory, I examined the extent to which the individual CSR components of the banks could predict the banks' FP particularly when the confounding effects of key variables were controlled. In the study, the FP was separately treated both from the accounting perspective and also from the cost of capital perspective. The concept map shown in *Figure 1* relating the individual CSR components to the respective corporate FP measures was adopted to guide the study. The chosen variables of the CSR, the FP, and the mediators were based on the reviewed literature in the context of banking industry.

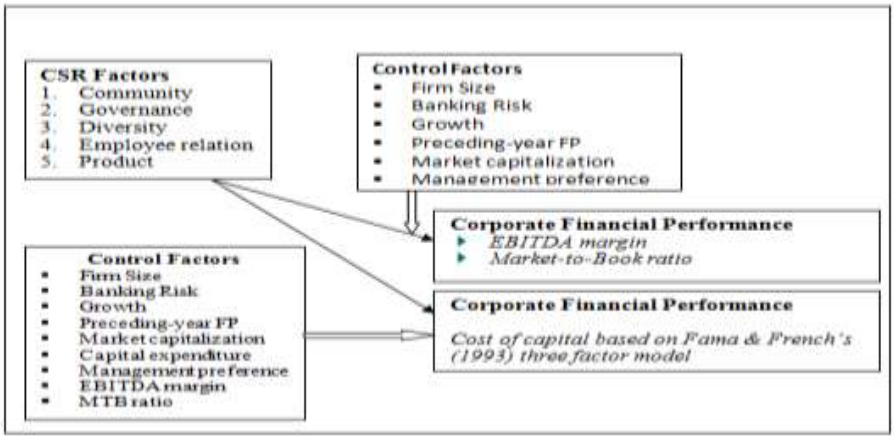

Figure 1: CSR-CFP conceptual model

In this study, I adopted five of the seven KLD CSR qualitative measures comprising community, governance, diversity, employee relation, and product. Social ratings were not available for environmental and human right factors as well as those factors under the exclusionary screens. Two dimensions of the financial performance were explored: the accounting returns comprising EBITDA margin and MTB ratio and the market-based cost of capital. Fama-French cost of capital represents the required rate of return on a security based on the excess returns valued by the company's beta (a measure of the company's systematic risk), the premium relating to the company's size, and the premium relating to the company's growth factor. As intervening variables, the firm size was operationalized as the volume of total assets, the banking risk was operationalized as the leverage ratio, the growth was constructed as the asset growth, the preceding year financial performance was the volume of the prior year financial performance (either the EBITDA margin or the MTB as the case may be), and the management preference was constructed as the ratio of capital expenditure to total asset.

Nature of the Study

In this correlational study, I tested the stakeholder theory that relates the CSR of business firms to the financial performance. Generally, the potential understanding from a quantitative research of this nature could be generalized to the larger settings. The independent variables comprised the CSR ratings published by KLD Research Analytics Inc. (2015): community, governance, diversity, employee relations, and product. The dependent variables were that financial performance measures, comprising the accounting returns (EBITDA margin and MTB) and the Fama-French cost of capital. In the accounting returns model, I used the firm size, banking risk, growth, preceding-year financial performance, market capitalization, and managerial discretion in the form of capital expenditure as the control variables.

For the 71 banks selected for the study, I collected financial data from the Bankscope database and the stock market returns from the NYSE and NASDAQ. Because the study data were quantitative in nature, I analyzed the data through multiple regression models using SPSS.

Definition of Terms

Agency theory: The conception that managers and directors of business firm are subject to conflict of interest, which may be resolved or minimized by aligning their interests with the interests of the shareholders through some measures.

Capital Asset Pricing Model (CAPM): The model of determining the required rate of return of a security that is based on the consideration of the excess returns and the systematic risk of the asset (Fama & French, 1993).

Corporate governance: The means by which business firms are operated, managed and controlled for the benefit of the stakeholders (OECD, 2008).

Corporate Social Responsibility (CSR): The behavior of a business firm that aligns with the interests of the diverse stakeholders and integrates these interests in the operations, products and practices of the firm (Carol, 1979).

Cost of equity: The minimum rate of return required by the equity shareholders which is determined with reference to the market price of the stock (Fama & French, 1993).

Earnings management: The unethical practice by management to manipulate financial performance and financial position of an enterprise (Rahmawati & Dianita, 2014).

Environmental conduct: Behavior of business firms to treat environment as a resource in a sustainable manner (Idemudia, 2011).

Environmental footprint: The adverse effects of businesses operations on the society, which corporations have social obligations to reduce to the safe level (Idemudia, 2011).

Ethical conduct: Obligations of business firms to operate with fairness and justice while dealing with the stakeholders (Carol, 1979).

External stakeholders: A group of people or organizations that influence or are influenced by the firm such as customers, suppliers, government, trade unions, and community (Orlitzky, 2013).

Fama-French three factor (FF3F) model: The variant of capital asset pricing model (CAPM) that includes additional two factors of size and growth to the market risk premium considered in the single factor model. The FF3F addresses the anomalies of the single factor model (Fama & French, 1993).

Financial reporting: The rules governing the maintenance of records in a business and preparing the required financial statements (Bona, 2012).

Greenwashing: Activities of business firms to improve its public image through strategic communication process (Sun & Cui, 2014).

Internal stakeholders: A group of people who work directly within the business firm such as employees, management, and shareholders (Orlitzky, 2013).

Management discretion/preference: Spending decisions taken by firms that are purely discretionary in nature (Soana, 2011).

Managerial opportunism: The tendency for corporate managers to act unethically by using corporate resources to advance their own pecuniary and other interests at the expense of the shareholders (Jensen, 2010).

Ozone layer: atmospheric condition of the earth which becomes threatened by the environmental footprint of business operations (Idemudia, 2011).

Risk management: The practice of identifying the business risks, analyzing the risks to understand them, assessing them for the purpose of prioritizing how to treat them, dealing with them through some strategic actions, and monitoring them to ensure that they are within tolerable limits (Jo & Harjoto, 2011).

Social conduct: Concerns of business firms for the working conditions of employees and the living conditions of other stakeholders (Carol, 1979).

Social responsibility: The role of business firms to support and improve the society while pursuing legitimate business interests (Carol, 1979).

Socially responsible investment: The expenditure of business firms for the purpose of improving the relationship with the stakeholders (Nofsinger & Varma, 2014).

Stakeholders: Those that the operation of the business firm has impact upon and those that can influence the behavior of the firm (Freeman, 1984).

Stakeholder theory: Stakeholder theory states that in the long run it is beneficial for business firms to keep the stakeholders happy with the firm (Freeman, 1984).

Sustainability: The running of affairs of business organizations in a beneficial way to the society in future (UN Global Compact and Accenture, 2013).

Weighted Average Cost of Capital (WACC): The overall cost of capital determined as the weighted average of the cost of equity and the cost of debt. It is used as an opportunity cost of capital in the firm (Hajiha & Sarfaraz (2013).

Assumptions

A number of assumptions were made in this study. First, it was assumed that the stakeholder theory used for this study was appropriate even though the study was focused on only banking industry. This implied that an attempt to generalize the results of the study beyond the banking industry needs to be treated with caution. The second assumption was that the five KLD CSR measures adopted as the predictors adequately captured the views of all the stakeholders of the US banking industry. Third, I assumed

that the relationship between the CSR and the FP is clear and logical in order to permit the generation of the hypotheses of the study. The next assumption was that the study of the CSR in the financial sector was relevant to economic and social development such that the observed impact of the CSR on the FP of banks should be real and nonspurious. The fifth assumption was that the hypothesized banks, being the listed banks on the KLD database, were representative of all the large banks in the United States. Finally, I made the assumption that the secondary data used in this study– the social ratings of sampled banks, the financial data of the banks, and the stock performance data of the banks– were complete and accurate.

Scope and Delimitations

The focus of this study was on examining the effect of the CSR on the FP of the banks in the United States. CSR variable was viewed as the multidimensional, ethical ratings at individual component level. The use of multidimensional, ethical ratings was one of the several ways of measuring CSR. An alternative was to view CSR from the perceptions of the stakeholders using primary data sources including questionnaires or in-depth interviews, or as a disclosure of information relating to social conduct, or as a unidimensional social measure such as corporate reputation, environmental footprint, social investment or charitable expenditure. Although several ethical rating agencies exist that measure CSR in different ways, in this study I adopted the ratings provided by KLD because of its popularity among the researchers. Unlike the common approach of aggregating the ratings of the individual CSR measures, in this study I avoided

aggregating the ratings. Instead, I examined the effect of each of CSR component on the financial performance measures of each bank.

In this study, I viewed the FP as the accounting returns of EBITDA margin and MTB as well as the market-based cost of capital. It is recognized that many intervening variables could confound the relationship between the variables; in this study I limited such factors to only firm size, banking risk, growth, prior year's financial performance, market capitalization, and management preference under accounting returns, with the addition of the EBITDA margin and MTD for cost of captial model. Each of these factors is capable of being treated in diverse ways, but I treated the firm size as the asset volume, the banking risk as the leverage ratio, the growth as the relative growth of the total asset, the prior year's FP as the ratio of the current year FP measure (EBITDA margin and MTB as the case may be) to their prior year levels, and the management preference as the ratio of capital expenditure to total asset.

I selected a sample of 71 banks that are available on the KLD database and that were also listed on the NYSE or NASDAQ. This limited sample size was determined by the simultaneous availability of social, financial, and stock market data. The secondary data used in the study comprised the proprietary ethical ratings data and the published financial data of banks in the United States obtained from the Bankscope Database, both of which are publicly availabe. The stock market data used for computation of cost of capital were obtained from Yahoo! Finance database. The ethical, financial and stock market data used were limited to a period of 5 years. Secondary data is commonly used in social science research because of its ready availability (Singleton & Straits, 2005).

Multiple regression analysis was employed to analyze the data in order to determine the correlation among the variables as well as assess their predictability. The chosen data analysis strategy was based on its popularity in the empirical literature. Finally, an alpha level of .05 and a beta level of .8 was set to minimize the statistical errors in the study and permit a meaningful generalizability of the findings to the entire banking industry as well as to other settings.

Limitations

Many factors may limit the usefulness of the findings of this study. First, the findings of the study may not be generalizable beyond the US banking industry. Extending the results to other industries in the United States or outside the geographical context of the study may render such generalization inaccurate. Second, the limited variables of this study implied that some important variables may have been omitted from the regression models which, if included in the models, could potentially alter the findings of the study. Third, the 5 year data used might not be adequate to permit reliable generalization. Fourth, the use of secondary data that was not constituted a limitation to the usefulness of this study, because such data were generated for a different purpose. Fifth, the accuracy of the secondary data might not be guaranteed. Potential errors and inaccuracies in the data at the measurement, compilation, or publication level would render the findings of the study inaccurate. Sixth, the study also suffered from availability bias, as some banks were dropped from the selection list because they had incomplete data. Missing or incomplete data is capable of weakening the potential of multiple regression model. Finally, some assumptions used in this study might be unnoticeably

violated leading to structural or model errors. Nevertheless, these limitations provide an opportunity for further studies to build on the outcome of this research.

Significance of the Study

The focus on the individual CSR components made this study to be unique by filling a gap in knowledge through the identification of the nature and significance of the effect which each component has on the firm's bottom line. Guided by this knowledge, corporate managers might be able to discriminate among the different CSR activities and allocate more resources to those that have significant positive relationship with the FP and less to others. Another unique feature of this study was its focus on the rarely examined market revealed financing cost as a measure of financial performance. Apart from complementing the prior studies, the study could provide a more complete understanding of how the different social factors influence the finance cost. Bank policy makers require such understanding to be able to take effective investment decisions (Ghoul et al. 2011). The improved understanding of the CSR-FP relationship might fill the knowledge gap in the literature, aid optimal resource allocations by business managers, and thus create positive social change.

Summary and Transition

In this chapter, I set the background for the study in the context of the US banking sector. The research problem that informed the study was identified within the current empirical literature, with a clear description of the deficiencies of prior studies that addressed the problem and the significance of the study for corporate managers and

decision makers in banks to guide them in their resource allocation responsibilities. The purpose of the study was stated and clarified; the variables of the study were explained, and the two research questions and hypotheses that guided the inquiry were stated, explained and justified. Underpinned by the positive view of the stakeholder theory, a conceptual framework to guide the study was presented, showing how the individual CSR components were related to each of the financial performance measures. I equally identified, explained, and justified the intervening variables believed to mediate the results of the interaction between the CSR components and the financial performance. The study rested on a number of important assumptions which I identified and explained. I also explained the scope within which the study was conceptualized and the delimitations set to ensure a controlled inquiry. The significance of the study was explained in terms of the potential positive social change that the study could create. I closed the chapter with the identification of the factors, situations and circumstances that might limit the generalization of the findings and conclusions to other settings, with the explanation that these limitations might be explored in further studies.

In the chapter 2, I conducted the review of the theoretical and empirical literature on CSR-FP relation, to set the context of the study. The literature review was thematically structured, identifying the key issues in the literature, evaluating the evidence supporting the issues, assessing the significance of this evidence, and taking a position for the implication for the current study. This approach was to ensure that the current study was twined within the confines of the current literature. While analyzing the literature on particular themes, I ensured that the sources cited to a large extent were

within the last 5 years in line with the guiding principles of the doctoral studies in Walden University. I commenced the literature review with a brief introduction and an explanation of how the resources used for the reviewed were acquired. I then proceeded to explain the key topics covered including CSR, financial measures of business performance, CSR theories and business case, and the recent empirical findings on the CSR-FP link. Under each of these topics, I identified the subthemes and used the analytical approach to evaluate them and provide a justification for their relevance to the current study. I closed the literature review chapter by summarizing the gaps identified during the literature analysis, indicating how these gaps were addressed in the current study.

In the chapter 3, the methodology for conducting the study was explained, and the details of the chosen design were provided together with the theoretical and empirical justifications. I began the chapter by examining the chosen philosophical paradigm of the study including its ontology and epistemology. I then reviewed the design of the research and defined the dependent, independent and control variables of the study. The characteristics of the target population were identified, followed by the description of the sampling method and the sampling frame that guided how the sampling items were selected. I explained and justified the instrumentation, data collection procedures, and data analysis method within the context of the literature reviewed. I also provided the details of the two hypotheses that guided the inquiry and provided a justification for their inclusion based on the guiding research questions. I then concluded the chapter by

providing an insight on how the output of the data analysis should be interpreted based on the chosen alpha level.

Chapter 2: Literature Review

Introduction

The current literature on the business value of social conduct is inconclusive and controversial, as researchers found divergent effects of social performance on the business financial performance. In this study, I sought to examine the effects of the corporate social responsibility (CSR) on the business financial performance (FP) measures proxied by the cost of capital. In this chapter, I reviewed the theoretical and empirical literature relevant to this study. In the first section, the review of the concepts of CSR and FP was undertaken as well as the assessment of how they have been viewed by theorists and empirical researchers. The linkage between the CSR and FP and how this link has been examined by researchers were reviewed in the second section. The focus of the third section was on the operationalization of the independent variables (CSR and its components), dependent variables (both accounting and market derivatives) and control variables that have been identified in the literature to influence the CSR-FP relation. The main issues from the literature review were then summarized in the final section, closing with the identified gaps that needed to be addressed as well as the plan that could help to address them.

Literature Search Strategy

This literature review was based on various sources including Academic Search Primer and Business Search Primer or EBSCO, ProQuest Dissertations, and Walden University Dissertations. Emphasis was on peer-reviewed resources within the past 5

years . The search strategy was principally based on the advanced search options using Thoreau Multiple Databases with Boolean operation on such subjects as *corporate social responsibility, stakeholder theory, CSR, corporate financial performance, social performance, financial performance, social market performance, sustainability,* and *corporate ethics*. I also utilized the edited resources that were relevant to the theoretical and empirical development of the CSR and FP constructs.

Corporate Social Responsibility

Evolution and Definition of CSR

Involvement of business firms in societal development activities beyond the pursuit of profit making to accelerate shareholders' wealth maximization has been gaining momentum in business and in academics. Although businesses were found to have engaged in some form of social activities during the 19th century era of factory systems the formal writings on and the developments of the CSR concept date back to 1950s (Maden et al. 2012). But understanding the nature of the impact that the CSR has on the business financial performance has recently elicited increasing academic and business interests with the escalating demand for businesses to be more responsible to the stakeholders other than the shareholders and strive to meet their multifarious needs (Aguinis & Glavas, 2012). The CSR topic is now a common feature of corporate websites; corporations now designate a senior management member to anchor the CSR issues, while most reputable business schools now not only engage CSR subject matter professors, they also integrate CSR ideals into the business management curricular (Montiel & Delgado-Ceballos, 2014). On a global scale, business corporations have

integrated the CSR ideals into their business models and operating structures, as a strategy to maximize profit through self-interest (Servaes & Tamayo, 2013). Common evolutionary trends that support increasing acceptance and growth of CSR include the increasing affluence of the global societies as well as the increasing competition and globalization (Surroca, Tribo, & Zahra, 2013), the need to redress the image crisis (Avram & Avalsilcai, 2014), advances in communication technology that aid the global broadcasting of irresponsible corporate acts (Keffas & Olulu-Briggs, 2011; Wang, Lu, Kweh, & Lai, 2014), and the increasing concern for environmental safety and ecological sustainability (Idemudia, 2011). Despite this euphoria of social interests by business firms, there is no universally accepted definition of the CSR yet.

The CSR has been conceptualized in diverse ways and researchers are yet to agree on a common definition of the construct. It is regarded as essentially contested concept, with meanings varying with people and with contexts (Saeidi et al. 2014). The emergent state of the construct is evidenced by lack of cohesion, definitional consensus and theoretical maturity that dominate the literature. A universal definition is fundamentally inevitable to the understanding, growth and wide acceptance of the concept. A common theme of the CSR that has emerged in literature relates to how to create value to the stakeholders rather than a narrow focus on the stockholders, the corporations' legal owners (Peloza & Shang, 2011). An off-shoot of this theme is the popular definition of CSR as a set of context-specific corporate actions and policies that integrate the stakeholders' expectations and the triple bottom line of economic, social and environmental performance (Aguinis & Glavas, 2012, p. 933). In view of the definitional

lacuna that presently characterizes the CSR literature, it was accepted for this study that CSR is a voluntary business firm action directed toward improving the economic, social, and ecological or environmental conditions of the society including the future generations (Okoye, 2009). The lack of definitional consensus on CSR can be attributed to the divergence of the perspectives that are associated with the construct.

Dimensions of CSR

Several dimensions of the CSR have received adequate research attention. The early conceptualization of CSR was the philanthropic perspective whereby business firms make charitable donations or contributions to the society (Caroll, 1991). The organizations that make such corporate contributions including banks do amplify such acts of generosity in their published information to draw public attention to them so as to garner support and legitimacy (Wu & Shen, 2013), although the sincerity of the benevolence act may be questioned by the profit-centeredness inherent in the nature of business (Jensen, 2010). Environmental issues also feature prominently in the CSR thought. The CSR concept overlaps with the environmental responsibility including the human and the natural environment that are often neglected in the CSR discourse (Idemudia, 2011). The concept has also been viewed as a managerial process (Akanbi & Ofoegbu, 2012), as exemplified by the creation of executive offices or designates for CSR responsibilities parallel to the other corporate responsibilities. In this regard, the CSR is taken as a corporate strategy, aimed at assisting organizations to achieve its goals through the application of the traditional management functions like planning, forecasting, coordinating, controlling and directing efforts on the social issues relating to

the business (Saeidi et al, 2014). Mustafa et al. (2012) contended that CSR has become a core business strategy aimed at contributing to the bottom line. Thus social responsibility considerations should therefore be seen not as a burden, but as a tool that may assist to innovate and gain competitive edge. On the contrary, it was recently observed that CEOs only used CSR investment as a tool that enables them gain some personal advantage like empire building and power, after which they reduce their investment in CSR (Jiraporn & Chintrakarn, 2013), which is in agreement with the school of thought that opportunistic managers may exploit the CSR for their private benefits (Jensen, 2010). From the human rights and labor perspective, CSR was viewed as a contribution to social welfare (Maden et al. 2012), the essence being to motivate employees in the work environment and enhance corporate reputation. The enumerated diversity of the CSR dimensions partly explains the inconsistent research outcome on the CSR-FP relation.

Social Irresponsibility Dimension

Corporate social irresponsibility is another dimension of the CSR that is currently gaining momentum among researchers. It arises from the perceived failure of business to act in accordance with societal expectations. Following the observation of McWilliams, Siegel and Wright (2006) that corporate irresponsibility has almost been ignored in the CSR literature, Herzig and Moon (2013) and Lange and Washburn (2012) examined the irresponsible conduct of corporations. The irresponsible conduct arises when a corporate decision is not Pareto-optimal (Arnold & Valentin, 2013). The concept centers around the commonly observed despicable corporate acts including fraud, fraudulent financial reporting, deceiving customers, cheating governments, exploiting employees, putting

other stakeholders like customers, employees and the general public at risk, and polluting the environment (Herzig & Moon). Such corporate acts of irresponsibility precipitated the collapse of many corporate giants in the 2000's such as Parmalat, Enron, and WorldCom (Arnold & Valentin, 2013). The global meltdown of the 2007-2008 was also attributed to the irresponsibility of the financial sector (Herzig & Moon). Nevertheless, the empirical study of the corporate irresponsible acts is marred largely by the perceptive and subjective assessment of undesirability by the observer (Lange & Washburn, 2012). The observer's reactive subjectivity makes the objective analysis of corporate social irresponsibility a mirage. The corporate social irresponsibility hypothesis is therefore aimed at providing more complete understanding of the CSR concept.

CSR Theoretical Frameworks

A number of theoretical frameworks have been proposed by researchers to model the CSR idea. Using the social contract theory signifying the societal license implicitly granted to businesses to operate, Committee for Economic Development (CED) (1971) developed a CSR framework of three concentric circles: the inner circle representing the strict economic responsibility of the business to the society through the provision of goods or services profitably and the provision of employment; the intermediate circle representing the obligation to respect the societal value system; and the outer circle depicting the expectation for active involvement in improving the environment. Even though its emphasis is on the involvement of businesses in the provision of social/public goods beyond the narrow economic focus, the framework provides no idea of how the identified responsibilities can be discharged.

Caroll (1991) expanded the CED framework by developing a more comprehensive three dimensional CSR framework, covering the nature of corporate responsibilities, the topical social issues to which the responsibilities are tied, and the philosophy of responsiveness. The corporate responsibility dimension was modelled as a pyramid of four key responsibilities that are based on the societal expectations from the business firms (Carol, 1979). Arranged in their order of emphasis, these are economic responsibilities, legal responsibilities, ethical responsibilities, and philanthropic or discretionary responsibilities (Carol, 1979). The economic responsibility, as the base of the pyramid, attracts the greatest emphasis, as shown in the Figure 2. The economic responsibility of business firm is the societal expectation that the business firm should produce the needed goods and services and sell them profitably, as well as employ people in the production process (Carol, 1979). According to Caroll, the economic responsibility is so fundamental that the other responsibilities rest on its assumption. A corollary to this requirement is that if the business fails in its economic responsibilities, it faces a threat of going out of business and losing its rights to exist under the terms of the social contract theory. The legal responsibilities relate to the societal expectation that, in producing the needed goods and services, business firms must perform their expected roles within the confines of the extant laws, regulations, norms and customs leading to orderliness in the society (Caroll, 1991). Failure to abide by the guiding rules increases the risk of being penalized which may include withdrawal of the implicit social contract certificate (Caroll, 1991). The author posited that every society also expects business firms to act ethically and morally. Though the business firms are artificial persons, corporate decisions are

influenced largely by internal decision structure and a set of organizational beliefs, values and culture (Lange & Washburn, 2012). This connotes that these artificial persons are also capable of assuming and discharging moral responsibility. So, the society expects business corporations to act ethically while discharging their other obligations. The philanthropic responsibilities are voluntary activities that the society desires. Such gestures are in the form of corporate donations, charitable gifts or community involvement in purely corporate activities (Borgers & Pownall, 2014; Nofsinger & Varma, 2014). The society rewards the business firms for such philanthropic gestures in the form of loyalty to the firm and social acceptance of its products or services (Arnold & Valentin, 2013). However, Friedman (1970) warned that when firms indulge in philanthropic activities in anticipation of obtaining these rewards such activities do not constitute a CSR. This emphasizes the voluntary and nonpremeditated nature of the CSR concept.

Figure 2: CSR framework: Theoretical framework showing the four-part CSR model (Carol, 1991), with the responsibilities arranged in their order of emphasis.

Carroll (1979) provided further insight into how the corporate responsibilities described in the pyramid can be discharged. Carroll contended that both the social issues dimension and the corporate response dimension are largely context-dependent: the social issues are dynamic and are in a state of flux, attracting varying degrees of interest or concern to each firm or industry, while the responsiveness approach also comes in varying degrees ranging from doing nothing to doing much depending on the managerial decisions in the particular firm at a particular time period. This exposition is a contributing factor as to why the CSR remains an essentially contested concept that is largely affected by industry conditions and managerial disposition.

Drivers of Corporate Social Responsibility

Consistent with the comprehensive Carol's (1979) CSR framework, business firms respond to their social responsibilities in varying degrees of intensity, ranging from reactive, defensive posture to proactive, leading stance, depending on their motive at the particular time. It implies that a number of idiosyncratic and environmental factors drive CSR. Banks, for instance, are largely motivated to pursue CSR because of the strategic value of the social conduct to their business (Wu & Shen, 2013). The authors posited that consumers and investors are the predominant drivers of CSR in the banking industry.

Wood (2010) contended that businesses should be concerned with consumerism amongst other social issues. Consumerism is the idea that consumers tend to reward the ethically perceived firms by paying higher prices for their products while they punish the unethically perceived ones with lower prices, boycott and, in extreme cases, violent

protests (Parsa, Lord, Putrevu & Kreeger, 2015). The market perception is central to the strategic implication of the CSR to the business firms.

The attitude of business firms to social responsibility is a key consideration by the investors in their selection processes Ghoul et al. (2011). The use of social screens in the selection process inevitably results in differential costs of capital among CSR and nonCSR firms. Ghoul et al. (2011) found evidence supporting the notion that the firms with socially responsible practices entrenched in their business or corporate strategies have higher valuations, lower cost of capital and lower risk while those with antisocial practices such as those that operate in the sin industries like tobacco, beer, and gun attract lower valuations, higher financing cost and higher risk. The strategic content of the CSR is therefore a potent driver of business engagement in social conduct.

In consonance with stewardship theory, the business managers who control corporate resources are placed in a position to manipulate the use of the CSR as a tool to achieve particular aims (Jensen, 2010). How well the managers use this tool is largely dependent on the available external control in form of public policy (Brammer, Jackson, & Matten, 2012), stakeholder pressure (Sobhani et al. 2012), and the internal control exerted by their governance boards (Jensen, 2010). Jiraporn and Chintrakarn (2013) observed that CEOs commit resources to CSR for selfish reasons such as to gain more power. Corporate control is important in order to ensure managerial utilization of the CSR resources toward organizational value creation.

The presence or the absence of laws and regulations as well as the effectiveness of their monitoring also moderates the social conduct of business firms. The need for

business firms to play by the codified rules is part of the legal domain of the Caroll (1991) CSR framework. Caroll contended that the presence of the laws and regulations and their enforcement are a major tool that helps to align managerial behavior to good social conduct. Thus to the extent that failure to operate within the confines of the rules and regulation is a trajectory of corporate failure, the business pursuit of the CSR is driven by the need to discharge their legal compliance responsibilities.

The CSR is also driven by the organizational need to build moral capital through deeply rooted positive cultures and virtues, which aid achievement of business goals (Griffin & Prakash, 2014). Falling within the philanthropic domain of the Caroll CSR framework, organizational virtuousness is a tool of strategic value creation (Fernando & Almeida, 2012). This practice has led to the propagation of new concepts in management theory such as McDonaldization and Starbuckization (Brammer et al. 2012). Thus the need to build enduring corporate culture that is deeply rooted in tradition and virtuousness is instrumental to the philanthropic responsibilities.

Lately, the frontiers of the business engagement in CSR have been further expanded by the emergence of the concept of enlightened shareholder value and the associated quest to find business legitimacy (Adeyanju, 2012). While seeking to achieve their sustainable development goals, governments at national and supranational levels encourage businesses to espouse CSR ideals (Arnold & Valentin, 2013). The business corporations are called upon to complement the government efforts in providing public goods and social services (Griffin & Prakash, 2014). Some jurisdictional governments also enact and enforce CSR regulations that compel corporations to display a high sense

of social conduct (Cajias, Fuerst, & Bienert, 2014). Against this backdrop, a handshake between the private sector and the government ensures sustainable CSR.

CSR Measurement Methodology

Researchers have measured the CSR in diverse ways including the use of questionnaire surveys, content analysis of disclosed CSR information in corporate publications, spending measures, unidimensional, and multidimensional ratings based on some observable social responsibility indicators. Each of these measures has unique strengths and weaknesses. Soana (2011) argued that the diversity of CSR measures largely contributes to the contradictory findings on the nature of the CSR-FP relation. The prevalent diversity of measures is exacerbated by the multiplicity of possible approaches within each measure. For instance for some studies in which multidimensional social responsibility ratings were used, researchers adopted KLD ratings (Becchetti et al. 2012; Lioui & Sharma, 2012), EIRIS Index (Wu & Shen, 2013), AEI Index (Soana, 2011), and SGP Index (Torres et al. 2012). Each of these rating bodies determines its index based on some surveys as well as measures on several qualitative factors.

Questionnaire surveys.

Questionnaires are completed by respondents who may be the targeted stakeholders or corporate executives based on their perceptions of how the firm discharges its social responsibilities. Chen & Wang (2011) administered their questionnaires to the senior executives of Guangdong enterprises of China while Mustafa et al. (2012) directed their questionnaires to the top management of public listed

companies in Malaysia. When survey questionnaires are used, they only represent the views and perceptions of the respondents, which could be bias (Lange & Washburn, 2012).

Content analysis of disclosures in corporate publications.

Scores of researchers have adopted content analysis of disclosures in corporate publications relating to social and environmental matters. This process involves counting of words, phrases, clauses or sentences in the publications that relate to the social or environmental themes and using binary values to quantify them (Ganescu, 2012). Presupposing that the social disclosure in the corporate publications is a good proxy for the CSR, many studies adopted this measure to examine the CSR-business value link. Rahmawati and Dianita (2011), Uadiale and Fagbemi (2012), and Uwuigbe and Egbide (2012) used content analysis of corporate disclosures to examine the CSR-FP relation. It has been argued that no research has attested to the validity of content analysis of published corporate information (Soana, 2011). For this reason, the content analysis methodology lacks theoretical base and offers only limited practical value.

Spending measures.

CSR could be measured by the level of expenditures such as the voluntary donations and the charitable contributions made by the firm toward improving the social and environmental wellbeing of the stakeholders (Soana, 2011). The voluntary social spendings such as donations, advertising expenditures and training expenditures may help to bolster the firm's image, reduce the social pressure against the firm, and ultimately improve the firm's competitive performance leading to greater profits and stockholders'

wealth (Weshah et al. 2012).The motive for the expenditure and the prevalence of information asymmetry make the efficacy of the social spendings by business managers to be shrouded in uncertainty which increases agency cost (Sun & Cui, 2014).

Unidimensional indicators.

The unidimensional indicators are focused on only a single aspect of social responsibility practices such as environmental or philanthropic practices in the local communities. Because unidimensional CSR measures are limited by lack of comprehensiveness, Caroll (1979) espoused the economic, legal, ethical, and philanthropic dimensions of CSR. To overcome the narrow focus of unidimensional measures, researchers combined the measure with other measures. For instance, Busch & Hoffmann (2011) measured the CSR as carbon intensity which they related to the firm sales, but combined this unidimensional measure with the questionnaire surveys and the sustainability rating index.

Reputational measures.

It is possible to calculate some scores on goodwill associated with the reputation of a firm and use these scores as measures of the CSR for research purposes. *Fortune* regularly provides such a calculation based on the reputation perceived by their respondents and publishes Corporate Reputational Index, such as its AMAC (America's Most Admired Companies) ratings. As a CSR strategy, defending reputation helps the business corporations to develop legitimacy and gain competitive advantage (Sun & Cui, 2014). The challenge with the reputation-based measures is that the respondents' perception and the resultant corporate reputational ratings are distorted by the firm's prior

financial record (Soana, 2011). Therefore, reputation-based metrics are not likely to effectively measure CSR.

Multidimensional ethical ratings.

Following the difficulty that the objective measurement of the CSR poses to the empirical research, specialized agencies have in the last 3 decades sprung up devising models to quantify various aspects of CSR (Saeidi et al. 2014). These agencies collect data regularly that relate to the different stakeholder groups. The scores from the data are then aggregated using arithmetic or weighted average to determine the overall ethical rating for each organization of interest. These agencies create database of ethical ratings which researchers have used over time to study the CSR. Currently, there is preponderance of the use of multidimensional ethical ratings in the measurement of the CSR for empirical study purposes (Busch & Hoffmann, 2011). Of all the rating systems currently available, KLD is the mostly used resource (Chen & Delmas, 2011; Montiel & Delgado-Ceballos, 2014). Out of the 30 recent studies reviewed in this study, ethical ratings were adopted in 20 or 67% and KLD ethical ratings were adopted in 15 out of these 20 studies or 75%. Therefore KLD ethical ratings are the most popular amongst researchers.

Notwithstanding their popularity, Chen and Delmas (2011) contended that the multidimensional ethical ratings suffer from lack of a ranking of importance of the CSR factors. According to these authors, two broad aggregation methodologies are commonly used in the literature: (1) assigning equal weights to the CSR factors; and (2) assigning weights to the CSR factors based on the stakeholder preferences. Chen and Delmas

contended further that assigning equal weights to CSR factors assumes equal importance of all indicators, which is invalid, as stakeholder attributes such as perceptions, composition, and preferences, are dynamic and tend to change over time. Despite these limitations, I used KLD ethical rating methodology in this study based on its popularity.

KLD Ethical Rating Index

Based in Boston, USA, KLD is an investment research firm that was established in 1988. The firm, which was acquired by RiskMetrics Group (RMG) in 2010, developed KLD STATS database that tracks the CSR activities of the listed US companies, using qualitative measures of strengths and concerns with two broad screens – qualitative screens and exclusionary screens. KLD evaluates social performance through multiple data types including expert opinion, surveys, and public disclosures (MSCI, 2015). The qualitative screen comprises seven categories: community support, diversity, employment, environment, human rights, product, and corporate governance (MSCI, 2015). The exclusionary screen includes six categories relating to the business involvement in the 'sin' activities of gambling, firearms, military, nuclear, alcohol, and tobacco (MSCI, 2015). The strength and the concern factors under each category are rated and assigned a binary value of "1" if the firm meets the specified criteria or "0" if the firm does not meet the criteria (MSCI, 2015). However, only the concern factors are considered under exclusionary screens. On a yearly basis, there are unequal numbers of strengths and concerns in each category because some rating categories are discontinued (MSCI, 2015). Because of this, it is therefore difficult to make a direct year-on-year comparison between the strengths and the concerns within a category.

The use of ethical ratings is not without limitations. KLD is considered to be an imperfect measure of the CSR (Chen & Delmas, 2011; Saeidi et al. 2015), and as a result, researchers have operationalized KLD ratings in diverse ways to measure the CSR activities of firms. Servaes and Tamayo (2013) dropped corporate governance and product categories in their studies. According to them, while corporate governance relates to shareholders' financial objective rather than the social objectives of broad stakeholders, product category is focused on product quality and is not a strong element of the CSR. Jo and Harjoto (2011) and Wang et al. (2014) summed the values of strengths to measure the CSR of their sampled firms and also summed the values of the concerns (weaknesses) to measure their corporate social irresponsibility (CSiR). The diverse methods of applying the KLD ethical ratings make it difficult to compare research findings and reach consensus.

Current Trend in CSR Measurement

I found that the use of multidimensional ethical ratings based on objective methodologies dominates the current literature, and more of such studies used aggregated ratings compared to those that used individual CSR components. The CSR ethical ratings were adopted in 20 or two-third of the 30 recent studies reviewed. In 15 of the 20 studies, KLD ratings were adopted while in the other five researchers used Swiss-based Sustainability Asset Management (Busch & Hoffmann, 2011), Fortune Magazine's AMAC (America's Most Admired Companies) ratings (Sun & Cui, 2014), EIRIS (Wu & Shen, 2013), Singaporean SGP ratings (Torres et al. 2012), and Italian AEI ratings (Soana, 2011). Researchers measured the CSR using the content analysis of disclosures in

one study, the questionnaire surveys in six studies, and the spending measures in three studies. Furthermore, of the 20 studies in which CSR was measured as social ratings, the aggregated composite measures were used in 17 studies or 85% while individual components of the ratings were adopted in only three studies or 15%. Where the ratings of the individual components of CSR were used, researchers isolated the CSR factors that were positively related to FP from those that were not, leading to more relevant conclusions. Nevertheless, how well a measure reflects CSR remains a puzzle yet to be resolved and will continue to feature in the future studies (Chatterji, Levine, & Toffel, 2012).

Financial Measures of Business Performance

Financial performance (FP), unlike the CSR, presents little challenge in research in both conceptual and measurement terms. Stewardship model of business requires every business firm to make profit and to increase the firm value (Friedman, 1970; Jensen, 2010). Empirical researchers are unanimous in viewing profit or value creation from two perspectives: accounting perspectives and market perspectives, each of these presents its own unique challenges (Goss & Roberts, 2011; Wu & Shen, 2013). Although the number of the CSR studies is still inadequate, studies that are based on the accounting measures of performance have more proportionately received due attention, while the market-based performance remains underexamined (Becchetti et al. 2012; Ghoul et al. 2011).

Accounting Measures of Performance

Profit determination follows strict sets of accounting rules embodied in generally accepted accounting practices (GAAP), accounting standards, and other supra-national

and jurisdictional regulations. Appropriate accounting rules and policies are selected based on the management objectives and decisions. The accounting measures of financial performance proliferate in the recent literature, and they include the earnings per share (Becchetti et al. 2013; Ghoul et al. 2011), the EPS growth and return on equity/assets/sales (Becchetti et al. 2013; Chen & Wang, 2011; Servaes & Tamayo, 2013; Wu & Shen, 2013), and the asset growth (Wu & Shen). The other measures I found in the recent literature include the turnover and turnover growth (Arnold & Valentine, 2013), the net-/non-interest income on non-performing loan (Wu & Shen, 2013), the loan contract terms (Goss & Roberts, 2011), the brand equity (Torres et al. 2012), the cost-to-income ratio (Soana, 2011), and the absolute forecast error on EPS (Becchetti et al. 2013). Since accounting numbers follow strict sets of accounting rules, are validated by the independent external auditors, and are contained in the published financial statements, they are expected to be of high quality and subject to minimal manipulation (Jiao, 2010). However, because accounting indices are backward looking and are based on convention and corporate choice, they can be biased, incomparable, and open to manipulation (Gregory et al. 2014). This is typified by the spate of corporate scandals that have been recorded in recent history which were characterized by manipulation by the corporate managers often in tacit collusion with their auditors.

Market-based Measures of Business Performance

Market-based performance measures focus less on accounting numbers or rules; so they are less susceptible to managerial subjectivity, manipulation or opportunism (Hajiha & Sarfaraz, 2013). Market-based measures are determined by the external and

independent evaluation of the firm performance, reflecting the investors' perception and expectations of the future performance of the firm (Gregory et al. 2014). They are also not without limitations. Because market-based measures utilize capital market parameters such as security prices to evaluate firm FP, their focus is only on the financial stakeholders, while nonfinancial stakeholders who are also affected by corporate social conduct and misconduct are ignored (McWilliams et al. 2006). Market-focused measures may also not reflect the investors' assessment of the true value of information asymmetry (Dhaliwal et al. 2014). Conversely, market-based measures provide opportunity to consider alternative benchmarks and triangulate the findings from performance evaluation process to ensure a balanced and more objective conclusion (Ghoul et al. 2011). Market-based measures can be categorized into two broad types: (1) measures based on share value, and (2) measures based on cost of capital. Each of these measures can be separately related to the CSR measures for testing possible association.

Share value-based measures of financial performance.

Share-values have been used extensively to measure the firm financial performance (Tafti et al. 2012). The most commonly adopted measures are based on share prices including: (1) stock price (Baird et al. 2012), (2) price-earnings ratio (Soana, 2011), (3) MTB ratio (Deng et al. 2013; Soana, 2011), and (4) Tobin's q (Busch & Hoffmann, 2011; Inoue & Lee, 2011; Jo & Harjoto, 2011; Kang et al.; Lioui & Sharma, 2012; Servaes & Tamayo, 2013). Of all these, the use of Tobin's q is more prominent among researchers. Market returns have also been used by researchers to measure of financial performance in the current literature. This involves the calculation of excess or

abnormal market returns (Becchetti et al. 2012; Deng et al. 2013). Only very few scholars used the volatility of market returns (Deng et al.) or adopted asset pricing approach in their empirical models (Becchetti et al. 2012). The use of volatility and asset pricing approaches to studying the CSR-financial performance relation is an area that deserves extensive exploitation by researchers.

Cost of capital as a measure of financial performance.

In finance theory there are two sides to profitability: maximizing returns and minimizing financing cost. There is inadequate research into the relation between CSR and the financing cost dimension of corporate financial performance (Goss & Roberts, 2011). Campbell et al. (2012) observed that the relation between WACC and internal financial resources is positive and significant. For CSR research purposes, the cost of capital can be operationalized as the cost of debt, the cost of equity, and WACC. In the review of the current literature, I sighted only four of such studies: Cajias et al. (2014), Ghoul et al. (2011), Gregory et al. (2014), and Hajiha & Sarfaraz (2013).

Ghoul et al. (2011) examined the relationship between the CSR composite scores and the cost of equity; the authors found a positive interaction between the two variables. In their research, Campbell et al. (2012) examined the cost of debt, the cost of equity and the WACC separately against their nonCSR related independent variables. The focus of this study on the underresearched effect of CSR factors on the financing cost could help to improve the understanding of the CSR-FP relation.

Information Asymmetry and Financial Performance Measures

Financial performance measures are conditioned by information asymmetry (Jiao, 2010). The managerial tendency to manipulate financials increases the information asymmetry, which complicates the financial reporting and performance measurement system (Grougiou et al. 2014). A number of factors affect the degree to which information asymmetry masks financial performance measures. First, information asymmetry is increased with market imperfection and reduced when market is perfect (Armstrong, Core, Taylor, & Verrecchia, 2011). Second, information asymmetry is reduced in large firms and increased in small firms (Bouslah et al. 2013). Lastly, information asymmetry is increased when earnings management practice is entrenched and reduced in more transparent environment (Grougiou et al. 2014). Genuine CSR disclosures help to reduce information asymmetry, risk and financing cost (Dhaliwal et al. 2014; Rahmawati & Dianita, 2014). This suggests that the ethical dimension of CSR has implication for the quality of financial information of a business firm.

Current Trend in Operationalization of Financial Performance

I observed from the recent literature I reviewed that financial performance was divergently operationalized, though still within the accounting and the market-based dimensions. In most of the studies, the traditional definitions of FP such as ROE, ROA, Sales growth, market returns, and Tobin's q were not used. In a good number of the studies, financial performance was operationalized in an unconventional manner such as netinterest income, noninterest income, and nonperforming loan (Wu & Shen, 2013), loan contract terms (Goss & Roberts, 2011), brand equity (Torres et al. 2012), cost-to-

income ratio (Soana, 2011), absolute forecast error on EPS (Becchetti et al. 2013), cost of equity (Ghoul et al. 2011), and volatility of market returns and risk-adjusted market performance (Baird et al. 2012).

In a few of the studies reviewed, researchers tested the financial performance from the market expectations perspectives. This is consistent with the claim by Becchetti et al. (2012) and Ghoul et al. (2011) that finance literature suffers from inadequate research on the CSR-FP relation from the investors' perspectives. Deng et al. (2013) employed Fama-French three factor model and Carhart four-factor model to test whether social performance was incorporated in the stock returns and found this to be affirmative. Becchetti et al. also tested the market reaction to corporate entry into and exit from the multidimensional KLD's Domino 400 Social Index using Fama-French three factor model and also found significant impact of the announcement of the CSR event on the cumulative abnormal returns around the announcement date. Similarly, Ghoul et al., who tested the cost of equity premium on the various CSR components, found that some high CSR elements are associated with lower equity capital cost, implying a positive CSR-FP relation.

In an attempt to enrich the understanding of the impact of the CSR on the FP from the market perspectives, the FP was tested in many studies based on the various market-based measures. From the 30 studies reviewed, I found that Tobin's q was used by six researchers (Busch & Hoffmann, 2011; Inoue & Lee, 2011; Jo & Harjoto, 2011; Lioui & Sharma, 2012; Moura-Leite et al. 2014; Servaes & Tamayo, 2013), share value by three researchers (Becchetti et al. 2013; Baird et al. 2012; Tafti, Hosseini, & Emami. 2012;

Gregory et al. 2014), excess returns in nine studies (Becchetti et al. 2012; Deng et al. 2013), and, finally, cost of capital in four studies (Cajias et al. 2014; Ghoul et al. 2011; Gregory et al. 2014; Hajiha & Sarfaraz, 2013). Thus while Tobin's q and excess returns are prominent in the current literature, share values and cost of capital are uncommon measures of FP. In the CSR studies, using FP measures that are not based on market dynamics amounts to model misspecification and faulty design (McWilliams et al. 2006). A more comprehensive approach would be to test the market-based cost of capital on each of the CSR factors , as the result of such design should reflect the expectations of the stakeholders (Becchetti et al. 2012; Ghoul et al. (2011). This research was aimed at addressing this gap in the empirical literature, and in this regard I regressed the market-revealed cost of capital against the individual CSR components of the selected US banks.

CSR Theories and Business Case

A number of organizational theories have been applied to study the relation between corporation and society (Okoye, 2009). The common ones that researchers have used are the neoclassical economic theory, the stakeholder theory, the institutional theory, and the resource-based view, although it has been argued that each of these theories is useful for a particular purpose when applied to the CSR depending on the dominant research questions (Montiel & Delgado-Ceballos, 2014).

Neoclassical Economic Theory of CSR

CSR theory evolved from the Smithsonian view of corporation as a member of the larger economic system, where the constituents are driven by self-interest and where invisible hand operates to allocate resources to achieve a balance (Carroll, 1991). Leaning

on this contractarian view of a firm, Friedman (1970) argued that business corporation is obliged to pursue only profit making, contending that social responsibility and business are incompatible. This pure economic view of corporation was also emphasized by a number of empirical researchers. Jensen (2010) contended that when corporations diverge from their basic goal of making profit for their owners to the pursuit of social endeavors, this creates an opportunity for the managers to move away from the radar of control, motivating them to indulge in pursing private benefits to the detriment of the owners and other stakeholders. This theoretical perspective is informed by the philanthropic dimension of the CSR. Thus the neoclassical economic theory is useful as a starting point of theorizing the CSR-FP relation. The complex and dynamic nature of the social and human environment suggests that a broader conception of corporate conduct is imperative (Okoye, 2009).

Stakeholder Theory of CSR

Propounded by Freeman (1984), stakeholder theory is based on the axiom that it is in the best long-term interest of a business to care for its stakeholders on whom the firm depends for its inputs and outputs. This perspective is a paradigm shift from the neoclassical theory that focuses only on the business owners. Stakeholder theory, referred to as good management theory, is about doing good to those that the firm interacts with in order to create the enabling environment for the business firm to gain competitive advantage and grow (Busch & Hoffmann, 2011). The stakeholder theory is a dominating theory in the empirical literature, as it is well supported by researchers (Ghoul et al. 2011). In support of the stakeholder theory, Deng et al. (2013) found that the acquirer's

social performance is positively related to merger performance. Orlitzky (2013) drew attention to the increasing pressure many corporations face to become more socially responsible and embrace the CSR in the process.

The stakeholder theory has equally been used to study several other CSR contexts. It was used to test if the CSR creates value after merger of firms (Deng et al. 2013), if the stakeholder welfare impacts on the firm valuation (Jiao, 2010), if the climate change impacts on the financial performance of firms (Busch & Hoffmann, 2011), if the environmental factors affect the profitability of a business (Lioui & Sharma, 2012), and if the CSR impacts the financial risk of a company (Ghoul et al. 2011). Stakeholder is a broad concept; its scope encompasses the internal stakeholders like managers and employees, the external stakeholders like investors who commit resources based on their perception of the information available to them, the future generations who are affected by the corporation's past, present and future activities, and the broad society together with the societal issues that condition human values (Orlitzky, 2013). This populist characteristic of the stakeholder theory is instrumental to the development of the strategic case for the CSR (Becchetti et al. 2013). This is done by integrating the social dimension into all the facets of business process to gain competitive advantage, leading to the achievement of organizational goals of profitability, stability, and growth (Chen & Wang, 2011). Conceptualized this way, it is possible to clearly identify the organizational goals and its stakeholders, develop strategies to manage the stakeholders through the manipulation of attitudes, structures, and practices, and finally assess the relationship between stakeholder management and the consequences for the results (Kasim, 2012).

This seems to explain why most of the empirical studies into the CSR-FP relation results in the positive relationship, depicting the normal investment-return behavior.

Institutional Theory of CSR

The role of institutions on the ability of corporations to act in socially responsible or irresponsible manner provides an alternative theory of the CSR. Because empirical research on the CSR has largely been dominated by the stakeholder theory, the institutional theory of the CSR was long neglected (Brammer et al. 2012). The authors proposed six key institutional factors: (1) the design of regulation, (2) the availability of effective self-regulation, (3) the effectiveness of the stakeholder monitoring, (4) the degree to which the normative calls are embedded in the business culture, (5) the membership of trade association, and (6) the engagement in dialogue with the trade/employee unions and the investor groups. Based on these factors, while some firms are considered socially responsible many others are considered socially irresponsible (Montiel & Delgado-Ceballos, 2014). Using these institutional factors, one can determine whether a firm acts in a socially responsible or irresponsible manner to particular stakeholder group. The institutional factors are neither exhaustive nor static (Servaes & Tamayo, 2013). The institutional theory has been in some recent studies where institutional factors were found to mediate the impact of the CSR on the FP such as level of customer awareness (Servaes & Tamayo, 2013) and the degree of earnings management (Rahmawatti & Dianita, 2011). From the above, it could be inferred that the institutional theory of CSR complements the stakeholder theory as it explores various

conditions that could mediate the behavior of the CSR-FP relation under the stakeholder theory.

Resource-based View of CSR

Resource-based view is another popular theory I found in the CSR literature. The theory is about the notion that possession of a strategic resource or asset such as CSR capability can strengthen a firm's competitive position if the competitors do not have access to such resources. Hart (1995) posited that environmental social responsibility is a key capability that creates competitive advantage to a firm. Although what constitutes an organizational resource is context dependent, nevertheless, to the extent that the CSR confers social legitimacy on its holders, competitive advantage is strengthened by the presence of the social legitimacy (Dawkins & Fraas, 2013). For instance, Lioui and Sharma (2012) found negative relationship between the environmental CSR and the FP agents. It is imperative for a firm not only to identify the resources at its disposal but also to subject them to careful analysis of their effect on the performance outcome.

The above analysis suggests that each theory is about a particular perspective that is held of the CSR dimension, implying that the theories are not competitive but rather complementary. It is important that researchers select a theory that is most appropriate for the research questions being studied. Although application of the stakeholder theory remains common in the empirical literature, the theory suffers from some fundamental weaknesses. Jensen (2010) contended that the failure of the proponents of the stakeholder theory to specify how managers should make tradeoffs among the competing interests increases managerial opportunism. Because managers cannot make purposeful resource

allocation decisions, they become unaccountable for their actions and may indulge in pursuing private benefits using the CSR screens. Orlitzky (2013) also shared the view that the stakeholder orientation inherent in the CSR is a restraint to value maximization, a primary long-run business objective. These views seem to be confirmed by UN Global Compact and Accenture (2013) claiming that global business leaders expressed skepticism in the CSR-business value link and questioned the continued championing of the sustainability drive by the business sector. This underscores the need to consider the conceptual weaknesses inherent in the application of stakeholder theory.

Recent Empirical Findings on CSR-FP Link

The empirical literature on CSR-FP link revolves around two central issues: the nature of the interaction and the direction of the causation between the two social constructs. Although, the study of both issues started over 6 decades ago, the empirical debates about them remain unsettled (Grougiou et al. 2014; Jo & Harjoto, 2011). The mutual interaction between the stakeholders and the business firms has over time shaped the development of the CSR as a business management strategy which many firms now imbibe to sustain competitive edge (Hajiha & Sarfaraz, 2013). Despite over 6 decades of research into the CSR-FP relationship, researchers continuously seek to determine the causal impact of CSR on FP and vice versa. In this section, I attempt to analyze and synthesize the recent empirical studies on the CSR-FP relation with a view to determining the common trend and identifying the significant gaps in the literature in order to advance the debate on the topic and improve human knowledge.

In this study, 30 recent studies on the CSR-FP relation within the recent 5 years between 2011 and 2015 were analyzed, with findings revolving around positive, negative, neutral, and mixed relationships between the two constructs, depending largely on the methodology adopted in each study and how the study was designed. This is largely consistent with the earlier studies. The studies differed in the geographical settings, the perspectives adopted toward measurement of CSR and FP, the direction of the study as to which construct is treated as independent variable or dependent variable, the nature of control variables used, and finally the method of analysis. Attempt was made in some of the studies to perform causal analysis through Granger causality test of lagged variables.

As indicated in the Table 1, out of the 30 papers analyzed, no relationship was found between CSR and FP in Soana (2011) and Dinsmore (2014) while positive and/or negative relationships were revealed in the other 29 studies (or 97%). Consistent with the earlier literature, in 22 of the 30 studies reviewed (or 73%), researchers recorded positive CSR-FP relationship. While negative relationships were observed in only two studies (or 7%), mixed relationships were found in only five of the 30 studies reviewed (or 17%). Thus in this analysis the studies showing non-positive (negative or neutral) relationships are rare, amounting to only three or 10% of the papers reviewed.

Table 1

Summary of Recent Empirical Studies Reviewed

S/n	Year	Category of studies				TOTAL
		Positive	Negative	Mixed	Neutral	
1	2011	4	1	2	1	8
2	2012	8	1	1		10
3	2013	3		2		5

4	2014	4				4
5	2015	3				3
Total		22	2	5	1	30
Proportion (%)		73%	7%	17%	3%	100%

The comprehensive result of the analysis of the 30 peer reviewed articles on the topic is shown in Appendix 1, indicating the scope, the variables covered, the analytical tools adopted, the contexts of study, and the nature of the relationships found in each study. Although the outcome of the current literature is consistent with the prior literature predominantly, tending towards positive CSR-FP relationship, the inconsistent results of the studies analyzed supports the lingering contested nature of the CSR. Despite the efforts that have been made over time to improve the methodological designs of studies, the inconsistencies of the findings on the CSR-FP relation are far from being resolved. So, the recent empirical research into the CSR-FP relation remains largely inconclusive, as researchers continue to find positive, negative, neutral and mixed relationships between CSR and FP in their respective studies.

Divergent CSR-FP Relationships

In the current literature, the studies showing positive CSR-FP relationship are prevalent. Positive relationship was found in 22 out of the 30 studies reviewed, or 73%. This is consistent with the prior literature (Jensen, 2010; Jiao, 2010) as well as the recent dissertations (Adeleke, 2014; Fomukong, 2014; Kasim, 2012). Negative CSR-FP relation was reported in two studies (Lioui & Sharma, 2012; Rahmawati & Dianita, 2011) while no relation was found in only one study (Soana, 2011). One may attribute the

skewness of findings toward positive CSR-FP relation to conceptual and methodological issues.

First, the adopted measures of the CSR accounted for most of the variations amongst the 30 recent studies reviewed. In 20 of the studies (or 67%) multidimensional ratings of CSR were adopted as the predictor variables. Among the 20 studies in which ethical ratings were used, 15 (or 75%) were based on KLD ethical ratings that were largely aggregated or composite scores. Out of the 15 studies that were based on the KLD ratings, positive CSR-FP relationship was found in 11 or 73% (Cajias et al. 2014; Deng et al. 2013; Gregory et al. 2014; Hajiha & Sarfaraz, 2013; Moura-Leite et al. 2014; Servaes & Tamayo, 2013). Thus the use of composite KLD ratings tends to yield more of positive CSR-FP relationships. Similarly, positive CSR-FP relationships were equally found in all the six studies where CSR was measured using questionnaires (Chen & Wang, 2011; Ganescu, 2012; Mustafa et al. 2012; Parsa et al. 2015; Saeidi et al. 2015; Tafti et al. 2012) and also in all the three studies where CSR was based on spending measures (Adeyanju, 2012; Wang, Wu & Sun 2015; Weshah et al. 2012). Similarly, negative relationship was observed in the only study that adopted content analysis of disclosures to measure CSR (Rahmawati & Dianita, 2011) as well as where CSR was focused on the environmental factors (Lioui & Sharma, 2012). With this revelation, it is important for researchers to consider the impact of their chosen measures, as the choice of measure may influence the outcome of the studies.

Second, the level of aggregation of the CSR multidimensional scores contributed to the findings of the studies which skewed in favor of positive relationships. The use of

individual component measures is a recent dimension in the literature. Out of the 20 studies where CSR was based on multidimensional ratings, individual components of CSR were tested in only six (Baird et al. 2012; Gregory et al. 2014; Inoue & Lee, 2011; Lioui & Sharma, 2012; Moura-Leite et al. 2014; Nandy & Lodh, 2012) while aggregated scores were tested in 14 studies. Positive CSR-FP relationship was found in 10 out of the 14 studies (or 71%) that were based on the aggregated scores while 50% was recorded in the studies that were based on the individual components. The implication of this is that positive CSR-FP relationship is escalated when aggregated CSR scores compared to when individual CSR components are used. This is because the components are not likely to behave homogenously with respect to the FP, since stakeholders' needs are heterogeneous and are, in many cases, conflicting (Moura-Leite et al. 2014). The true behavior of the CSR seems to be exposed when the individual components of CSR is examined. This implies that the decomposed CSR measures are more effective than the composite CSR scores, although it remains uncommon in the literature. It has been suggested that the aggregated CSR ratings be decomposed into their individual components to improve the understanding of the nature of each CSR factor (Goss & Roberts, 2011; Wu & Shen, 2013). The fact that the component approach to measuring CSR was rarely adopted in the recent studies reviewed is indicative of an underresearched area.

Third, the findings of the recent studies reviewed were conditioned by the broadness or the narrowness of the study contexts. The studies in which multiple industries are addressed out-number those in which single sectors are treated, which can

be considered as a contributing factor to the divergence of the research outcome observed in the literature. In the current literature represented by the 30 recent studies reviewed, multiple industries were examined in 19 (or 63%) of the studies while single industries were addressed in only 11 (or 37%) with varying results. In the 19 studies that were based on the broad context, positive CSR-FP relationship was found in 15, or 79% of them (Cajias et al. 2014; Moura-Leite et al. 2014; Hajiha & Sarfaraz, 2013; Nandy & Lodh, 2012). On the other hand, positive CSR-FP relationship was found in 7 out of the 11 studies (or 64%) that were based on single industries (Saeidi et al. 2015; Wang et al. 2015; Parsa et al. 2015; Weshah et al. 2012). Thus positive CSR-FP relationship is prone to occur when multiple industries are examined in the study. From the above analysis, examining the CSR-FP relation in multiple industries and multiple countries in a single set of studies is prevalent, with escalated outcome of positive CSR-FP relationship. In such studies the fundamental contextual condition of stakeholder theory is not recognized. Stakeholders' goals, objectives and aspirations tend to differ across the contexts of industrial and national boundaries (Baird et al. 2012). Thus combining the CSR ratings of different industries and different countries may lead to inconsistencies, even though such a strategy yields more of positive CSR-FP relation. A better approach is therefore to conduct the study in the context of each industry and each country (Baird et al. 2012 and Soana, 2011).

Fourth the divergent operationalization of the FP is a contributing factor to the recorded dominance of the positive CSR-FP relationship. Consistent with the prior literature, the use of traditional accounting measures of FP outnumbered that of market-

based measures of FP in the current literature. Out of the 30 recent studies reviewed, the FP was operationalized from the perspective of the traditional accounting in 17 (or 57%). In such studies, the FP was operationalized as ROA or ROE (Mustafa et al. 2012; Saeidi et al. 2015; Wu & Shen, 2013), interest income (Wu & Shen, 2013), loan contract (Nandy & Lodh, 2012), customer willingness to pay (Parsa et al. 2015), brand equity (Torres et al. 2012), and Tobin's q (Busch & Hoffmann, 2011; Inoue & Lee, 2011; Jo & Harjoto, 2011; Lioui & Sharma, 2012; Moura-Leite et al. 2014; Servaes & Tamayo, 2013). The market-based measures of the FP were used by researchers in 10 studies or 33% while CSR was treated as the dependent variable in only three studies or 10%. The market-based measures used include share value (Baird et al. 2012; Tafti et al. 2012), excess returns (Becchetti et al. 2012; Deng et al. 2013), absolute forecast error (Becchetti et al. 2013), default risk (Sun & Cui, 2014), cost of equity (Ghoul et al. 2011), cost of capital (Cajias et al. 2014; Gregory et al. 2014), and WACC (Hajiha & Sarfaraz, 2013). A positive CSR-FP relationship was found in 11 (or 65%) of the 17 studies where traditional accounting based measures as FP while eight (or 80%) were observed in the 10 studies in which the market based measures of performance were used. Interestingly, positive relationship was observed in all the four studies of the effect of the CSR on the FP, when the FP was measured as the cost of capital (Cajias et al. 2014; Ghoul et al. 2011, Gregory et al. 2014; Hajiha & Sarfaraz, 2013). The implication of this finding is that socially focused strategies may be an effective tool to managing financial risk and accelerating firm value.

The studies in which mixed relationships were found were next in the hierarchy of importance to those in which positive relationships were observed. The mixed outcome observed in only five of the 30 studies examined, was contingent upon several factors: (1) the nature of the industry studied (Baird et al. 2012; Inoue & Lee, 2011), (2) short-run or long-run horizon (Inoue & Lee, 2011), (3) nature of the particular CSR component tested (Baird et al. 2012; Busch & Hoffmann, 2011), and (4) the nature of the FP measures (Wu & Shen, 2013). Regarding the time horizons, although negative CSR-FP relationship was found in the short run, a positive relationship was observed in the long run (Inoue & Lee). This is consistent with the view that CSR is an investment in intangible asset that takes some time to yield the expected returns (Jiao, 2010). Also, the multidimensional nature of the CSR suggests that individual CSR components are likely to produce different effects on the FP (Baird et al. 2012).

Divergent Relationship Interpretations

The interpretation of the relationship between CSR and FP has also become a crucial factor that now features in the literature. Jensen (2010) drew attention to the prevalent misinterpretation of CSR-FP relation. He claimed that the negative CSR-FP relation could signify investors' confidence in the firm and their preparedness to accept lower returns in the short run or in alignment with their private social responsibility values. However, Jiao (2010) contended that the positive relationship is indicative of the fact that CSR is an intangible investment with potential for value enhancement while the negative relationship may imply the presence of managerial opportunism. It then means

that each study's theoretical and conceptual framework should guide how the result is interpreted.

Geographical and Industrial Concentration of Studies

The geographical setting of the studies revealed a concentration of the CSR studies in the US, as 14 out of the 30 studies reviewed were conducted using the US data. This is in consonance with the widely reported view in the literature that CSR originated in the United States, where formal writings on the CSR have been most evident, and a sizeable body of literature has accumulated (Caroll, 1991).

Many sectors of the economy are still underresearched. The CSR-FP relation in the US banking sector is yet to be specifically tested. Among the 30 recent studies examined, only five were focused on the banking sector, translating to 16.7%, which implies that the effect of CSR on the FP in the banking sector is underresearched. The five banking sector-focused studies relate to Nigeria (Adeyanju, 2012), Iran (Tafti et al. 2012), Jordan (Weshah et al. 2012), Italy (Soana, 2011), and multiple countries including the United States (Wu & Shen, 2013). Thus, none of the studies was specifically focused on the US banking sector, particularly after the 2007-2008 financial crisis despite its global ravaging effects. During the crisis the beta, a measure of systematic risk, of many banking sectors around the world soared simultaneously (Jánský, Adam, & Benecká, 2012), constituting a threat to the survival of the financial sector. It is desirable to examine the effectiveness of the social efforts of the banks in reversing the escalated systematic risk. The other industries specifically focused on are the carbon/energy (Busch & Hoffmann, 2011), the tourism (Inoue & Lee, 2011), the airline (Wang et al. 2015), the

retail and consumer goods (Parsa et al. 2015), the automotive (Ganescu, 2012), and the manufacturing (Saeidi et al. 2015) industries. The results of these industry focused studies vary with the nature of the industries. In the studies that were focused on the banking sector, the CSR-FP relationship found include positive (Adeyanju, 2012; Tafti et al. 2012; Weshah et al. 2012), mixed (Wu & Shen, 2013), and neutral (Dinsmore, 2014; Soana, 2011), depending on the methodology adopted. Researchers found a positive CSR-FP relationship in the automotive (Ganescu, 2012), the retail and consumer goods (Parsa et al. 2015), the airline (Wang et al. 2015), and the manufacturing (Saeidi et al. 2015) sectors. A mixed CSR-FP relationship was found in the carbon/energy (Busch & Hoffmann, 2011) and the tourism (Inoue & Lee, 2011) industries. The fact that none of these studies was focused specifically on the US banking sector is indicative of a gap that needs to be filled to enrich the literature.

Divergent Control Variables

Researchers incorporated control variables in their models in all the recent studies examined, except in Soana (2011) and Weshah et al. (2012) in which the authors excluded control variables in their model for the sake of simplicity of their analyses. Prominent among the variables controlled in the models of the studies reviewed are: size (Saeidi et al. 2015), risk (Jo & Harjoto, 2011; Moura-Leite et al. 2014), banking risk (Wu & Shen, 2013), management preference (Torres et al. 2012), capital expenditure (Gregory et al. 2014), earnings (Lioui & Sharma, 2012; Nandy & Lodh, 2012; Saeidi et al. 2015), firm growth (Cajias et al. 2014; Chen & Wang, 2011), industry (Deng et al. 2013), and year (Inoue & Lee, 2011; Nandy & Lodh, 2012). As shown in *Table 2*, of all these

variables only the size, the risk and the industry factors occurred most in the recent studies.

Table 2

Summary of Control Variables in the Current Literature

S/n	Control Variables	Operationalization	Number of Occurrence in Studies	%
1	Size factors	Total Assets, Sales, Audit Fee	22	29%
2	Risk factors	Debt/Equity Ratio, Leverage, Capital Structure	17	23%
3	Industry factors	Industry classification, sector codes,	10	13%
4	Firm growth factors	Sales growth, EPS growth, asset growth	7	9%
5	Management preference/discretion	R&D, Advertising & Capital Expenditure	7	9%
6	Year	Year	7	9%
7	Profitability & Earnings	Profits, Earnings, EPS, P/E ratio, ROE, ROA, ROS.	5	7%
	Total		75	100%

A major revelation from the review of the current literature from the above is that of the five studies conducted on the banking sector, only Wu and Shen (2013) controlled for the banking risk. I therefore controlled for risk proxied by leverage ratio in this study in addition to the control variables dominant in the above literature.

Study Analytic Tools

The common analytical tools adopted in the studies reviewed were the multiple regression models combined with the structural equations in some cases. The regression models were applied in four ways: (1) as a straight OLS with multifactor analysis for ANOVA tests (Chen & Wang, 2011; Jo & Harjoto, 2011), (2) with the Granger causality

by lagging some variables in order to give an idea of the causal relationship between the CSR and the FP (Cajias et al. 2014; Ghoul et al. 2011; Sun & Cui, 2014), (3) with the Fama-French three factor model (FF3F), and (4) with the Carhart four factor model (4FM). All these were set up and analyzed via multiple regression tools (Deng et al. 2013). Using asset pricing models such as CAPM FF3F and Cahart 4FM is a new dimension in the CSR literature and needs to be refined further.

Summary of Gaps in the Current Literature

Identification of Gaps in Current Literature

A number of gaps are evident in the current literature. First, the tradition of inconsistencies in research findings signifies inadequacy of studies conducted into the CSR-FP interaction. Until a common ground is found, more studies are required to resolve the observed inconsistencies attributed to the methodological shortcomings in the prior studies. Second, the observed prevalent use of composite, aggregated multidimensional measures of CSR in most studies is fundamentally flawed. The possibility of imperfect correlation of individual components of CSR ratings renders the use of composite measures inappropriate with the potential to produce inaccurate results (Goss & Roberts, 2011). In view of this limitation, the studies in which the individual components of CSR are tested tend to be more reliable than those in which the aggregate/composite measures are tested (Goss & Roberts; Wu & Shen, 2013). In spite of this, it is in only a handful of studies that researchers tested the individual CSR components, indicating a significant gap in the current literature. Third, the mixed approach is prevalent in the literature whereby the study data of different industries in

multiple countries are aggregated for the purpose of testing the study models. This is inconsistent with stakeholder theory, as interests and expectations of stakeholders are contextually diverse; they are divergent across the industrial and the geographical settings (Baird et al. 2012; Soana, 2011). Dearth of studies of specific industries and specific countries on CSR-FP relation constitutes a weakness in the current literature that needs to be addressed.

Finally, studies in which CSR-FP relation was tested from the perspectives of market expectations are scanty in the current literature. Of the 30 recent studies reviewed, only four studies were found in which the CSR and cost of capital relation was examined (Cajias et al. 2014; Ghoul et al. 2011; Gregory et al. 2014; Hajiha & Sarfaraz, 2013). Thus, how the CSR studies relate to the cost of finance as a measure of the FP remains an underresearched area. Even though Ghoul et al. (2011) observed that better CSR ratings are associated with lower cost of capital, it is obvious that research into the influence of the business social conduct on financial outcome is generally scanty. Several researchers such as Hajiha and Sarfaraz (2013), Goss and Roberts (2011) and Hajiha and Sarfaraz (2013) have separately called for inquiries into the CSR- financing cost relation, a call I attempted to respond to in this study.

Plan to Fill the Identified Gaps in Literature

Consistent with most studies on the CSR-FP interaction, this study was performed in two modes: even though the individual component CSR measures were tested in the two parts, the first part was focused on the traditional accounting measures of performance using EBITDA margin and MTB ratio. The multivariate regression model

used for this purpose included a number of firm-specific and management preference control variables common in the literature. In the second part of the study, I addressed the effect of the CSR factors on the market-revealed cost of capital relation for the sampled banks using the FF3F model. The insight from the efforts aimed at addressing the enumerated gaps could enable managers and decision makers in banks to allocate scarce corporate resources to social performance in a more effective manner.

Chapter Summary

The literature review conducted in this chapter centered on the stakeholder theory, an alternative perspective to the conventional neoclassical economic theory of social responsibility. The stakeholder theory recognizes the need for businesses to shift emphasis from the stockholders to the other stakeholders, and by so doing the business firm would enjoy the support and the cooperation of the stakeholders to create value and competitive advantage which in the long run should lead to greater value to the stockholders. The stakeholder theory applied in this study was underpinned by the Carroll's (1991) four-part theorem. In the review of the current literature on the CSR-FP relation, several areas of inconsistency in findings were observed, indicating some gaps that need to be explored further.

Necessitated by the need to address some of the identified gaps in the empirical literature, this study was designed in way to minimize the highlighted deficiencies in the prior studies. In chapter 3, I explored the research method and design.

Chapter 3: Research Method

Introduction

The aim of this study was to test the effect of the individual CSR components on the financial performance (FP) of banks in the US, both when the FP is viewed from the accounting returns perspective and also from the market-revealed cost of capital perspective. Because this quantitative study was grounded in the positivist paradigm, multiple regression analysis was used to test the study hypotheses. The detailed account of the methodological issues involved in designing and implementing this dissertation was provided in this chapter. The starting point of the chapter was the description of the philosophical worldview of the study, providing the epistemology and the ontology applicable to the research questions. This was followed by the description of the research design selected, the target population, the sampling method, the instrumentation, the data collection procedures, the research questions, the hypotheses formulation, and the data analysis strategy. I concluded the chapter with the insights of how the output of the statistical analysis was interpreted and a brief summary of the chapter.

The Philosophical Paradigm of the Study

Ontology and Epistemology of the Study

Generally, research is guided by the philosophical worldview that revolves around the ontology and the epistemology of the study. Ontology refers to either the objectivity of the social reality or its subjectivity, that is, whether it is socially constructed (Collis & Hussey, 2009, p. 59). These two ontological views are referred to as objectivism and constructionism, respectively (Creswell, 2009, p. 7). Objectivism presupposes that the

reality is constant and cannot be affected by the researcher or participants (Creswell, 2009). Constructionism is the view that social reality is constructed and is therefore not constant (Creswell). Similarly, epistemology relates to how valid knowledge comes about (Collis & Hussey, 2009, p. 59). Two schools of epistemological thought are the positivists who hold the belief that valid knowledge is observable and measurable and the interpretivist who views valid knowledge as that expressed by the research participants. Following this analysis, quantitative research aligns with objectivism ontology and positivist epistemology based on their deterministic characteristic while qualitative research relates to constructionism ontology and interpretivist epistemology (Creswell, 2009, p. 7).

Selected Guiding Philosophical Worldview of the Study

This study was anchored on the deterministic philosophy of cause and outcomes, in which it was proposed that the firm financial performance would be influenced by the firm's social responsibility practices. This followed the reasoning of the postpositivist epistemological worldview which contends that the knowledge of the world can be scientifically and objectively obtained by reducing ideas into variables that can be tested using numerical measures (Creswell, 2009, p. 7). Such a study entails the use of quantitative research paradigm focused on testing a theory through the specification of the hypotheses and the collection and analysis of numerical data to support or refute such hypotheses. According to Creswell, quantitative design is suitable when there is a need to identify the factors influencing an outcome or to test a theory or a relationship for the purpose of generalizing the findings to larger settings. Theoretically, quantitative design

differs from qualitative or mixed method research paradigms. The qualitative paradigm is useful if little is known about the social phenomenon of study such as the nature of the variables to examine, and the lived experience of the research subjects is then required to provide the needed knowledge through the human construction of the social phenomenon. The mixed methods research is suitable when a better understanding of the phenomenon can be obtained only through the blended strengths of both quantitative and qualitative paradigms by combining the quantitative and the qualitative data which provides opportunity for triangulation (Creswell, p. 18). The qualitative design has been followed in some earlier studies on the CSR-FP interaction such as Heijden, Driessen, and Cramer (2010) and Fernando and Almeida (2012) where case study strategy was used. The recent study by UN Global Compact and Accenture (2013) was conducted using mixed-methods paradigm. Generally, qualitative research provides limited opportunity to generalize findings to other settings.

Description of Research Design

Statistical Design of the Study

Consistent with the quantitative research paradigm, this research was designed as a correlational study where multivariate regression analysis was applied in examining the CSR-FP relation. Based on the research questions in the study, two regression models were used, reflecting the bidimensional nature of a business financial performance measures: the accounting returns and the market-based financial performance measure. In the accounting returns model, EBITDA margin and MTB ratio were used while the

market-determined cost of capital was applied in the market-focused financial performance model.

Unlike in the simple regression where outcome variable is tested against only one predictor, two or more predictors are involved in multiple or multivariate regression. According to Field (2009, p. 210), a multiple or multivariate regression model is suitable where the study involves determining the linear combination of predictors that maximally correlate with the dependent variable. This study was designed to ascertain the linear combination of the CSR factors that correlate maximally with the FP measures of the banks in the US. The idea is to optimize those factors that positively correlate with the FP to create value and deemphasize those that do not significantly correlate positively with the FP in order to preserve value.

Generally, a multiple regression model is typified by the relation: $Y_i = (b_0 + b_1X_{1i} + b_2X_{2i} + \dots b_nX_{ni}) + \varepsilon_i$. Y_i stands for the outcome variable, b_0 represents the model intercept, b_1, b_2 up to b_n represent the slopes of the first, second and the n^{th} predictors, while ε_i represents the residual term. The disturbance term is determined as the variation between the predicted value of Y_i and the corresponding observed value (Field, p.210).

Definition of the Variables of the Study

As a postpositivist research that relies on the empirical validation of knowledge and the objective measurement of the reality, the concepts and the constructs of the study embodied in the research questions were converted into their empirical equivalents through the assignment of some values to define and operationalize the variables of the study.

Frankfort-Nachmias and Nachmias (2008, p. 49) distinguished between three categories of properties of variables in quantitative research as the analytical, the measurement, and the relational properties. According to them, the analytical dimension of the variables shows the role each variable plays in the explanatory scheme of research. In this regard, three kinds of variables are distinguished: dependent, independent, and control variables. The dependent or outcome variable is the variable being predicted while the independent variable is the predictor. The control variables are included in the model in order minimize the extent to which the explanatory power of the model is wrongly attributed to the selected predictor(s). Because the presence of control variables minimizes the disturbance term, the causal link between the dependent and independent variables contained in the hypotheses becomes more established when such confounding factors are adequately controlled for (Frankfort-Nachmias & Nachmias, p. 51).

The measurement dimension of the variable properties relates to whether the variables of the study are measured continuously or discretely. The level of measurement of the variable is important for quantitative research design that relies on the use of statistical tools to analyze the quantitative data of the study. Finally, the relational dimension is about the nature of the relation that exists between the variables. This relation can take directional form (positive or negative) and can also be about the strength or magnitude ranging from lowest magnitude of no relation to highest magnitude of perfect relation (Frankfort-Nachmias & Nachmias, p. 55).

Independent variables of the study.

In this study, the CSR factors were the predictors or the independent variables in the two models: the accounting return and the market performance models. Representing the predictors were the CSR factors relating to community, governance, diversity, employee relation, and product, as part of the 13 KLD MSCI CSR indicators (MSCI, 2015). MSCI provides these 13 CSR indicators in two categories: (i) the seven qualitative screen factors comprising and (ii) the six exclusionary screen factors or controversial business issues consisting of tobacco, military, alcohol, firearms, nuclear power, and gambling. However, I found that KLD MSCI ratings were not available for environmental and human right factors as well as all the exclusionary screen factors. KLD MSCI used the qualitative screens to measure the strengths and the concerns of each of the seven factors in the qualitative category. I described each of the selected factors in detail below.

Community factor.

The community support (COM) factor strengths cover charitable giving activities, donations to support innovation, community engagement, and engagement in notably positive community activities (MSCI, 2015). The COM factor concern measures the gravity of the aspects of the firm's activities in its local communities.

Employee relations factor.

The employee relations strengths indicator measures the firm's fair treatment of its unionized workforce and the effectiveness of its relationship with its employees and suppliers. The employee relations concern indicator measures the company's record of

poor relation with organized unions, the violation of health and safety standards, and engagement in supply chain and other labor-management controversies.

Diversity factor.

The factors relating to diversity strengths include how well the minority and women groups are represented in the firm's decision making and input sourcing as well as the extent of consideration of work/life balance programs in the workplace. The concerns indicator is focused on the diversity related controversies.

Product factor.

The product strengths indicator measures the firm's commitment to quality and safety of its products as well as their accessibility by the economically disadvantaged. Conversely, the product concerns indicators measure the firm's involvement in controversies over the quality of its products or services, including its marketing, customer relations, contracting, and competitive business practices.

Governance factor.

The focus of the governance strengths indicator is on the quality and fairness of the reporting of the firm's activities including its support for public policies, and how these positively impact the stakeholders. Governance related concerns have measures that focus on the incompleteness of firm's social responsibility and sustainability reporting, absence of support for public policies, severity of controversies relating to the firm's executive compensation and governance practices, and issues around the firm's business ethics practices.

Measurement of the independent variable.

KLD CSR ratings of organizations were binary values of 1 if the firm meets the specified criteria and 0 if the firm does not meet the criteria. Researchers have utilized these values in divergent ways. Callan and Thomas (2009) examined the whole of the 13 factors by developing a 5-point scale of +2 to -2 to measure the strengths and the concerns of each factor. Ghoul et al. (2011) considered the qualitative issues and controversial issues separately based on their belief that the two screens are inherently different and may not coexist in the same setting. The authors determined the absolute net scores for each indicator and excluded corporate governance factor based on their operating definition of the construct that precludes any conflict between internal stakeholders and shareholders. Servaes and Tamayo (2013) decimalized the CSR scores and took the net for each indicator; they equally excluded product and corporate governance indicators from their model. Goss and Roberts (2011) warned that strengths and concerns of each CSR factor should be analyzed separately as the omnibus CSR score is a less accurate measure. The observed divergence in the application of CSR scores using KLD ratings compelled me to carefully select a suitable approach in the current study to operationalize the CSR scores that aligned with the research questions of the study.

Consequently, to measure the CSR value of each indicator, the categorical ratings by KLD was scaled using 5-point scale of +2 to -2, with +2 representing two or more strengths, 1 representing one strength, 0 representing presence of neither strength nor concern, -2 representing two or more concerns and -1 representing one concern. Each qualitative indicator was then scored as the net of the strength and the concerns. This

measurement and scaling approach followed the earlier studies of Callan & Thomas (2009), Goss & Roberts (2011), Graves & Waddock (1994, 2000), Hillman & Keim (2001), and Waddock & Graves (1997).

In order to strengthen the predictive capability of the regression models proposed in the study, each CSR component was properly lagged which permitted the testing of Granger causality. Granger causality testing through the appropriate lagging of the independent variables is a growing feature of the current literature. A few of the current researchers that performed Granger causality testing included Choi et al. (2010), Makni et al. (2009), and Scholtens (2008).

Dependent variables of the study.

The financial data which were at interval or ratio level of measurement were used to operationalize the dependent or outcome variables in the two models of this study. These data included both absolute values and constructed ratios. The absolute values were standardized using their natural logarithms to make them appropriate for the linear regression analysis, an approach that is equally common in the literature.

Accounting-based financial performance model.

In the accounting returns model, EBITDA margin and MTB were regressed against the CSR factors. EBITDA margin has been tested by a number of researchers including Gregory et al. (2014) and Saeidi et al. (2015). MTB represents the constructed ratio of market price per share to the book value per share, an approach that was recently tested empirically by Hajiha and Sarfaraz (2013) and Wu and Shen (2013). Both accounting returns are included in the published financial statements of banks and are

also included in the returns filed with companies registry. The financial data for these variables in respect of the sampled banks were obtained from the Bankscope database.

Market-based cost of capital model.

In this model, the equity capital cost of the banks as a measure of financial performance was individually regressed against the lagged CSR factors. In this study, the cost of capital was determined based on the Fama-French three-factor (FF3F) asset pricing model, which considers three risk factors of market risk premium, size premium, and growth premium to determine the required rate of return by the investors. FF3F is considered to be superior to the traditional single-factor CAPM (Fama & French, 1993). Using a similar approach, Ghoul et al. (2011) empirically tested the CSR on the equity capital cost of industries in the US.

Control variables of the study.

Consistent with the current literature, the accounting returns model included five control variables: the size, the risk, the growth, the preceding year accounting financial performance, and the management preference. Size, preceding year's accounting financial performance, and the management preference factors were addressed by Lioui and Sharma (2012), Torres et al. (2012), and Yang et al. (2010), while risk was a considered control variable in Wu and Shen's (2013) study. In terms of operationalization, the size was measured as the absolute value of the total assets but standardized by natural logarithm, the preceding year's accounting FP was the preceding year's EBITDA margin or MTB as applicable, the management preference was measured

as the ratio of capital expenditure to total assets, and the risk was measured as the leverage ratio.

The control variables in the cost of capital model included total assets, asset growth, market capitalization, leverage, EBITDA margin, MTB, and capital expenditure to total asset ratio. These control variables were also based on the financial data that were included in the published financial statements of the banks, accessed through the Bankscope database.

Target Population

The unit of analysis in this study was banks and the population of interest (target population) was the listed banks in the United States. The findings of the study could be generalized to the ethically rated listed banks in the country. I accessed the ethically rated banks in the US from the KLD database. According to the Federal Deposit Insurance Corporation (FDIC) (2014), there were 6,730 insured banks in the US. Regulated by the Federal Reserve System, the US banking industry comprises the national banks, the regional banks, money center banks, savings and loans and credit services banks. The industry has been undergoing several challenges, the latest of which was the aftermath of the subprime mortgage crises leading to closure of a large number of banks during post-crisis period. Faced with this situation, close attention to soft issues like social responsibility of banking business becomes a critical recovery and defensive strategy for most banks.

KLD Research and Analytics Inc. regularly publishes social ratings of the large listed US companies numbering over 3000. The rated firms cut across all industries

including the financial services sector. In this study I extracted the list of the ethically rated listed banks, which also had complete financial and stock market data to form the study sample.

Sampling Method

Sampling Design and Sampling Frame

A single stage sampling design was adopted in this study since there was access to the names in the population (Creswell, 2009, p. 148). The banks that formed the sample of the study were drawn from the actual population of the ethically rated banks, which also had the requisite financial and stock market data. The banks were selected from the list of the US banks included in the Socrates Database of KLD Research and Analytics Inc. To be retained the banks must also have the relevant financial information in the Bankscope database and share price information Yahoo! Finance database. This requirement was necessary so as to minimize the tendency of missing data for the purpose of the SPSS analysis. The constructed sampling frame of the study was therefore defined as the KLD rated US banks, with the requisite financial data in the Bankscope database and share price information in the Yahoo! Finance database.

Annually, the ethical ratings of the corporations are provided in the form of binary representation for performance indicators contained in an excel spreadsheet. Meeting an established criterion for a rating is indicated as 1 in the excel spreadsheet cell under that indicator while failure to meet criteria established for a rating is indicated with a 0 in the excel spreadsheet cell under that indicator. In situations where an indicator has not been researched for a particular company, this is indicated by “NR” (not rated) in the excel

spreadsheet cell of that indicator. The ethical ratings are based on mixed methodology including survey questionnaires, interviews of the relevant stakeholders, and analysis of the content of the published social information. The ratings are therefore robust.

Following the acquisition of KLD by MSCI ESG Research, significant rating methodologies were introduced from 2010. This principally entails the introduction of industry specific ESG rating templates for each of the seven ESG ratings categories and effectively ensures that ratings are researched for companies that are relevant to the industry.

Fundamentally, the KLD data obtained included the entire 3,000 US largest companies by market capitalization. This compels a need to isolate those companies that are outside the banking industry, to have a sampling frame that contained only the list of banks that were ethically rated. The number was later pruned by the availability of the requisite financial and stock market data for each of the ethically rated banks.

Sample Size, Statistical Errors, and Threats to Statistical Conclusion Validity

The need for generalizability of the findings of this study requires that the selected banks adequately represent the population being studied. Representativeness of the population implies that the sample statistics ought to reflect the population parameters as closely as possible. A way to ensure this is to select a sample size that is adequate (Trochim, 2008). Determining adequate sample size is best achieved by conducting power analysis, based on some standard parameters such as the alpha level, the power level, the test type, and the effect size of the explanatory variables (Rudestam & Newton,

2007, p. 93). Generally, power analysis provides insight to the sample size considered to be appropriate for the detection of effects resulting from the predictors.

Even with the adequate sample size, the threat to conclusion validity still exists, i.e., that the conclusions from the test procedures may be different from the conclusions that may be drawn if the statistical procedures are applied to the entire population of interest. This development is referred to as sampling risk. Practically, sampling risk is the risk that the conclusion to be drawn from the sample test would be different if the same test procedures were applied to the entire population. In other words, sampling risk is the risk of incorrect conclusion drawn from the sample because of the presence of statistical errors. Such statistical errors are of two categories: Type I and Type II errors, both of which directly depend on the null hypotheses. The consideration of these errors underscores the importance of selecting a sample that truly represents the population.

Also called an error of the first kind, Type I error arises from rejecting the H_0 when H_0 is true, implying false positive. The chance of committing Type I error is measured by the alpha or the significance level (α) of the test, which is statistically taken as the complement of the confidence level. Conventionally, a 5% chance is allowed for a Type I error occurring in a test (Cohen, 1992).

Conversely, Type II error arises from the failure to reject the H_0 when H_0 is false, implying false negative. Rudestam and Newton (2007, p. 95) attributed such error to the inadequate power of the study. Because the selected level of power gives an indication of the risk of the presence of the Type II error in the study findings, it is important to avoid an underpowered situation which may lead to obtaining nonsignificant findings.

Statistically, Type II error is denoted by beta (β). As the complement of β (or 1- β), the power of the test is related to the Type II error. Unlike in the case of the error of the first kind, the general convention is to allow a 20% chance of the Type II error in a study, which translates to the power level of 80% (Cohen, 1992).

The implication of false positive or the Type I error occurring in the current study is that it may lead to overinvestment in the CSR projects. Although, the firm may perceive overinvestment in CSR as destructive to business value, however, such investment is desired by the society. According to Friedman (1970), voluntary commitment of corporate resources to a social course without expecting value in return is the central theme of pure CSR. On the other hand, the implication of the false negative or the Type II error occurring in this study is that it may lead to underinvestment in the CSR initiatives, which is detrimental to societal aspirations and sustainable development. From the societal perspective, underinvestment in CSR implied by the Type II error in the context of this study is more devastating than overinvestment in CSR implied by the Type I error. This study is therefore designed primarily to reduce the risk of committing the Type II error, by increasing the power level beyond the conventional 0.8 level. This goes a long way in mitigating the threats to the conclusion validity (Trochim, 2006).

According to Cohen (1992), an increase in the desired power level beyond the conventional 0.8 entails increased sample size and reduced alpha level with a caveat that the increased sample size may be constrained by the research budget. In view of the budget constraints, I limited the power level to the conventional 0.8, translating to 0.20

chance of the error of the second kind. I also limited the alpha level to the conventional 0.05 for this study.

Consequently, in determining the sample size that is representative of the actual population I relied on the running of the version 3.0.10 of G*Power Analysis. This procedure returned a sample size of 92 banks to be selected from the sampling frame. The G*Power analysis was based on the selection of the *F* test as Family Test for the multiple regression model, R^2 deviation from 0, and power analysis of "A priori: Compute required sample size - given alpha, power, and effect size". The analysis was also based on the 0.15 medium size effect, the alpha of 0.05, and the power of 0.8. However, only 71 banks could be selected because of the need to ensure that the ethically rated banks also had the requisite financial and stock market data. A sample size of 71 banks was considered adequate for this study, as it was an improvement over some earlier studies that used much less sample size. Fomukong (2014) selected 50 companies to examine the relationship between CSR and EVA in the US context.

Instrumentation

As noted in chapter 2, there is no generally accepted method of measuring CSR performance of firms, a development that led researchers to adopt multiple measures for the evaluation of firms' social performance. Some researchers adopted direct measurement through questionnaires administered to the stakeholders, some measured the CSR performance of their subjects through a unidimensional measure such as spending, reputation, or environmental practices, while others adopted multidimensional ethical ratings using the third-party provided social responsibility ratings. In this study I

adopted such third party developed measures for social responsibility of banks in the United States. In this regard, the CSR ratings performed and archived by KLD Research and Analytics Inc. were used to assess the social responsibility performance of the banks in the US. KLD CSR rating has become popular among empirical researchers as its preponderance was revealed in chapter 2.

I also utilized secondary financial data in this study to measure the dependent variables and the control variables. As secondary data, the financial data were accessed from the Bankscope database, as they are also contained in the published financial statements of public interest entities including banks. Thus extensive reliance was placed on the third-party sources for the data used in this study.

I am not oblivious of the potential limitations inherent in the use of third-party archival data for research such as the problem of missing, incomplete or compromised data, the problem of inadequate data, and the possible challenge of lack of access to the proprietary database belonging to the third party owner (Rudestam & Newton, 2007, p. 101), as well as the enormity of the financial cost of access where available. In order to obviate these challenges, I defined the sampling frame such that any case with incomplete data was excluded from the sample.

Data Collection Procedures

As a secondary data analysis, archival data used for this study are privately owned. The data to be used are in three categories: (1) the CSR ratings on the ESG factors of the banks, (2) the financial data comprising the absolute values and the constructed ratios for the banks that constitute the subjects of this study, and (3) the stock

market data. The proprietary CSR ratings of the research subjects was obtained from the KLD's Socrates database after obtaining the access. The financial data were obtained from the Bankscope database and the stock market data were downloaded from the Yahoo! Finance database which were publicly available. I am aware of my responsibility to secure these data for the prescribed period after the approval of the study.

Research Questions

Consistent with the statement of the problem and the purpose of this study, two research questions were advanced, with focus on the effect of the individual CSR factors of the accounting returns and the market-revealed cost of capital of the banks, as measures of financial performance. The research questions are restated as follows:

> Research Question 1: To what extent can individual CSR components predict bank accounting performance, controlling for the effects of bank unique and management preference factors?
>
> Research Question 2: To what extent can individual CSR components of banks help in predicting the banks' cost of capital?

In the Research Question 1, the unique factors considered as control variables were firm size, risk, growth, and prior financial performance while the management preference factor considered as control variable was the capital expenditure relative to the total asset value. These factors were measured in financial terms, although the absolute values like the value of total assets that measures the size of each bank were standardized by their natural logarithms. In both research questions, the independent variables were the individual KLD CSR factors under qualitative screens.

Hypotheses Formulation

To answer the two research questions posed in this study, two hypotheses were tested. The central aim of the statistical test of hypotheses was to determine if the null hypotheses in each case could be rejected, so that the speculative, alternative hypotheses could be accepted (Fisher, 1935, p. 19). However, the extent of correct rejection or non-rejection of the null hypotheses given the reality of the state of the entire population determines the chances of Type I and Type II errors, which have been extensively considered in this study. The two hypotheses are described as follows.

Hypothesis 1

To address the first research question on the effect of the individual CSR factors on the accounting returns of the sampled US banks controlling for the bank unique factors of size, risk, growth, and past FP and the management preference factor of capital expenditure, the null hypothesis (H_0) and alternative hypothesis (H_1) were specified as:

> $H_0$1: The individual CSR components of banks cannot predict the banks' accounting performance after controlling for the effects of the firm unique and the management preference factors.
>
> H_a1: The individual CSR components of banks can predict the banks' accounting performance after controlling for the effects of the firm unique and the management preference factors.

Hypothesis 2

The second research question is on the effect of the individual CSR factors on the bank financing cost as a measure of financial performance, also controlling for the effects of the firm unique and the management preference factors. The null hypothesis (H_0) and alternative hypothesis (H_1) were restated below.

$H_0$2: The individual CSR components of banks cannot predict their cost of capital.

H_a2: The individual CSR components of banks can predict their cost of capital.

Consistent with Fisher's (1935, p. 19) views, because the null hypotheses were phrased in a way that permitted their rejection, I speculated that the alternative hypotheses would be accepted if the corresponding null hypotheses were rejected. The associated statistical errors in terms of the chances of incorrect rejection of a true H_0 and failure to reject a false H_0 have been adequately considered in this study. I considered that the chance of Type I error (or alpha level) set at the conventional alpha level of 5% and the chance of Type II error set at the conventional 20% level were appropriate for this research. The aim of these measures was to preserve the reliability and generalizability of the conclusions to be drawn from the outcome of the statistical tests performed.

Data Analysis

The secondary data of this study were analyzed by means of multiple regression analytical tool, a dominant strategy in the recent empirical literature on this topic. Consequently, two empirical models were presented: accounting returns model and

market-based cost of capital model. I used IBM SPSS Version 21 for the statistical analysis to test the models.

Models of the Study

The two models in the study were to assist in testing the null hypotheses advanced with a view to answering the research questions posed. The models related the outcome variables to the predictors and the control variables with a provision for the statistical disturbance terms. The models were described below.

Accounting returns model. The first research question focused on the effect of the individual CSR factors on the accounting returns of the sampled banks controlling for the bank unique factors of size, risk, growth, and past FP and management preference factor of capital expenditure. I examined this research question by applying the multiple regression model specified in Equation 4.

$$FP_{it} = \beta_0 + \beta_1 CSR_{jit-1} + \beta_2 LogTotAsset_t + \beta_3 Lev_t + \beta_4 AssetGrowth + \beta_5 LogFP_{it-1} + \beta 6 CapexR + \varepsilon_{it} \quad (4)$$

where:

Subscripts	=	Index of bank *i*, time *t*, and CSR component *j*
FP_{it}	=	Financial performance for each US bank, measured as EBITDA margin and MTB ratio separately
β_0	=	Model intercept
β_1	=	Slope of rating score of each CSR component
$B_{2...5}$	=	Slope of each control variable

CSR_{jit-1}	=	Lagged rating score of CSR component *j*
FP_{it-1}	=	Preceding year's FP (ROA or Net-Earnings)
$TotAsset_t$	=	Total Assets measuring the size of each bank
Lev_t	=	Leverage ratio
AssetGrowth	=	Ratio of total asset in the current period to the total assets during the preceding period.
$CapexR_t$	=	Ratio of capital expenditure to total asset to measure management preference.
ε_{it}	=	Statistical disturbance term

Although there were several empirical inquiries into the impact of the CSR on the accounting based FP such as Callan & Thomas (2009), Choi et al. (2010), Deng et al. (2013), Jo & Harjoto (2011), and Wu & Shen (2013), in most of such studies aggregate perspective was adopted, covering multiple industries and multiple countries, leading to the use of condensed CSR scores. The studies using the aggregated approach were tainted by the likely imperfect correlation of the individual CSR components (Scholtens, 2008) and were also likely to lead to inaccurate CSR scores that compromise the results (Goss & Robert, 2011). In order to obviate this challenge and also in line with the fact that stakeholders' need is conceptually contextual, a more appropriate approach was to decompose the CSR scores by focusing on the individual components which underscored a need for examining this research question and the use of the accompanying model.

In this model, two dependent variables (EBITDA margin and MTB) were separately tested in line with the current practice of the empirical research on the topic. Thus in the first trial, the EBITDA margin was regressed against the CSR components and the control variables in the Equation 4 and in the second trial, the MTB was regressed against the CSR components and the control variables also in the Equation 4. The outcome of each trial was separately and independently interpreted which enabled the unique conclusions made.

Market revealed cost of capital model.

The second research question had to do with the effect of the individual CSR factors on the market revealed cost of capital as a measure of financial performance, controlling for the bank unique factors (total asset volume, asset growth, Leverage, EBITDA margin, MTB ratio, and market capitalization) and the management preference factors (the ratio of capital expenditure to total asset). In this regard, the cost of capital used was based on the revealed required rate of returns revealed in the stock market reflecting the premium for the systematic risk, premium for size and premium for the growth factor based on the Fama-French three-factor model. I therefore used the regression model specified in Equation 5 to examine this research question.

$$FF3FCOC_{it} = \beta_0 + \beta_{1j}CSR_{ijt-1} + \beta_2 LogTotAsset_t + \beta_3 LEVERAGE + \beta_4 ASSETGRTH + \beta_5 EBITDAMgn + \beta_6 MTB + \beta_7 CAPEXR + \beta_8 LogME + \varepsilon_{it} \quad (5)$$

where,

Subscripts	=	Index of bank *i*, time *t*, and CSR component *j*
$FF3FCOC_{it}$	=	Cost of capital calculated using Fama-French three-factor approach
β_0	=	Model intercept
β_{1j}	=	Slope of CSR component *j*
CSR_{ijt-1}	=	Lagged rating score of CSR component *j*
MTB	=	Current period's MTB ratio
EBITDAMGN	=	EBITDA margin
LogTotAsset	=	Natural logarithm of total assets.
Leverage	=	Ratio of debt to total asset, measuring leverage ratio.
AssetGrth	=	Ratio of total asset in the current period to the total assets during the preceding period.
CapexR	=	Ratio of capital expenditure to total asset to measure management preference.
Log_ME	=	Natural logarithm of market capitalization
ε_{it}	=	Stochastic error term, assumed to be independent and insignificant, with a mean of 0 and standard deviation of 1.

The cost of capital was determined based on the Fama and French (1993) formulation of the required rate of return reflecting the market premium, risk premium and growth premium, which is represented in the model in the *Equation 6* below.

$$E(R_i) - R_f = b_i[E(R_m - R_f)] + S_i\,E(SMB) + h_i\,E(HML) \quad (6)$$

where,

$E(R_i)$	=	Expected rate of return on stock portfolio (same as cost of equity).
R_f	=	Risk-free rate of return.
$E(R_m-R_f)$	=	Expected excess return on the market index
b_i, S_i, h_i	=	Slopes of the variables or beta values.
E(SMB)	=	Expected value of the difference between the excess return on a portfolio of small stocks and the excess return on a portfolio of big stocks.
E(HML)	=	Expected value of the difference between the excess return on a portfolio of high book-to-market stocks and the excess return on a portfolio of low book-to-market stocks.

Many researchers have examined the relationship between the CSR and the market-determined financial returns, but only a few have addressed the effect of the individual CSR components on the financing cost of firms, banks in particular. Ghoul et al. (2011), Goss and Roberts (2011), and Hong and Kacperczyk (2009) alluded to this fact in their separate calls for future CSR studies with focus on financing cost, which underscored the essence of examining this research question.

As in the accounting-based financial performance model, the dependent variable (cost of capital) was separately tested in this model in line with the current practice of the empirical research on the topic. Therefore, the FF3F-based cost of capital was regressed

against the individual CSR factors in the *Equation 6*. The outcome interpreted to produce appropriate conclusions.

Testing the Assumptions of Multiple Regression Analysis

Multiple regression analysis, which dominates the current empirical literature, is based on a number of assumptions. According to Field (2009, p. 220), these assumptions must be checked to be true before any meaningful conclusion is drawn about a population. Field explored nine of these assumptions: (1) measurement of variables, (2) presence of variance, (3) absence of perfect multicollinearity among the predictors, (4) no strong correlation between the predictors and the external variables, (5) presence of homoscedasticity, (6) lack of autocorrelation of error terms, (7) normally distributed errors, (8) independence of data, and (9) linearity of relationship. Greene (2012, p. 56) added full rank to this list. I described each of these assumptions below and explained how it was tested in this study in order to permit the generalization of the conclusions drawn from the tests based on sample data to the entire population.

Measurement of variables.

Multiple regression analysis requires the predictor variables to be measurable at interval level or categorical (binary) variables. It also requires the outcome variable to be measurable at interval level or continuous, but most importantly to be unbounded, without any variability on the outcome. The secondary data used as the independent variables met this requirement. The indicators of the CSR components available in the KLD database were categorical values of 1 where the performance criterion is met and 0 where the performance criterion was not met by the subject. Some prior researchers

transformed these categorical values using 5-point scale of +2 to -2, with +2 representing two or more strengths, 1 representing one strength, 0 representing the presence of neither strength nor concern, -2 representing two or more concerns and -1 representing one concern. Such recent researchers include Callan and Thomas (2009) and Goss and Roberts (2011) as well as the much earlier studies of Graves and Waddock (1994, 2000), Hillman and Keim (2001), and Waddock and Graves (1997). As done in the earlier studies, I measured the CSR value of each indicator by scaling the KLD categorical ratings, based on the net of the strength and the concerns.

Non-zero variance.

The predictors are expected to have some variation in value; their variances should not be 0. Because, the CSR values to be used as predictors were transformed to interval level, they had variation in value, which satisfied this assumption.

No perfect multicollinearity.

Multiple regression analysis does not allow perfect linear relationship between the predictors, meaning that independent variables are not allowed to correlate too highly, though some moderate correlation may not noticeably distort the regression results. In this study, running multiple regression analysis in SPSS generated a table of the significance of correlation among the independent variables. I checked to ensure that none of these correlations was significant in order to satisfy the assumption of low multicollinearity.

Predictors are uncorrelated with external variables or disturbance term.

In order to ensure reliability of conclusions drawn from multiple regression analysis, predictors should not correlate with external variables or with the disturbance terms where external variables are subsumed in the disturbance terms. This implied that the predictors should not be a relevant factor in the prediction of the disturbance terms or the external variables.

Homoscedasticity.

This assumption of multiple regression is that variance of the residuals (or disturbance terms) at each level of predictor is constant and equal. In other words, heteroscedasticity – where variances are unequal – violates the assumption of multiple regression analysis and should be tested. SPSS helped to check that this assumption was not violated while testing the regression model with the study data.

Lack of autocorrelation.

Multiple regression analysis does not allow disturbances at different levels of observation to correlate with each other or to be dependent on each other. Field (2009, p. 220) recommended testing this assumption with the Durbin-Watson test. Durbin-Watson test is a statistical procedure for detecting presence of serial correlations between disturbance errors/terms. I performed Durbin-Watson test in each regression model of this study.

Normally distributed errors.

In multiple regression analysis, randomness of residuals and normal distribution of variables with a mean of 0 are basic assumptions. The residuals represent the difference between the observed value of the dependent variable and its calculated value

based on the model at each level of observation. These differences should be close to 0, and when this happens it confirms that the model is strong. I performed this test using residuals plot to confirm that the residuals have a mean that is close to 0.

Independence.

Multiple regression analysis assumes that the values of outcome variables come from separate entities, and are therefore independent. The assurance that this assumption was met was provided by the sampling frame which comprised different banks that were ethically rated.

Linearity.

The multiple regression analysis specifies a linear, straight line relationship between the outcome variable and the predictors, with a constant slope. The essence of this assumption is to permit fair generalizability of the findings. According to Field (2009, p. 247), linearity assumption is tested by a scatter plot of *ZRESID against *ZPRED. If there is no curve pattern in the scatter plot, then the relationship is linear and the assumption of linearity is met.

Full rank.

It is assumed in multiple regression analysis that no exact linear relationship exists between any of the independent variables. According to Greene (2012, p. 56), this assumption is necessary for estimation of the parameters of the regression model.

Method of Entering Predictors into SPSS

In entering the predictor variables into the SPSS, I was guided by the common approach in the empirical literature. The empirical literature revealed that the qualitative

screens factors are commonly tested and known by researchers without any order of importance. Hence, hierarchical (blockwise entry) method of entering data into the SPSS is more appropriate for this study and was adopted. According to Field (2009, p. 212), hierarchical method requires that the known predictors are entered first followed by additional predictors. Thus, I entered the control variables first followed by the CSR factors. However, the control variables and predictors were entered as a block, implying a forced entry approach (Field).

Interpreting the Output of the Multiple Regression Analysis

For the purpose of testing the two hypotheses, the statistical alpha *p* value was set at 0.05. The decision to reject or not to reject the H_0 in both cases was guided by the computed statistical significance value which was compared with the set *p* value of 0.05. Where the computed significance value was less than the set 0.05, the relationship was deemed to be significant and the H_0 was rejected in favour of the H_a. Similarly, where the computed significance value exceeded the set 0.05, the relationship was deemed to be not statistically significant, so the H_0 was not rejected. The other important results of the analysis were the signs and size of the coefficients of each CSR component. A component with positive coefficient showed positive relationship with the outcome variable while a component with negative sign indicated negative relationship of the component with the outcome variable. Finally, the strength of the relationship between the variables was measured by the size of the predictor's coefficient. This was achieved by comparing the computed level of significance of the coefficient of each predictor with the set *p* value of 0.05. A correlation coefficient was interpreted as: a coefficient in the

range .10-.30 was taken as low correlation, a coefficient in the range .40-.50 was taken as moderate correlation, and a coefficient of .60 and above was taken as high correlation.

Summary

In this chapter, I provided a direction of the study by articulating the philosophical assumptions and paradigms guiding the research. The quantitative research design used was also described and justified in the context of the literature. I identified the variables of the study, justified their selection and explained how they were operationalized. An insight was provided into the characteristics of the target population, where the population was located, as well as how the sample was drawn from this population with the explanation of how the sample size was determined based on the assessment of the practical implications of the statistical errors and the availability of complete data. The chapter also included the details of the method adopted in gathering the required data and how this data were analyzed. To conclude the chapter, I restated the hypotheses of the study, described how they were tested, explained the assumptions of the regression model and how these assumptions were tested. I also explained how the variables were entered into the SPSS as well as how the outputs of the SPSS regression analysis were interpreted. This chapter provided a basis for chapter 4 of the dissertation which focused on the results of the analysis.

Chapter 4: Results

Introduction

In this study, I examined the relationship between corporate social responsibility (CSR) factors and financial performance indices in the banking sector of the United States. The purpose of this quantitative study was to contribute to the ongoing debate as to whether corporate social conduct has any effect on the financial performance of business organizations, and if it does, to understand the nature and significance of such effects. I envisaged that a good understanding of this relationship might empower business managers with the essential information they require for their routine resource allocative decisions. The emphasis of the study of the CSR was on both the accounting performance measures and the market-based financial performance measures, which are yet to be adequately addressed in the literature.

Two research questions were proposed in this study. The first question was focused on the extent to which the individual CSR factors could predict the bank accounting performance when the effects of the bank unique and management preference factors are controlled. On this question, a bidimensional view was taken of the accounting performance: MTB ratio which integrates market-based performance indicator with book-based indicator and EBITDA margin which is purely book-based. The second question was whether the individual CSR factors of banks could help in predicting the banks' cost of capital. The paucity of research into the market-based financial performance measures in general and financing cost in particular was

instrumental to the choice of market-revealed cost of capital as a measure of financial performance in the study of CSR.

As required of a scholarly study, a hypothesis was proposed for each of the research questions and the hypotheses were subjected to statistical testing. In Hypothesis 1, I suggested that the individual CSR factors could predict the banks' accounting performance. In Hypothesis 2, I suggested that the individual CSR factors of banks could predict the banks' cost of capital. In both cases, the effects of the bank unique and management preference factors were well controlled to minimize the potential bias resulting from the interaction of these factors with the firm financial performance indices. As a factor analysis, both hypotheses were modelled using multiple regression statistical tools. The outcome of the statistical testing and modelling of these hypotheses is presented this chapter.

Organization of Chapter 4

As a transitional material for the discussion of the study findings to provide insights for further advancement of academic inquiry on CSR, this chapter was focused on the discussion and interpretation of the findings from the statistical analyses performed on the collected data. The chapter was structured into four sections: (a) data collection, where I described how the data was collected, the timeframe as well as other conditions stipulated in the approval to collect data, and data collection outcome vis-à-vis the plan; (b) descriptive statistical analysis of the collected data, where I discussed the outcome of subjecting the collected data to basic statistical analysis and, based on the outcome of the analysis, considered the relevance of the data for the study; (c) inferential

statistical data analysis, where I discussed the findings from the statistical analyses performed based on the hypotheses of the study; and (d) summary of results, where I bring all the findings on the descriptive and inferential analysis together and indicated a transition to chapter 5.

Data Collection

IRB Approval for Data Collection

I obtained the IRB's approval for this doctoral capstone, with the approval No. 11-20-15-0158708. The approval was contingent upon my adherence to the procedures described in the application requests, which emphasized strict compliance with ethical requirements for Walden doctoral capstone. In collecting the data, I was strictly guided by the details of the IRB procedures. I commenced the data collection from the various sources after the approval was granted and concluded it within 6 weeks of receiving approval.

Sources of Collected Data

As stated in chapter 1 and chapter 3, this study was conducted using secondary data of different types from multiple sources. The CSR ratings which formed the independent variables of the study were obtained from MSCI ESG Research Inc. The financial data which formed the dependent variables and control variables were obtained from the Bankscope database, based on the mandatory returns filed by the individual organizations. Stock price data were obtained from the Yahoo! database based on their daily price publications. Finally, I obtained the beta (a measure of systematic risks of

firms) of the sampled banks from the Yahoo! Finance database to aid in the computation of the cost of capital used in testing the study hypotheses.

Apart from Yahoo! Finance, which is publicly and freely available, I obtained the required permission from the respective database organizations before I could gain access to the other data sources. Some of these sources required payment of registration and subscription fees before I could gain access to the data. The starting point was to select the sample banks that had been socially rated by the MSCI ESG Inc.

US Financial Services Sector and MSCI Socially Rated Banks

Financial data were available for 5,535 financial service providers in the United States based on the mandatory periodic returns filed with the company registry, but not all of these firms were socially rated by MSCI ESG Inc. MSCI publishes social ratings for over 3,000 large companies in the United State, covering different sectors of the economy, though I observed that social ratings were available for only 370 of the firms that provide banking related services including credit services, savings & loan, money center banks, and regional banks subsectors. The subsectorial composition of the financial service providers for which CSR ratings data were available is presented in Table 3.

Table 3

Sectorial Composition of Banks with CSR Ratings

S/n	Subsector	No. of Firms	Proportion
1	Credit services	129	35%

2	Savings & loans	31	8%
3	Money center banks	41	11%
5	Regional banks	192	45%
	Total	370	

Selection of Sample

In chapter 3, I proposed a sample size of 92 banks based on random selection. The sampling frame comprises the banks that (a) were socially rated by MSCI, (b) had complete financial data in the Bankscope database, and (c) were listed on the US stock exchange (NYSE or NASDAQ). Although financial data were available for 5,535 financial service providers in the United Stated, MSCI ratings were available for only 370 large banks. Further reviewed showed that complete financial data were not available for 207 of the CSR-rated banks and stock information was also not available for another set of 92 CSR-rated banks. The unavailability of the essential information necessitated that these 299 banks (207 plus 92) be dropped from the sampling population. The sample of this study therefore comprised the remaining 71 banks. The sampled banks, which cut across four subsectors of the US finance industry, were geographically spread across the country. The sectorial and geographical distribution of the sample is presented in Table 4. The complete list of the banks is detailed in Appendix B.

Table 4

Sectorial Composition of Sample

Sector	No. of firms	Proportion
Credit Services	9	13%
Foreign Money Center Banks	1	1%
Foreign Regional Banks	2	3%
Money Center Banks	5	7%
Regional - Mid-Atlantic Banks	5	7%
Regional - Midwest Banks	13	18%
Regional - Northeast Banks	5	7%
Regional - Pacific Banks	8	11%
Regional - Southeast Banks	5	7%
Regional - Southwest Banks	7	10%
Savings & Loans	11	15%
Total	71	

A sample size of 71 banks was considered to be large. Review showed that the selected banks had complete CSR ratings, financial data, and stock market data required for the study. I did not encounter any situation relating to missing data. The 71 sampled banks were listed on the stock exchange, 15 on NYSE and 56 on NASDAQ.

MSCI Socially Rated Banks

MSCI CSR ratings covered the seven qualitative screens of community, governance, diversity, employee relation, product, environment and human right and the three exclusionary screens of alcohol, gambling, firearms, military, nuclear power, and

tobacco. However, a review of the available information for the banking sector on the database showed that ratings were available only for community, governance, diversity, employee relation, and product. The banks were not rated for environment and human rights as well as the exclusionary factors, apparently due to the nature of the banking industry.

The independent variables of the study were therefore restricted to the five CSR factors of community, governance, diversity, employee relation, and product for which ratings were available. The available ratings were in the form of 0 or 1, indicating the firm's performance under each factor element. Like many other researchers, the difference between the sums of strengths and concerns under each factor was used as the score for that CSR factor. The binary ratings were then transformed using natural logarithms to make them suitable for regression analysis.

The observed peculiarity of the selection of the sample, based on the intersection of three independent databases (MSCI, Bankscope, and Stock Exchanges), in no way diminishes the external validity of the research. The joint availability of data from the three independent sources for each of the selected bank is to a large extent random since the data sources were completely independent.

Inclusion of Covariates in the Regression Models

The two research hypotheses in this study were tested using factor analysis based on multiple regression models. Three dependent variables were involved in the study comprising EBITDA margin, MTB ratio, and Cost of Capital based on Fama-French three factor model consisting of premiums for systematic risk factor, size factor, and

value factor when determining the investors' required rates of returns. Each of the dependent variables is a measure of financial performance. While EBITDA margin, a purely accounting return, is capable of being manipulated by management, MTB ratio is also subject to potential manipulation through the determination of the book value per share. But cost of capital is entirely market determined, devoid of potential manipulation by management. The CSR factors were rated by independent organizations based on a number of criteria some of which were based on surveys, publications, and expert opinion. Following the independent determination of the dependent and the independent variables, it is not unreasonable to claim that the social performance when significant should influence the financial performance. But it has been established in the prior literature that some financial factors largely explain financial performance measures. This suggests that the known confounding financial factors be controlled in the study. This was the basis of controlling for size in terms of asset volume, growth in terms of asset growth rate, previous year's performance, market capitalization, and capital expenditure. Data were collected on each of these covariates and their effects on the dependent variable were isolated to permit a reasonable testing of the effect of the CSR factors on the financial performance measures. The univariate properties of the individual variables are presented in Table 5.

Table 5

Univariate Properties of the Study Variables

Variable	Minimum	Maximum	M	S.D.	N

EBITDAMgn	.0028	.8026	.290181	.1920500	71
MTB	.0693	3.5263	1.0539	.5318848	71
FF3FCOC	.0569	.1905	.10922	.02452	71
COMscore	1.3863	2.0794	1.6130	.16305	71
GOVscore	1.0986	1.7918	1.6821	.1570	71
DIVscore	1.3863	2.0794	1.6314	.1959	71
EMPRscore	1.3863	1.7918	1.5631	.1119	71
PRODscore	.6931	1.6094	1.5902	.1142	71
LogTotAsset	20.7649	25.0842	22.4800	.9547	71
ASSETGRTH	.6506	.9775	.8030	.0606	71
CAPEXR	-.0509	.0000	-.0027	.0071	71
$EBITDAMgn_{t-1}$	.0033	.8311	.29166	.1973	71
MTB_{t-1}	.0603	3.5289	1.0201	.5344	71
Leverage	.0024	.3863	.0965	.0459	71
LogME	17.7443	24.1239	20.4691	1.2405	71

The statistical variation in these variables was further explored in the descriptive statistical analysis supra.

Plan Implementation Challenges

While implementing the research plan I did not encounter any serious challenge that could warrant a significant change in the methodology. I was only confronted with data unavailability which compelled me to refocus on the operationalization of variables

and also to drop the contemplation to examine the whole of the 13 CSR factors as the predictors. It was also not possible to consider the weighted average cost of capital (WACC) as a measure of financial performance because the ingredients necessary to determine each bank's cost of debt were largely unavailable. Consequently, the equity cost of capital was taken as the cost of capital for the study.

Determination of Fama-French Three Factor Model Cost of Capital

I computed the cost of capital based on the Fama-French three-factor model (FF3FM). This requires the determination of the excess returns due to market premium or systematic risk, size factor, and value factor.

Premium for excess market returns.

In line with the capital asset pricing model (CAPM), an excess return on market is determined as:

$$R_i - R_f = Beta_i\ (ER_m - R_f) \qquad (7)$$

In the Equation 7, R_i is the required rate of return expected by the investors, R_f represents the risk-free rate of return in the economy, $Beta_i$ stands for the measure of the systematic risk on the individual security, and ER_m represents the expected return on the market.

The ER_m was determined from the market return based on the average return on the NYSE index and NASDAQ index over a period of 5 years from January 2010 to December 2014. The two exchanges were used since the sampled banks were listed in either NYSE or NASDAQ. The excess market returns from the average returns and the risk free rate are presented in Table 6. The 30-day return on the US treasury stock was quoted as 2.21%, which was used as the risk free rate in this study (U.S. Department of

the Treasury, 2015). The calculated rate based on the individual firm betas represents the portfolio return that mimics the market risk premium factor, which is the same as determined under the single factor CAPM model.

Table 6

Determination of Excess Market Returns for Systematic Risk

Exchange	No. of sampled firms listed	Average Daily Returns on Index over 5 Years	R_f	Excess Market Returns (R_m-R_f)
NASDAQ	56	12.131%	2.21%	9.921%
NYSE	15	10.328%	2.21%	8.118%
Excess Market Returns			$ER_m - R_f$ =	9.019%

The premium for systematic risk was determined by multiplying the individual security's beta and the excess market returns of 9.019%.

Premium for size factor (SMB).

The premiums for the size and value factors were determined following Fama and French (1993). I ranked the average returns of the sampled firms by their market capitalization and categorized them into the top 20 percentile as the Big and bottom 80 percentile as the Small. I also ranked the average returns of the sampled banks by their book-to-market (BTM) ratio, categorizing the top 30 percentile as the Value, the bottom 30 percentile as the Growth portfolio, and the middle 40 percentile as the Neutral. When combined, I obtained the intersection of the stocks comprising SmallValue, SmallNeutral, and Small Growth which constituted the Small portfolio on one hand and BigValue, Big

Neutral, and BigGrowth constituting Big portfolio on the other hand. Yielding 0.24% as the size factor returns, the average of the total returns of the three Small portfolios minus the average of the total returns of the three Big portfolios are presented in Table 7. This is the portfolio return that mimics the size factor, for which investors expect some compensation. The expectation of Fama and French (1993) was that this premium should be added to the required rates of return on the securities in the portfolio.

Table 7

Calculation of Size Factor Returns (SMB)

Small Portfolio				Big Portfolio			
Portfolio	No	Total Returns	Average	Intersection	No.	Total Returns	Average
SmallValue	3	27.367%	9.122%	BigValue	18	114.524%	6.362%
SmallNeutral	7	34.631%	4.947%	BigNeutral	22	117.123%	5.324%
SmallGrowth	4	16.577%	4.144%	BigGrowth	17	98.679%	5.805%
	14	Average	6.071%		57	Average	5.830%

Note: Average returns of Small minus Big is 0.24%, calculated as 6.071% - 5.830%.

Premium for value factor (HML).

Also following Fama and French (1993), the premium for value factor was determined by creating two portfolios – High portfolio and Low portfolio – and subtracting the average return of the Low portfolio from that of the High portfolio. The calculation of value factor returns as 2.77% is presented in Table 8. This is the portfolio that mimics the value or growth factor for which investors also require some compensation. Fama and French (1993) also contended that this premium be added to the investors' required rates of return.

Table 8

Calculation of Value Factor Returns (HML)

High Portfolio				Low Portfolio			
Portfolio	No	Total Returns	Average	Portfolio	No	Total Returns	Average
BigValue	18	114.524%	6.362%	BigGrowth	17	98.679%	5.805%
SmallValue	3	27.367%	9.122%	SmallGrowth	4	16.577%	4.144%
	21	Average	7.742%		21	Average	4.975%

Note: Average returns of High minus Low is 2.77%, calculated as 7.742% - 4.975%.

The sum of premium for systematic risk, premium for size factor, premium for value/growth factor, and the risk free rate gives the total required rates of returns which represents the cost of capital used in the study. Appendix C shows the details of premiums and the resulting cost of capital for each firm in the selected sample.

Data Analysis: Descriptive Statistics

Descriptive Statistics of the Control Variables in Hypotheses 1

In Hypothesis 1, the control variables include asset volume, asset growth, capital expenditure/total asset ratio, leverage ratio, market capitalization, and prior-year financial performance measure (using EBITDA margin or MTB ratio if the dependent variable is EBITDA margin or MTB ratio respectively). In either case, the statistical descriptives of these control variables are presented in Table 9. Although, the control variables were measured in absolute values, ratios, or percentages, where control variables were measured in absolute values, the natural logarithmic values were calculated using Microsoft *Excel* function before they were used in the regression model and SPSS.

Table 9

Statistical Descriptives of the Control Variables in Hypotheses 1

Variable	Min	Max	M	S.D.	N
TotAssets ($'m)	1,042.51	78,330.43	9,488.77	12,200.48	71
Log_TotAssets	20.7649	25.0842	22.4800	.9547	71

Market Capitalization ($'m)	50.85	29,983.14	1,944.91	4280.89	71
Log_ME	17.7443	24.1239	20.4691	1.2405	71
AssetGrwth (%)	65.06	97.75	80.30	6.06	71
Capex/Asset (ratio)	-.0509	.0000	-.0027	.0071	71
$EBITDAMgn_{t-1}$ (%)	.33	83.11	29.17	19.73	71
MTB_{t-1}	.0603	3.5289	1.0201	.5344	71
Leverage (%)	.24	38.63	9.65	4.59	71

As stated in the earlier chapters, the financial data used for this study were publicly available, based on the mandatory regular returns filed by individual banks. The financial data of each bank were pulled for 5 years, from 2010 to 2014 and their simple averages were computed and used to measure the control variables. In several prior studies, size of firms was adequately controlled in the regression models. I adopted a bidimensional approach to controlling for the size in the model, using both book value approach and market value approach. I therefore collected financial data on the total assets for the five-year period. The 71 sampled banks recorded total assets of $673.7 billion for each year from 2010 to 2014, which translated to the average total asset volume of $9.49 billion ($5.218 billion, median) per bank per year. The asset values were then transformed to their natural logarithms to make them suitable for regression analysis. This produced an average log value of 22.48 (22.38, median). The yearend market values were extracted from the financial data collected. The annual total market value stood at $138.09 billion for the sampled banks, with mean market value of $1.944 billion per bank ($708 million, median) for each of the 5 years. Growth factor was controlled in the Hypothesis 1 and it was measured as the annual growth rate of each firm's total assets, which translated to average annual growth rate of 80.3% (79.7%,

median) in total assets of the selected banks. Risk was also controlled in the Hypothesis 1, as prior research showed that risk had significant influence on the accounting returns. In this study, I measured risk as the leverage ratio; that is, the ratio of debt to capital employed. Leverage ratio was also included in the financial returns filed by banks. For the sampled banks, leverage ratio had a mean value of 9.65% (9.25%, median). Prior year accounting returns were controlled in the Hypothesis 1. When the dependent variable was EBITDA margin, the prior year EBITDA margin (or $EBITDAMgn_{t-1}$) was controlled and when the dependent variable was taken as MTB ratio, the prior year MTB (i.e., MTB_{t-1}) was controlled in the regression models. In both cases, the financial data collected showed the average prior year EBITDA margin as 29.17% (27.74%, median) and the average prior year MTB ratio as 1.02 (0.918, median). Finally, management preference factor, which prior researchers have established to significantly influence accounting returns, was controlled in the Hypothesis 1. As stated in the earlier chapters, I operationalized management preference factor as the ratio of capital expenditure to total assets, since capital expenditure is a discretionary expenditure made by management to influence financial performance. Descriptive statistics showed an average ratio of 0.0027:1 for capital expenditure/total assets for each of the 5 years involved for each bank (0.0027, median). I expected that if these variables were appropriately measured as indicated and included in the regression model, their influence would be effectively isolated from the dependent variables in Hypothesis 1.

Descriptive Statistics of the Dependent Variables in Hypotheses 1

In Hypothesis 1, I claimed that corporate social responsibility factors could predict the financial performance of banks. In this hypothesis, I sought to measure the financial performance using both accounting (book) returns subject to the full managerial control and partially market based returns. For these measures, I used EBITDA margin and MTB ratio respectively. The descriptive statistics for the dependent variables are shown in Table 10.

Table 10

Statistical Descriptives of the Dependent Variables in Hypotheses 1

Variable	Min	Max	M	S.D.	N
EBITDA Margin (%)	0.28	80.26	29.02	19.21	71
MTB (ratio)	0.0693	3.5263	1.0539	.5319	71

EBITDA margin and MTB ratio were among the mandatory returns firms were required to file with the company registry. EBITDA margin is measured as EBITDA a percentage of revenue or turnover for the year. The sampled banks recorded an average annual EBITDA margin of 29.02% (26.19%, median). MTB, though reported by the sampled firms, is measured as the ratio of Market Price per share (MPS) to Book Value per share (BVPS). The sampled banks reported a mean MTB of 1.054 (0.946, median). The values of these dependent variables were fed directly into the regression model as they were not below the interval measurement level.

Descriptive Statistics of the Control Variables in Hypotheses 2

The focus of the Hypothesis 2 was on the testing of the market-based cost of capital of the sampled banks. I therefore claimed that corporate social responsibility factors of banks could predict the banks' cost of capital. In order to preserve the predictive value of the corporate social responsibilities on the cost of capital, I controlled for the size measured by the asset volume and market capitalization, the growth measured by the annual growth rate in asset volume, and the financial returns measured by EBITDA margin and MTB ratio. While the descriptive statistics of the size and growth (asset volume/market capitalization and asset growth rate) have earlier been reported under Table 9, the descriptive statistics of the EBITDA margin and MTB ratio were reported under Table 10.

Descriptive Statistics of the Independent Variables in Hypotheses 1 and 2

The individual corporate social responsibility (CSR) factors represent the independent variables for both hypotheses. Leaning on the research methodology of MSCI for CSR, I tested the MSCI's ratings for community, governance, diversity, employee relations, and product. I interacted with the MSCI Research Inc. who provided access to the ratings data used for this study. The 3 year ratings data collected covered the period from 2011 to 2013 to ensure a 1-year lag against the financial data for the period 2012 to 2014 to permit the testing of Granger causality of the models. The CSR ratings scores for each CSR factor are presented in Table 11.

Table 11

Distribution of CSR Ratings Scores of the Sampled Banks

CSR Factor	CSR Score
Community	361
Governance	386
Diversity	370
Employee Relation	341
Product	350
Aggregate (Total)	1808

In calculating the scores, consideration was given to the fact that environmental and human right factors were ignored in this study. This was because MSCI did not provide performance ratings for these factors. Exclusion was therefore justified in order not to bias the model. Table 11 showed that governance had the highest performance scores while employee relation factor had the least scores. The impact of each of these factors on the financial performance was the subject of the testing of the Hypothesis 1 and Hypothesis 2. To arrive at these overall scores for each factor, I summed the binary scores for strength and concern separately, and subtracted the sums of concern from those of the strength. The natural logarithmic values of the resultant sums were then taken to standardize the values and make them suitable for regression. As a check, these figures can be converted back using the *Excel* exponent function.

Descriptive Statistics of the Dependent Variables in Hypothesis 2

Having obtained the Fama-French three-factor cost of capital by pulling the premium for systematic risk as demonstrated under Table 6, the premium for size factor

in Table 7, and the premium for value factor in Table 8, together with the risk free factor, I obtained a distribution of the cost of capital which was then regressed against the individual bank's independent variables (i.e., individual CSR factors). For this purpose, the distribution of the estimated cost of capital is presented in Table 12.

Table 12

Descriptive Statistics of the Estimated Cost of Capital

Variable	Min	Max	M	S.D.	N
FF3FCOC	5.69	19.05	10.92	2.45	71

The 71 sampled banks reported mean cost of capital of 10.92% (11.03%, median) for each of the 5 years sampled, 2010 to 2014.

Data Analysis: Evaluation of Statistical Assumptions and Hypothesis Testing

In this section, I explore the SPSS outputs on the models presented in order to assess the level of their compliance with the regression assumptions made in chapter 3. This analysis is organized along the themes of study hypotheses. While testing each model, I evaluated the extent to which the linear regression assumptions were met or violated. The principal of such assumptions included multicollinearity, homoscedasticity, auto-correlation, and normality of distribution. I adopted triangulated approach to assess compliance with these assumptions by using plots and statistical numbers for the evaluation.

Hypothesis 1: Individual CSR Factors and Accounting Returns

The first hypothesis of the study, focused on the relation between the individual CSR factors and the accounting returns is restated as follows:

$H_0$1: The individual CSR factors of banks cannot predict the banks' accounting performance after controlling for the effects of the firm unique and the management preference factors.

H_a2: The individual CSR components of banks can predict the banks' accounting performance after controlling for the effects of the firm unique and the management preference factors.

The underlying research question that led to this hypothesis is: To what extent can the individual CSR factors of banks predict the bank accounting returns, controlling for the effects of bank unique and management preference factors? The focus was therefore on the measurement of the effect of the individual CSR factors on the accounting performance measures. In chapters 1 and 3, I specified a regression model in the Equation (8) to test Hypothesis 1:

$$FP_{it} = \beta_0 + \beta_1 CSR_{jit-1} + \beta_2 LogTotAsset_t + \beta_3 Lev_t + \beta_4 AssetGrowth + \beta_5 LogFP_{it-1} + \beta 6 CapexR + \varepsilon_{it} \quad (8)$$

where:

Subscripts = Index of bank *i*, time *t*, and CSR component *j*

FP_{it} = Financial performance for each US bank, measured as EBITDA margin and MTB ratio separately

β_0	=	Model intercept
β_1	=	Slope of rating score of each CSR component
$B_{2...5}$	=	Slope of each control variable
CSR_{jit-1}	=	Lagged rating score of CSR component *j*
FP_{it-1}	=	Preceding year's FP (ROA or Net-Earnings)
$TotAsset_t$	=	Total Assets measuring the size of each bank
Lev_t	=	Leverage ratio
AssetGrowth	=	Ratio of total asset in the current period to the total assets during the preceding period.
$CapexR_t$	=	Ratio of capital expenditure to total asset to measure management preference.
ε_{it}	=	Statistical disturbance term

I lagged the CSR factors by 1 year in order to examine the proposition that the individual CSR factors in a prior period Granger-influences the firm accounting returns in the subsequent period.

Evaluating the EBITDAMgn regression model.

In the first part of this model, EBITDA margin (a measure of accounting performance) was regressed against the individual CSR factors (Comscore, Govscore, Divscore, Empscore, and Prodscore) and the specified control variables (TotAsset, AssetGrowth, Leverage, $EBITDAMgn_{t-1}$, and CapexR). Essentially, I entered EBITDAMgn as the dependent variable. I then adopted hierarchical (blockwise entry)

method through the forced entry approach by entering the control variables in a block and the independent variables in another block without following any order. The control variables were entered all at once as a block, and, later, the independent variables were entered in the second block, also all at once. This strategy was to enable me isolate the effects of the control variables on the dependent variable. Because I made no decision on the order of entry of the variables in either block, all the variables within each block were entered once, thus adopting a forced entry approach. According to Field (2009, p. 212), a forced entry approach is appropriate for theory testing.

Running the EBITDAMgn regression model yielded the model summary detailed in the Table 13, showing the extent to which the model was successful in predicting EBITDAMgn from the individual CSR scores.

Table 13

EBITDAMgn Regression Model: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.983[a]	.966	.962	.0371967	.966	300.338	6	64	.000	
2	.983[b]	.967	.961	.0379379	.001	.505	5	59	.771	1.923

Note:

a. Predictors: (Constant), $EBITDAMgn_{t-1}$, Leverage, ASSETGRTH, LogTotAsset, LogME, CAPEXR

b. Predictors: (Constant), $EBITDAMgn_{t-1}$, Leverage, ASSETGRTH, LogTotAsset, LogME, CAPEXR, COMscore, GOVscore, DIVscore, EMPRscore, PRODscore.

The regression outputs detailed in Table 13 and Table 14 showed that the linear combination of the 11 control and predictor variables was significantly related to the

EBITDAMgn, R^2 = .97, adjusted R^2 = .96, $F(11, 59) = 157.71$, $p < .001$. The control variables predicted EBITDAMgn significantly over and above the CSR scores, R^2 = .97, $F(6, 64) = 300.34$, $p < .001$, but the CSR scores did not predict EBITDAMgn significantly after partialling out the effects of the control variables, R^2 change = .001, $F(5, 59) = .51$, $p = .77$. Based on these results, the CSR scores appear to offer little additional predictive power.

Further, the SPSS model summary showed that the relationship between the control variables ($EBITDAMgn_{t-1}$, Leverage, AssetGrowth, LogTotAsset, LogME, and CAPEXR) and the outcome variable (EBITDAMgn) was significant, R = .98, adjusted R^2 = .96, $F(6,64) = 300.34$, p < .001. The independent variables (COMscore, GOVscore, DIVscore, EMPRscore, and PRODscore) did not predict significantly over and above the control variable measures, R^2 change = .001, $F(5,59) = .51$, $p = .78$. The difference between the R^2 and the Adjusted R^2 was only .001, or .1%. This marginal difference suggests that if the model were to be applied to the population rather than the sample, variance would be reduced by merely .1%, which is negligible. It then suggests that the model, though largely explained by the control variables, could well generalize the ideal world with a strong goodness of fit. As advised by Field (2009, p. 222), a test of the cross-validity of the EBITDA margin model was performed by calculating the Adjusted R^2 using Stein's formula:

$$\text{Adjusted } R^2 = 1 - \left(\frac{n-1}{n-k-1}\right)\left(\frac{n-2}{n-k-2}\right)\left(\frac{n+1}{n}\right)(1-R^2) \qquad (9)$$

where ‘n’ represents the sample size and ‘k’ stands for the number of independent variables.

The performance of this test showed that the adjusted R^2 calculated was .95 which was close to the SPPS-determined adjusted R^2 of .97 and provided a further testament that the cross validity of this model was good.

Table 14 presents the ANOVA result of the test whether the EBITDAMgn model significantly predicted the outcome better than the mean. When only control variables were included in the model, the EBITDAMgn was strongly predicted by these control variables, $F(6,64) = 300.34$, significant, $p < .001$. The inclusion of the CSR scores (the independent variables) into the model did not yield a significant improvement in the explained variation, R^2 change = .001, $F(5,59) = .51$, $p = .78$. This was interpreted to mean that the observed marginal improvement resulting from the inclusion of the CSR scores into the EBITDAMgn regression model could have occurred by chance.

In summary, when the model included only the control variables, it strongly predicted the EBITDAMgn, $F(6,64) = 300.34$, significant, $p < .001$. Again, when the model included both the control variables and the criterion variables (the CSR factors), it still predicted the criterion variable strongly, $F(11,59) = 157.71$, significant, $p < .001$, though with a substantial reduction in the F value. This could be interpreted to mean that the improvement due to the regression model was not unlikely to have occurred by chance.

Table 14

Evaluating the ANOVA Values of EBITDA Margin Model

ANOVA

Model		Sum of Squares	Df	Mean Square	*F*	Sig.
1	Regression	2.493	6	.416	300.338	.000[b]
	Residual	.089	64	.001		
	Total	2.582	70			
2	Regression	2.497	11	.227	157.712	.000[c]
	Residual	.085	59	.001		
	Total	2.582	70			

Test of autocorrelation in the EBITDAMgn model.

The Durbin-Watson statistic of 1.923 shown in Table 13 is indicative of the presence or absence of autocorrelation in the data. As a convenient rule, Field (2009, p.236) suggested that Durbin-Watson statistic either lying between 1 and 3 or being close to 2 showed absence of autocorrelation. In this model, Durbin-Watson statistic of 1.9 lies between 1 and 3, and is also close to 2, implying lack of autocorrelation in the data. Autocorrelation is an independence error that occurs when two observations have residual terms that are correlated. Regression analysis assumes that residual terms must not be correlated.

Evaluating the parameters in the EBITDAMgn model.

The parameters in the EBITDA margin model were evaluated, including the beta and correlation coefficients. The summary of the coefficients for each of the variables is presented in Table 15.

Table 15

Coefficients in the EBITDA Margin Model

Model	Unstandardized Coefficients		Std. Coef-ficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tole-rance	VIF
(Constant)	-.100	.208		-.480	.633	-.517	.317					
LogTotAsset	.012	.005	.059	2.362	.021	.002	.022	-.193	.294	.056	.884	1.131
ASSETGRTH	-.004	.089	-.001	-.051	.960	-.182	.173	.058	-.007	-.001	.711	1.407
CAPEXR	.326	.751	.012	.434	.666	-1.176	1.828	.089	.056	.010	.732	1.366
Leverage	-.046	.128	-.011	-.363	.718	-.302	.209	.019	-.047	-.009	.598	1.671
LogME	-.004	.004	-.025	-.916	.364	-.012	.005	.057	-.118	-.022	.767	1.303
$EBITDAMgn_{t-1}$	.973	.024	.999	40.186	.000	.924	1.021	.981	.982	.949	.901	1.110
COMscore	-.036	.031	-.030	-1.133	.262	-.098	.027	-.034	-.146	-.027	.786	1.273
GOVscore	.002	.040	.002	.055	.957	-.077	.082	.018	.007	.001	.528	1.893
DIVscore	.003	.025	.004	.137	.891	-.047	.054	.022	.018	.003	.840	1.190
EMPRscore	.025	.044	.015	.578	.565	-.062	.113	.000	.075	.014	.852	1.174
PRODscore	-.042	.046	-.025	-.905	.369	-.134	.050	.094	-.117	-.021	.745	1.342

The EBITA margin model below was depicted by the equation with the substituted coefficients.

$$EBITDAMGN_t = -0.1 - 0.03LogCOMscore + 0.002LogGOVscore + 0.004LogDIVscore + 0.02LogEMPRscore - 0.02LogPRODscore + 0.06LogTotAsset_t - 0.01Lev - 0.001AssetGrowth + EBITDAMgn_{t-1} + 0.12CapexR - 0.03LogME$$

From the model, the standardized beta values/coefficients of COMscore and PRODscore were negative implying that efforts made to improve community and product scores might hurt margin. The standardized beta values of GOVscore, DIVscore and EMPRscore were positive implying that greater efforts aimed at improving these social scores might lead to some improvement in the margin. The standardized betas of all the CSR scores did not appear to be tangible, because their *t* values were not significant, $p>.05$. Among the control variables, only AssetGrowth, Leverage, and LogME showed negative relationship with EBITDA margin while the other ones (TotAsset, $EBITDAMgn_{t-1}$ and CapexR) showed positive relationship. The coefficient of $EBITDAMgn_{t-1}$ was significant and not likely to be due to chance, with $t = 2.36$, $p = .02$. Also the standardized beta value of LogTotAsset was equally significant, $t = 40.19$, $p < .001$. The standardized betas of the other control variables (AssetGrowth, CapexR, Leverage and ME) were not significant, $p > .05$. This implied that their beta values might be due to chances and might not be significantly different from 0. Finally, the alpha value of the model (β_0) is 0, with $t = -.48$, $p = .63$ (not significant).

Test of assumptions of collinearity in the EBITDAMgn model.

The collinearity statistics, which was required to assess the presence or absence of multicollinearity in the data, was also shown in Table 15. As a rule of thumb, if the largest variance inflation factor (VIF) is greater than 10, there is evidence of collinearity in the data. Also as a rule of thumb, a tolerance below 0.1 shows presence of a serious problem with collinearity and tolerance below 0.2 equally indicates a potential problem. The largest VIF of 1.9 and the lowest tolerance (1/VIF) of 0.53 are within the acceptable range, indicating that multicollinearity was not present in the data.

Evaluating the correlation coefficients in the EBITDAMgn model.

The Pearson partial correlation coefficient for EBITDA margin model was presented in Table 16, showing that no significant correlation was recorded between EBITDA margin and all the variables in the model. The only exception was the previous EBITDA margin which was highly correlated with the EBITDA margin, with $R = .98$, $p<.001$. The strong positive correlation between the current year EBITDA margin and the previous year EBITDA margin is understandable since they are an extension of each other. Notwithstanding, LogTotAsset and COMscore showed negative correlation coefficients, implying a tendency to have negative relationships with the EBITDA margin, while other variables showed positive correlation coefficients suggesting positive relationships with the EBITDA margin. A review of the correlation matrix presented in Table 16 did not show correlation coefficient (r) that is greater than .9, apart from the EBITDA margins of the current and the previous years. This also supported the fact that multicollinearity was not present in the data.

Table 16

Correlation Coefficients in the EBITDA Margin Model

	EBITDAMgn	LogTot Asset	ASSET GRTH	CAP EXR	Lev	LogME	EBITDA Mgn_{t-1}	COM score	GOV score	DIV score	EMPR score	PROD score
EBITDAMgin	1.000											
LogTotAsset	-.193	1.000										
Sig. (1-tailed)	.054											
ASSETGRTH	.058	-.031	1.000									
Sig. (1-tailed)	.315	.398										
CAPEXR	.089	-.135	-.306	1.000								
Sig. (1-tailed)	.231	.131	.005									
Leverage	.019	-.176	-.182	.357	1.000							
Sig. (1-tailed)	.439	.071	.064	.001								
LogME	.057	.037	.299	-.033	-.295	1.000						
Sig. (1-tailed)	.319	.380	.006	.394	.006							
$EBITDAMgn_{t-1}$	.981	-.250	.072	.087	.030	.075	1.000					
Sig. (1-tailed)	.000	.018	.275	.234	.401	.267						
COMscore	-.034	-.045	.102	-.026	.118	-.090	-.008	1.000				
Sig. (1-tailed)	.388	.355	.199	.415	.164	.227	.475					
GOVscore	.018	.078	.006	-.148	-.380	.076	.009	-.403	1.000			
Sig. (1-tailed)	.441	.260	.481	.110	.001	.264	.469	.000				
DIVscore	.022	-.079	.072	.015	.142	-.104	.020	.055	-.354	1.000		
Sig. (1-tailed)	.429	.256	.274	.450	.119	.194	.434	.323	.001			

EMPRscore	.000	-.078	-.172	-.061	.178	.017	-.005	.077	.029	-.020	1.000	
Sig. (1-tailed)	.498	.258	.076	.305	.069	.444	.484	.262	.404	.435		
PRODscore	.094	.081	-.159	-.024	.033	.034	.110	-.195	.387	-.178	-.015	1.000
Sig. (1-tailed)	.217	.251	.093	.420	.392	.390	.181	.052	.000	.069	.451	

In terms of the effect size, Field (2009, p. 57) suggested that correlation coefficients also stand for the effect size of the regression model, with +-.1, +-.3, and +-.5 representing small effect, medium effect, and large effect respectively. The effect size of the variables that reported effect in the testing of the EBITDA margin model is presented in Table 17. The other variables did not report any significant effect.

Table 17

Determination of Effect Size in the EBITDAMgn Model

Variable	r	Effect Size
$EBITDAMgn_{t-1}$	.98	Large
LogTotAsset	-.19	Small
AssetGrowth	.06	Small
CapexR	.09	Small
LogME	.06	Small
PRODscore	.09	Small

Evaluation of homoscedasticity assumption in the EBITDAMgn model.

In regression analysis it is assumed that at each level of the predictor variables, the variances of the residuals should be constant (Field, 2009, p. 220). The constancy of the variances in this manner is referred to as homoscedasticity while the lack of it is referred to as heteroscedasticity. Following Field's (2009) suggestion, I used a scatter plot of ZRSID against the ZPRED which is shown in Figure 3.

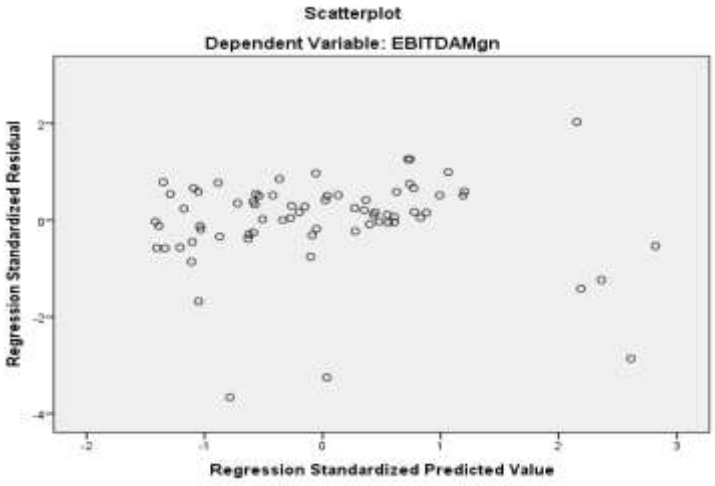

Figure 3: Plot of *ZRESID against *ZPRED for EBITDAMgn OLS Regression Model

According to Field (2009, p. 247), the assumption of homoscedasticity is met only when the dots in the plot are random and the graph does not funnel out. The dots in the Figure 3 are scattered without any clear pattern and the graph did not funnel out, so the assumption of homoscedasticity was met in this data.

Test of linearity assumption in the EBITDAMgn model.

Linearity is a fundamental assumption of regression analysis. Field (2009, p. 247) suggested that linearity assumption be tested by a scatter plot of *ZRESID against *ZPRED. According to him, if there is no curve pattern in the scatter plot, then the relationship is linear and the assumption of linearity is met. The dots in the Figure 3 did not reveal any curve pattern or curvilinear relationship between the *ZRESID and *ZPRED. Therefore, the linearity assumption was met in the EBITDAMgn model.

Test of homogeneity of variance assumption in the EBITDAMgn model.

Regression analysis assumes that variances are homogeneous. Accordding to Field (2009, p. 340), variances are homogenous if Levene's statistic is not significant. In

Table 18, the Levene's statistic of the mean of the distribution is not significant, Levene's statistic = 0.77, p = .47. This implied that the assumption of homogeneity of variances was not violated in the data.

Table 18

Levene Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
EBITDAMgn	Based on Mean	.766	2	66	.469
	Based on Median	.619	2	66	.541
	Based on Median and with adjusted df	.619	2	58.897	.542
	Based on trimmed mean	.653	2	66	.524

Evaluation of normality assumption in the EBITDAMgn model.

Another assumption of the regression analysis is the normality of the distribution. In this study, I tested normality through the use of histograms. The Figure 4 below is the histogram with a fitted normal curve for the EBITDA margin model. The normal bell-shaped curve around the histogram is indicative of a data that reflects normal distribution with mean of 0 and standard deviation of 1.

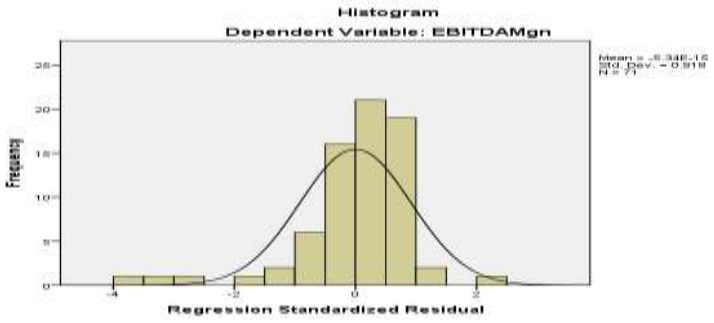

Figure 4. Histogram of normally distributed residuals for the EBITDAMgn OLS Model.

The normal P-P plot of regression standardized residual for EBITDA margin in Figure 5 indicates some variations of the residuals from the regression line. Field (2009, p. 248) suggested that quantitative test be performed to confirm if such a plot is significantly outside a normal distribution.

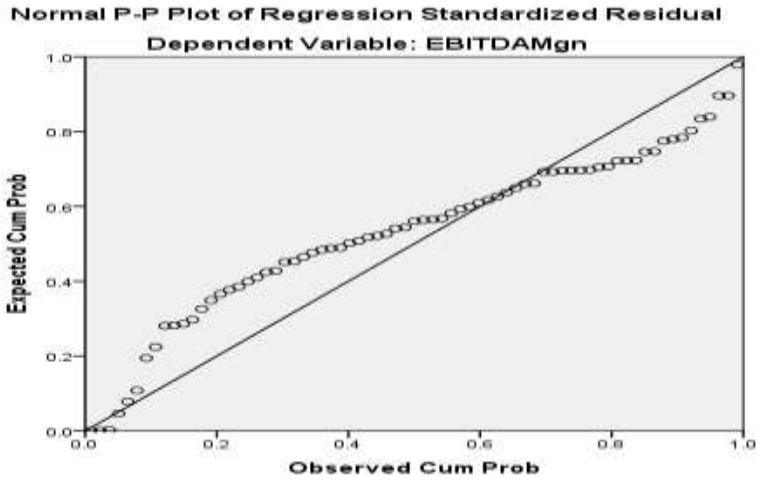

Figure 5. Normal P-P Plot of the expected against the observed cumulated probability for the EBITDAMgn OLS Model.

I explored two quantitative tests of normality assumption. First, I examined the skewness and kurtosis and computed their standardized scores. Field (2009, p. 139) suggested that if the distribution is normal, then the skewness and kurtosis of the distributions should be close to 0 and the standardized skewness (ZSkewness) and the standardized kurtosis (ZKurtosis) should be within the +/-1.96 for small sample size, +/-2.58 for medium sample size, or +/-3.29 for large sample size. The sample size for this study was 71, which qualified for medium sample size. As suggested by Field, the standard scores are determined by division of the skewness or kurtosis by their respective standard errors. Presented in Table 19 are the values of the skewness and kurtosis along

with their respective standard errors and the computed standard scores. The individual skewness and kurtosis are not too far from 0, and the ZSkewness and ZKurtosis were within the standard score of +-2.58 applicable to the medium size sample of this study. This therefore suggests that the distributions of the data relating to the dependent and the independent variables were normal distributions.

Table 19

Test of Normality: Standard Scores of Skewness and Kurtosis

	Skewness	Kurtosis	S.E. Skewness	S.E. Kurtosis	ZSkewness	ZKurtosis
EBITDAMgn	0.552	-0.175	0.285	0.563	1.937	-0.311
MTB	0.675	0.255	0.285	0.563	2.368	0.453
COC	0.615	0.282	0.285	0.563	2.158	0.501
COMscore	0.126	-0.346	0.285	0.563	0.442	-0.615
GOVscore	-0.733	0.943	0.285	0.563	-2.572	1.675
DIVscore	0.450	-0.418	0.285	0.563	1.579	-0.742
EMPRscore	-0.491	-0.282	0.285	0.563	-1.723	-0.501
PRODscore	-0.287	0.564	0.285	0.563	-1.007	1.002

Secondly, in line with Field's (2009, p. 145) recommendation a further test of Kolmogorov-Smirnov combined with Shapiro-Wilk test was conducted to evaluate the extent of non-compliance with the assumption of normality of distribution. Table 18 shows the outcome of these two tests. Field suggested that if the statistics of these tests are significant ($p < .05$), then the distributions are not normal, but if they are not significant ($p > 0.05$), then the distributions are normal. The statistics of both Kolmogorov-Smirnov and Shapiro-Wilk tests presented in Table 20 are not significant ($p > .05$) for EBITDA margin against the CSR scores. This implies that the distributions are close to a normal distribution.

Table 20

Kolmogorov-Smirnov and Shapiro-Wilk Tests of Normality

Tests of Normality							
		Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
EBITDAMgn	COMscore	0.071	71	.200	0.976	71	0.678
	GOVscore	0.236	71	.200	0.935	71	0.632
	DIVscore	0.109	71	.200	0.97	71	0.891
	EMPRscore	0.081	71	.200	0.96	71	0.092
	PRODscore	0.073	71	.200	0.961	71	0.053

Evaluating the MTB model.

Hypothesis 1 sought to test the impact of the individual CSR scores on the accounting returns when the firm unique factors and management preference factors are controlled. It required accounting returns to be operationalized as EBITDA margin and MTB ratio respectively. Having explored the regression model when accounting return was operationalized as EBITDA margin, I then tested the hypothesis when accounting return was operationalized as MTB ratio. In this regard, I used the same input into the SPSS regression, but swapped the EBITDA margin with the MTB as the dependent variable and also swapped the $EBITDAMgn_{t-1}$ with the MTB_{t-1} in the control variables. Running the MTB regression model yielded the model summary detailed in Table 21, showing the extent to which the model was successful in predicting the MTB from the individual CSR scores when the effects of the specified confounding variables were controlled.

Table 21

MTB Regression Model: Model Summary

Model Summary

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate	Change Statistics				Durbin-Watson
					R Square Change	*F* Change	df1	df2	Sig. *F* Change	
1	.999[a]	.997	.997	.0300144	.997	3653.056	6	64	.000	
2	.999[b]	.997	.997	.0298064	.000	1.179	5	59	.330	2.326

Note:

a. Predictors: (Constant), MTB_{t-1}, LogTotAsset, Leverage, LogME, ASSETGRTH, CAPEXR

b. Predictors: (Constant), MTB_{t-1}, LogTotAsset, Leverage, LogME, ASSETGRTH, CAPEXR, DIVscore, PRODscore, EMPRscore, COMscore, GOVscore

It was shown in Table 21 and Table 22 that the linear combination of the 11 control and predictor variables was significantly related to the MTB, $R^2 = .997$, adjusted $R^2 = .997$, $F(11, 59) = 2021.02$, $p < .001$. The control variables predicted MTB significantly over and above the CSR scores, $R^2 = .997$, $F(6.64) = 3653.05$, $p < .001$, but the CSR scores did not predict MTB significantly after partialling out the effects of the control variables, R^2 change = .000, $F(5, 59) = 1.18$, $p = .33$. Based on these results, the CSR scores appear to offer little additional predictive power beyond that contributed by the control variables.

Further, the SPSS model summary showed that the relationship between the control variables (MTB_{t-1}, Leverage, AssetGrowth, LogTotAsset, LogME, and CAPEXR) and the outcome variable (MTB) was significant, $R = .999$, adjusted $R^2 = .997$, $F(6,64) = 3653.06$, $p < .001$. Like the EBITDA margin model, the five predictors (COMscore, GOVscore, DIVscore, EMPRscore, and PRODscore) also did not predict significantly over and above the control variable measures, R^2 change = .000, $F(5,59) = 1.18$, $p = .33$. The difference between the R^2 and the Adjusted R^2 was nil, suggesting that applying this

model to the population rather than the sample would not lead to any meaningful change in the variance. It follows that the model, though largely explained by the control variables, could well generalize the ideal world with a strong goodness of fit.

I also performed the test of cross-validity of the MTB model by calculating the Adjusted R^2 using Stein's formula:

$$\text{Adjusted } R^2 = 1 - \left(\frac{n-1}{n-k-1}\right)\left(\frac{n-2}{n-k-2}\right)\left(\frac{n+1}{n}\right)(1-R^2) \qquad (9)$$

where 'n' represents the sample size and 'k' stands for the number of independent variables.

This test yielded adjusted R^2 of .995 which was close to the SPPS-determined R^2 of .997, a further indication that the cross validity of this model was good.

Similarly, the ANOVA result of the test whether the MTB model significantly predicted the outcome better than the mean was presented in Table 22. When only control variables were included in the model, the MTB was strongly predicted by these control variables, $F(6,64) = 3653.06$, significant, $p < .001$. The inclusion of the CSR scores (the independent variables) into the MTB model did not yield a meaningful improvement in the explained variation, R^2 change = .000, $F(5,59) = 1.18$, $p = .33$. This was interpreted to mean that the observed marginal improvement in the F ratio, resulting from the inclusion of the CSR scores into the MTB regression model could have occurred by chance.

In summary, when the model included only the control variables, it strongly predicted the MTB $F(6,64) = 3653.06$, $p < .001$ (significant). Again, when the model

included both the control variables and the criterion variables (the CSR factors), $F(11,59) = 1.8$, $p < .001$ (significant). This was interpreted to mean that the inclusion of the CSR factors into the MTB model did not yield meaning improvement in the regression model.

Table 22

Evaluating the ANOVA Values of MTB Model

ANOVA						
Model		Sum of Squares	df	Mean Square	*F*	Sig.
1	Regression	19.745	6	3.291	3653.056	.000
	Residual	.058	64	.001		
	Total	19.803	70			
2	Regression	19.751	11	1.796	2021.017	.000
	Residual	.052	59	.001		
	Total	19.803	70			

Test of Autocorrelation in the MTB model.

The Durbin-Watson statistic of 2.3 shown in Table 19 is indicative of the presence or absence of autocorrelation in the data. The statistic represented a measure of the extent of autocorrelation in the data used in the testing of the model. As stated earlier, Durbin-Watson statistic lying between 1 and 3 or being close to 2 showed absence of autocorrelation. The Durbin-Watson statistic in the MTB model of 2.3 lied between 1 and 3 and was also close to 2, suggesting lack of autocorrelation in the data.

Evaluating the parameters in the MTB model.

The parameters in the MTB model, including the beta and correlation coefficients, were evaluated. The summary of the coefficients for each of the variables in the MTB model is presented in Table 23.

Table 23

Coefficients in the MTB Model

Model	Unstandardized Coefficients		Std. Coef-ficients	*t*	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tole-rance	VIF
(Constant)	-.107	.168		-.636	.527	-.443	.229					
LogTotAsset	.002	.004	.004	.577	.566	-.005	.010	-.006	.075	.004	.941	1.063
ASSETGRTH	-.050	.076	-.006	-.654	.515	-.201	.102	.501	-.085	-.004	.601	1.665
CAPEXR	1.78	.631	.024	2.814	.007	.513	3.039	-.373	.344	.019	.639	1.564
Leverage	-.170	.102	-.015	-1.670	.100	-.373	.034	-.035	-.212	-.011	.585	1.709
LogME	-.002	.003	-.004	-.512	.611	-.008	.005	.267	-.066	-.003	.726	1.378
MTB_{t-1}	1.008	.009	1.013	109.884	.000	.990	1.026	.998	.998	.736	.528	1.894
COMscore	.014	.026	.004	.551	.584	-.037	.065	.072	.292	.004	.731	1.369
GOVscore	.066	.032	.020	2.091	.041	.003	.129	-.122	.263	.014	.515	1.942
DIVscore	.013	.020	.005	.652	.517	-.027	.053	-.039	.085	.004	.829	1.207
EMPRscore	.019	.035	.004	.546	.587	-.050	.088	-.037	.071	.004	.850	1.177
PRODscore	-.004	.037	-.001	-.098	.922	-.077	.070	.060	-.013	-.001	.726	1.378

The regression coefficients in the Table 21 were substituted in the MTB model producing the following equation:

$$MTB = - 0.107 + 0.004LogCOMscore + 0.02LogGOVscore + 0.005LogDIVscore + 0.004LogEMPRscore - 0.001LogPRODscore + 0.004LogTotAsset_t - 0.004Lev - 0.01AssetGrowth + 1.01MTB_{t-1} + 0.02CapexR - 0.004LogME$$

The MTB model showed that among the CSR factors only the PRODscore had negative standardized beta, implying that efforts made to improve the product scores would hurt MTB. The standardized beta values of COMscore, GOVscore, DIVscore and EMPRscore were all positive with the implication that greater efforts to improve these social factors might pay off with improvement in the MTB. The model showed a significant beta value of the GOVscore social factor, $t = 2.09$, $p = 0.04$ (significant). The t score of the other social factors (COMscore, GOVscore, DIVscore, EMPRscore and PRODscore) were not significant, $p > .05$ respectively.

Like EBITDA margin model, the MTB model also showed that AssetGrowth, Leverage, and ME had negative beta values, implying negative relationship with MTB, while TotAsset, MTB_{t-1} and CapexR had positive relationships. The coefficient of previous MTB was also significant and this was unlikely to be due to chance, with $t = 109.88$, $p = <.001$. Also the standardized beta value of CapexR is equally significantly different from 0, with $t = 2.81$, $p = .01$. The t scores of the coefficients of the other control variables (TotAsset, AssetGrowth, Leverage, and ME) were not significant, with $p > .05$, suggesting that their beta coefficients might be due to chances and not significantly different from 0. Finally, the alpha value of the model (β_0) is 0, with $t = -0.64$, $p = .53$ (not significant).

A review of the collinearity statistics in Table 21 showed that the largest VIF was 1.9 and the lowest tolerance was 0.52, which were within the required thresholds. This implied that the data used for the testing of the MTB model was free from multicollinearity.

Evaluating the correlation coefficients in the MTB model.

The Pearson partial correlation coefficient was obtained for the MTB model. The correlation coefficients for each of the variables including their *p* values were presented in Table 16. As observed in the EBITDA margin model, the strongest relationship was reported between MTB and MTB_{t-1}, apparently because the two variables were an extension of each other, $r = .998$, $p < .001$ (significant). Of the control variables, AssetGrowth showed significantly high correlation with the MTB, $r = .5$, $p < .001$ (significant), CapexR showed moderate negative correlation with the MTB, $r = -.37$, $p = .001$ (significant), while LogME showed moderate positive correlation with the MTB, $r = .27$, $p = .01$ (significant). Amongst the criterion variables (the CSR factors), only COMscore showed a low positive correlation with the MTB, $r = .29$, $p = .01$ (significant). The other CSR factors (GOVscore, DIVscore, EMPRscore, and PRODscore) did not show significant correlation with the MTB. Notwithstanding, GOVscore, DIVscore, and EMPRscore showed negative correlation coefficients, implying a tendency to be negatively related with the MTB.

The correlation coefficients presented in Table 24 did not show any correlation coefficient (*r*) that is greater than .9, apart from the correlation coefficient of the MTB of the current and the previous years. This also supported the fact that multicollinearity was not present in the data.

Table 24

Correlation Coefficients of MTB Model

	EBITDA Mgn	LogTot Asset	ASSET GRTH	CAP EXR	Lev	LogME	MTB_{t-1}	COM score	GOV score	DIV score	EMPR score	PROD score
MTB	1.000											
LogTotAsset	-0.006	1.000										
Sig. (1-tailed)	0.481											
ASSETGRTH	0.501	-0.031	1.000									
Sig. (1-tailed)	0	0.398										
CAPEXR	-0.373	-0.135	-0.306	1.000								
Sig. (1-tailed)	0.001	0.131	0.005									
Leverage	-0.035	-0.176	-0.182	0.357	1.000							
Sig. (1-tailed)	0.387	0.071	0.064	0.001								
LogME	0.267	0.037	0.299	-0.033	-0.295	1.000						
Sig. (1-tailed)	0.012	0.38	0.006	0.394	0.006							
MTB_{t-1}	0.998	-0.01	0.505	-0.385	-0.024	0.265	1.000					
Sig. (1-tailed)	0	0.468	0	0	0.421	0.013						
COMscore	0.292	-0.045	0.102	-0.026	0.118	-0.09	0.293	1.000				
Sig. (1-tailed)	0.007	0.355	0.199	0.415	0.164	0.227	0.007					
GOVscore	-0.122	0.078	0.006	-0.148	-0.38	0.076	-0.138	-0.403	1.000			
Sig. (1-tailed)	0.155	0.26	0.481	0.11	0.001	0.264	0.125					
DIVscore	-0.039	-0.079	0.072	0.015	0.142	-0.104	-0.035	0.055	-0.354	1.000		
Sig. (1-tailed)	0.374	0.256	0.274	0.45	0.119	0.194	0.387	0.323	0.001			

EMPRscore	-0.037	-0.078	-0.172	-0.061	0.178	0.017	-0.037	0.077	0.029	-0.02	1,000	
Sig. (1-tailed)	0.381	0.258	0.076	0.305	0.069	0.444	0.378	0.262	0.404	0.435		
PRODscore	0.06	0.081	-0.159	-0.024	0.033	0.034	0.055	-0.195	0.387	-0.178	-0.015	1,000
Sig. (1-tailed)	0.308	0.251	0.093	0.42	0.392	0.39	0.325	0.052	0	0.069	0.451	

The effect size of the variables that reported effect in the testing of the MTB model was presented in Table 25. No significant effect was found in the remaining variables.

Table 25

Determination of Effect Size in the MTB Model

Variable	*r*	Effect Size
MTBprev	.998	Large
AssetGrowth	.50	Large
CapexR	-.37	Medium
LogME	.27	Medium
COMscore	.29	Medium
PRODscore	.10	Small

Evaluation of homogeneity of variance assumption in the MTB model.

In Table 26, I presented the Levene statistics for the MTB model based on the three measures of central tendency. The Levene's statistic of the mean of the distribution is not significant, Levene's statistic = 1.83, $p = .17$. So, the assumption of homogeneity of variance was not violated in the model.

Table 26

Levene Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
MTB	Based on Mean	1.826	2	66	.169

Based on Median	1.818	2	66	.170
Based on Median and with adjusted df	1.818	2	42.322	.175
Based on trimmed mean	1.872	2	66	.162

Evaluation of homoscedasticity assumption in the MTB model.

Following Field's (2009) suggestion, I constructed a scatter plot of ZRSID against the ZPRED which is shown in Figure 6. The dots in the figure appeared random and the graph did not funnel out, confirming that the assumption of homoscedasticity was met in this data.

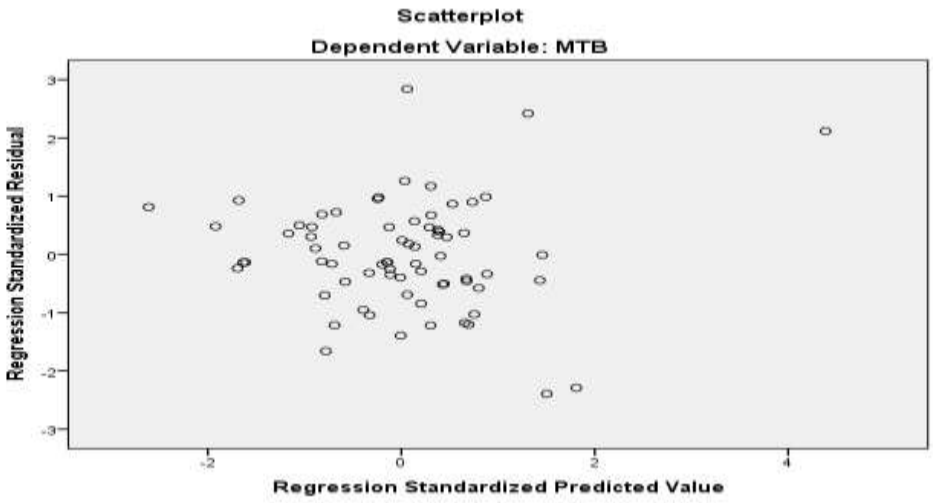

Figure 6. Plot of *ZRESID against *ZPRED for MTB OLS Regression Model

Test of linearity assumption in the MTB model.

A review of the dots in the Figure 3 did not reveal any curve pattern or curvilinear relationship between the *ZRESID and *ZPRED. This suggests that the linearity assumption made on the MTB regression model was not violated.

Evaluation of normality assumption in the MTB model.

I used both graphical and quantitative approaches to test the normality of the data used for the MTB model. The Figure 7 below is the histogram with a fitted normal curve for the MTB distribution. The fitted curve reflects normal bell-shaped curve, implying that the distribution followed normal distribution with mean of 0 and standard deviation of 1.

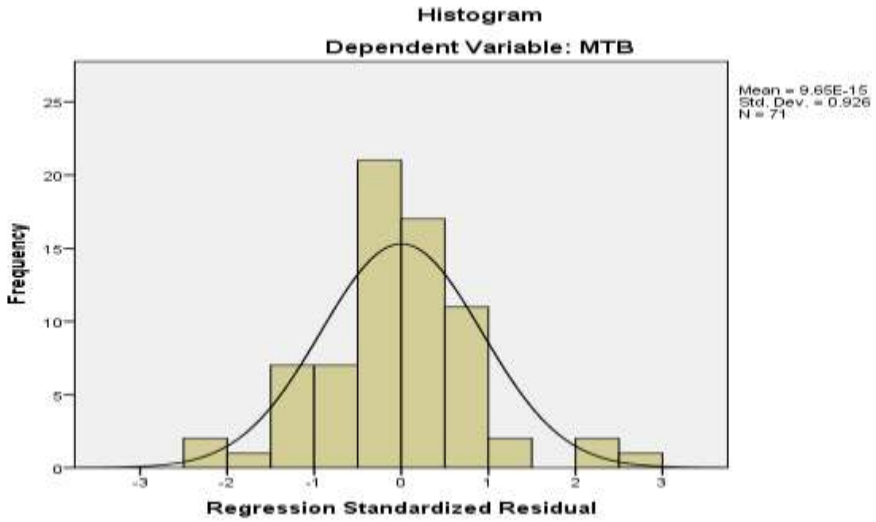

Figure 7. Histogram of the normally distributed residuals for the MTB distribution OLS model

The normal P-P plot of the regression standardized residuals equally showed evidence of normal distribution for the MTB. The normal P-P plot for the MTB dependent variable is shown in Figure 8.

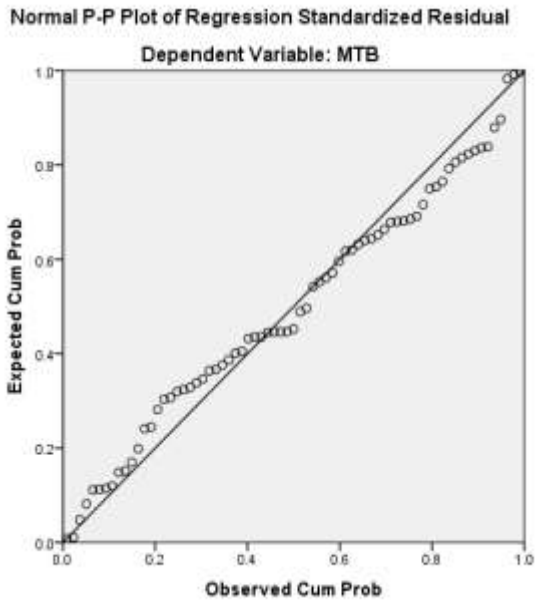

Figure 8. Normal P-P Plot of the expected against the observed cumulated probability for the MTB OLS Model

The individual skewness and kurtosis of MTB and the predictors (CSR scores) were not too far from 0, and their ZSkewness and ZKurtosis were also within the standard score of +/-2.58 applicable to the medium size sample of this study. This was a testament that the distributions of the data relating to the dependent and the independent variables of the MTB model followed normal distributions. The skewness and kurtosis as well as their standard scores for each of the variables relevant to the MTB model were presented in Table 27.

Table 27

Test of Normality: Standard Scores of Skewness and Kurtosis

	Skewness	Kurtosis	S.E. Skewness	S.E. Kurtosis	ZSkewness	ZKurtosis
MTB	0.675	0.255	0.285	0.563	2.368	0.453

COC	0.615	0.282	0.285	0.563	2.158	0.501
COMscore	0.126	-0.346	0.285	0.563	0.442	-0.615
GOVscore	-0.733	0.943	0.285	0.563	-2.572	1.675
DIVscore	0.450	-0.418	0.285	0.563	1.579	-0.742
EMPRscore	-0.491	-0.282	0.285	0.563	-1.723	-0.501
PRODscore	-0.287	0.564	0.285	0.563	-1.007	1.002

A further test of Kolmogorov-Smirnov and that of Shapiro-Wilk were performed to quantitatively evaluate the extent of compliance with the assumption of normality of distribution. The outcome of the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality for MTB model was detailed in Table 28. The statistics of both Kolmogorov-Smirnov and Shapiro-Wilk tests were not significant ($p > .05$) for MTB against each of the criterion variables. This implied that the distributions of the MTB and the CSR scores were normal.

Table 28

Kolmogorov-Smirnov and Shapiro-Wilk Tests of Normality

		Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
MTB	COMscore	0.092	71	.200	0.975	71	0.642
	GOVscore	0.111	71	.200	0.951	71	0.284
	DIVscore	0.136	71	.200	0.914	71	0.208
	EMPRscore	0.166	71	.200	0.908	71	0.08
	PRODscore	0.113	71	0.08	0.887	71	0.06

Hypothesis 2: Individual CSR Factors and Cost of Capital

The second hypothesis of the study, focused on the relation between the individual CSR factors and the cost of capital is restated as follows:

$H_0$2: Individual CSR factors of banks cannot predict the banks' cost of capital.

H_a2: Individual CSR factors of banks can predict the banks' cost of capital. This hypothesis addressed the second research question through the use of multifactor regression model, testing the impact of each CSR component separately on the cost of capital. The cost of capital used was based on Fama-French three-factor (FF3F) model that factored three different risk factors of market risk premium (MRP), size (SMB) and value (HML) into the rates of return required by investors. The objective of the hypothesis was to assess the effect of the individual CSR factors on the cost of capital of a bank as a measure of financial performance. In chapters 1 and 3, I specified the regression model represented by the Equation (10) below to test Hypothesis 2.

$$\begin{aligned} FF3FCOC_{it} = {} & \beta_0 + \beta_{1j}CSR_{ijt-1} + \beta_2 LogTotAsset_t + \beta_3 LEVERAGE + \\ & \beta_4 ASSETGRTH + \beta_5 EBITDAMgn + \beta_6 MTB + \\ & \beta_7 CAPEXR + \beta_8 LogME + \varepsilon_{it} \end{aligned} \quad (10)$$

where,

Subscripts	=	Index of bank *i*, time *t*, and CSR component *j*
$FF3FCOC_{it}$	=	Cost of capital calculated using Fama-French three-factor approach
β_0	=	Model intercept
β_{1j}	=	Slope of CSR component *j*
CSR_{ijt-1}	=	Lagged rating score of CSR component *j*
MTB	=	Current period's MTB ratio
EBITDAMGN	=	EBITDA margin

LogTotAsset	=	Natural logarithm of total assets.
Leverage	=	Ratio of debt to total asset, measuring leverage ratio.
AssetGrth	=	Ratio of total asset in the current period to the total assets during the preceding period.
CapexR	=	Ratio of capital expenditure to total asset to measure management preference.
Log_ME	=	Natural logarithm of market capitalization
ε_{it}	=	Stochastic error term, assumed to be independent and insignificant, with a mean of 0 and standard deviation of 1.

The underlying research question that led to this hypothesis is: To what extent can the individual CSR factors of a bank predict the bank's cost of capital, controlling for the effects of bank unique and management preference factors? I lagged the CSR factors by 1 year in order to support my claim that the individual CSR factors in a prior period Granger-influences the firm's cost of capital in the subsequent period.

Evaluating the FF3FCOC (Fama-French three-factor cost of capital) model.

In Hypothesis 2, I sought to test whether individual CSR scores could predict the cost of capital when the firm unique factors and management preference factors were controlled. As I did in the testing of the Hypothesis 1, I equally adopted hierarchical block entry and forced entry approaches to input the variables into the SPSS linear regression in order to isolate the confounding effects of the control variables on the FF3FCOC. A multiple regression analysis was conducted in two unordered steps: the first step involved the control variables of MTB, LogTotAsset, Leverage, EBITDAMgn,

LogME, ASSETGRTH, and CAPEXR, while the second step involved the CSR scores of DIVscore, PRODscore, EMPRscore, COMscore, and GOVscore. The summary of the regression model, the ANOVA details, and the bivariate and partial correlations of the predictors are detailed in Table 29, Table 30, and Table 31 respectively.

Table 29

FF3FCOC Regression Model: Model Summary

Model Summary

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	*F* Change	df1	df2	Sig. *F* Change	
1	.612[a]	.375	.305	.0204379	.375	5.390	7	63	.000	
2	.639[b]	.414	.286	.0207152	.039	.665	5	58	.042	2.029

a. Predictors: (Constant), MTB, LogTotAsset, Leverage, EBITDAMgn, LogME, ASSETGRTH, CAPEXR

b. Predictors: (Constant), MTB, LogTotAsset, Leverage, EBITDAMgn, LogME, ASSETGRTH, CAPEXR, DIVscore, PRODscore, EMPRscore, COMscore, GOVscore

c. Dependent Variable: FF3FCOC

Table 30

FF3FCOC Regression Model: ANOVA

Step		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.016	7	.002	5.390	.000
	Residual	.026	63	.000		
	Total	.042	70			
2	Regression	.017	12	.001	3.338	.001
	Residual	.025	58	.000		
	Total	.042	70			

Note: Step 1 contains the dependent variable (FF3FCOC) and the control variables (MTB, LogTotAsset, Leverage, EBITDAMgn, LogME, ASSETGRTH, CAPEXR) while Step 2 contains the variables under Step 1 and the CSR factors (DIVscore, PRODscore, EMPRscore, COMscore, GOVscore).

Table 31

Bivariate and Partial Correlations of the Predictors with FF3FCOC

Predictors	Correlation between each predictor and the FF3FCOC (zero order)	Correlation between each predictor and the FF3FCOC controlling for all other predictors
LogTotAsset	.008	-.019
ASSETGRTH	-.167	-.196
CAPEXR	-.102	-.215
Leverage	-.339	-.131
LogME	.221	.256
EBITDAMgn	.314	.385
MTB	-.148	-.238
COMscore	-.134	.073
GOVscore	.228	.038
DIVscore	-.162	-.085
EMPRscore	-.094	-.141
PRODscore	.107	.013

As shown in the Table 29 and the Table 30 the linear combination of the 12 control and predictor variables was significantly related to the FF3FCOC, $R^2 = .41$, adjusted $R^2 = .29$, $F(12,58) = 3.34$, $p < .05$. The control variables predicted significantly over and above the CSR scores, $R^2 = .37$, $F(7,63) = 5.39$, $p < .001$. Also, the CSR scores equally predicted significantly after partialling out the effects of the control variables, R^2 change = .04, $F(5,58) = .66$, $p = .04$. Based on these results, the CSR scores appear to offer significant additional predictive power beyond that contributed by the control variables, with additional 3.9% variations in FF3FCOC explained by the CSR scores.

Similarly, the ANOVA result of the test whether the FF3FCOC model significantly predicted the outcome better than the mean was presented in Table 30.

When only control variables were included in the model (i.e. step 1), the FF3FCOC was strongly predicted by these control variables, $F(7,63) = 5.39$, $p < .001$. The inclusion of the CSR scores (the independent variables in to the model) led to some improvement in the explained variation, $F(5,58) = .66$, significant, $p = .04$. This was interpreted to mean that the observed improvement resulting from the inclusion of the CSR scores into the regression model could not have occurred by chance.

LogME and EBITDAMgn were strongly positively related to the FF3FCOC with significant positive bivariate and partial correlation coefficients. Leverage was strongly negatively related to FF3FCOC only under bivariate correlation while CAPEXR and MTB were strongly negatively related to FF3FCOC only under partial correlation. LogTotAsset and ASSETGRTH did not show strong relationship with FF3FCOC either under bivariate correlation or partial correlation.

I also performed the test of cross-validity of the FF3FCOC model by calculating the Adjusted R^2 using Stein's formula:

$$\text{Adjusted } R^2 = 1 - \left(\frac{n-1}{n-k-1}\right)\left(\frac{n-2}{n-k-2}\right)\left(\frac{n+1}{n}\right)(1-R^2) \qquad (11)$$

where 'n' represents the sample size and 'k' stands for the number of independent variables. This test yielded adjusted R^2 of.27 which was close to the SPPS-determined adjusted R^2 of .30, an indication that the cross validity of this model was good.

In the Table 29 Durbin-Watson statistic was shown as 2.03, representing the measure of the extent of autocorrelation in the data used in the testing of the FF3FCOC

model. As stated earlier, Durbin-Watson statistic lying between 1 and 3 or being close to 2 showed absence of autocorrelation. The Durbin-Watson statistic in the FF3FCOC model of 2.03 lied between 1 and 3 and was also close to 2, indicating that the assumption of absence of autocorrelation in the data was not violated.

Evaluating the parameters in the FF3FCOC model.

The parameters in the FF3FCOC model, including the beta and correlation coefficients, were evaluated. The summary of the coefficients for each of the variables in the FF3FCOC model is shown in Table 32.

Table 32

Coefficients in the FF3FCOC Model

Model	Unstandardized Coefficients		Std. Coef-ficients	*t*	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tole-rance	VIF
(Constant)	.120	.118		1.017	.313	-.116	.356					
LogTotAsset	-.001	.003	-.020	-.190	.850	-.006	.005	.008	-.025	-.019	.908	1.102
ASSETGRTH	-.102	.053	-.253	-1.945	.057	-.208	.003	-.167	-.247	-.196	.603	1.659
CAPEXR	-.947	.444	-.273	-2.133	.037	-1.836	-.058	-.102	-.270	-.215	.623	1.604
Leverage	-.092	.071	-.172	-1.300	.199	-.233	.050	-.339	-.168	-.131	.583	1.714
LogME	.006	.002	.301	2.539	.014	.001	.011	.221	.316	.256	.725	1.380
EBITDAMgn	.054	.014	.420	3.812	.000	.025	.082	.314	.448	.385	.841	1.190
MTB	-.016	.007	-.340	-2.356	.022	-.029	-.002	-.148	-.296	-.238	.490	2.039
COMscore	.013	.018	.086	.724	.472	-.023	.049	-.134	.095	.073	.719	1.391
GOVscore	.008	.022	.053	.378	.007	-.036	.052	.050	.228	.038	.518	1.931
DIVscore	-.012	.014	-.094	-.846	.401	-.040	.016	-.162	-.110	-.085	.827	1.210
EMPRscore	-.033	.024	-.153	-1.394	.169	-.082	.015	-.094	-.180	-.141	.849	1.178
PRODscore	.003	.025	.015	.128	.899	-.048	.054	.107	.017	.013	.724	1.381

The regression coefficients in the Table 32 were substituted in the FF3FCOC model yielding the following equation:

$$FF3FCOC = 0.12 + 0.09LogCOMscore + 0.05LogGOVscore - 0.09LogDIVscore - 0.15LogEMPRscore + 0.02LogPRODscore - 0.02LogTotAsset_t - 0.17Lev - 0.25AssetGrowth + 0.42EBITDAMgn - 0.34MTB - 0.27CapexR + 0.30LogME$$

The FF3FCOC model showed that among the CSR factors, COMscore, GOVscore, and PRODscore had positive standardized beta, implying that efforts made to improve them would increase FF3FCOC and hurt financial performance. DIVscore and EMPRscore had negative standardized beta, implying that efforts made to improve their scores would reduce FF3FCOC and improve financial performance. Of all the CSR factors, only GOVscore had a significant beta, $t = .38$, $p = .01$. Similarly, LogME and EBITDAMgn had positive standardized beta, implying that increasing them would increase the FF3FCOC and reduce financial performance while LogToTAsset, ASSETGRTH, CAPEXR, Leverage, and MTB had negative standardized betas, implying that increasing them would reduce FF3FCOC and improve the financial performance. However, the beta values of LogToTAsset and Leverage were not significant, $p > .05$, implying that their beta values were negligible. The standardized beta values of the remaining control variables (ASSETGRTH, CAPEXR, LogME, EBITDAMgn and MTB) had significant standardized beta, $p < .05$, implying that the betas were not negligible.

As shown in the Table 32, the largest VIF ranged between 1.1 and 2.04, with the average of 1.48. These values were within the acceptable 2. The tolerance factor also

ranged from 0.49 to 0.91 with an average of 0.70 which were above the minimum of 0.1. These suggested that multicollinearity assumption in the FF3FCOC model was not violated.

Evaluating the correlation coefficients in the FF3FCOC model.

The Pearson partial correlation coefficient was obtained for the FF3FCOC model. Table 33 presented these correlation coefficients for each of the variables including their *p* values. Significant partial correlations with FF3FCOC were recorded in EBITDAMgn (r = .31, p = .004), Leverage (r = -.34, p = .002), LogME (r = .22, p = .03) and GOVscore (r = .23, p = .03). The other variables showed no significant partial correlations with FF3FCOC, p>.05. Of the four control variables with insignificant correlation coefficients, only LogTotAsset had positive correlation coefficient while ASSETGRTH, CAPEXR, and MTB had negative correlation coefficients. Out of the four CSR factors that had insignificant correlation coefficients, only PRODscore had a positive correlation coefficient while COMscore, DIVscore and EMPRscore had negative correlation coefficients.

As shown in Table 33, the highest correlation coefficient (r) was .50 and none of the variables had correlation coefficient that was greater than .9. Therefore, there was no evidence that multicollinearity was present in the data.

Table 33

Correlation Coefficients of FF3FCOC Model

	FF3FCOC	LogTotAsset	ASSET-GRTH	CAPEXR	Leverage	LogME	EBITDA Mgn	MTB	COM score	GOV score	DIV score	EMPR score	PROD score
FF3FCOC	1												
LogTotAsset	0.008	1											
Sig. (1-tailed)	0.474												
ASSETGRTH	-0.167	-0.031	1										
Sig. (1-tailed)	0.082	0.398											
CAPEXR	-0.102	-0.135	-0.306	1									
Sig. (1-tailed)	0.199	0.131	0.005										
Leverage	-0.339	-0.176	-0.182	0.357	1								
Sig. (1-tailed)	0.002	0.071	0.064	0.001									
LogME	0.221	0.037	0.299	-0.033	-0.295	1							
Sig. (1-tailed)	0.032	0.38	0.006	0.394	0.006								
EBITDAMgn	0.314	-0.193	0.058	0.089	0.019	0.057	1						
Sig. (1-tailed)	0.004	0.054	0.315	0.231	0.439	0.319							
MTB	-0.148	-0.006	0.501	-0.373	-0.035	0.267	0.242	1					
Sig. (1-tailed)	0.109	0.481	0	0.001	0.387	0.012	0.021						
COMscore	-0.134	-0.045	0.102	-0.026	0.118	-0.09	-0.034	0.292	1				
Sig. (1-tailed)	0.133	0.355	0.199	0.415	0.164	0.227	0.388	0.007					
GOVscore	0.228	0.078	0.006	-0.148	-0.38	0.076	0.018	-0.122	-0.403	1			
Sig. (1-tailed)	0.028	0.26	0.481	0.11	0.001	0.264	0.441	0.155	0				
DIVscore	-0.162	-0.079	0.072	0.015	0.142	-0.104	0.022	-0.039	0.055	-0.354	1		
Sig. (1-tailed)	0.089	0.256	0.274	0.45	0.119	0.194	0.429	0.374	0.323	0.001			

EMPRscore	-0.094	-0.078	-0.172	-0.061	0.178	0.017	0	-0.037	0.077	0.029	-0.02	1
Sig. (1-tailed)	0.218	0.258	0.076	0.305	0.069	0.444	0.498	0.381	0.262	0.404	0.435	
PRODscore	0.107	0.081	-0.159	-0.024	0.033	0.034	0.094	0.06	-0.195	0.387	-0.178	-0.015	1
Sig. (1-tailed)	0.188	0.251	0.093	0.42	0.392	0.39	0.217	0.308	0.052	0	0.069	0.451	

I attempted to further measure the effect size of the model through the correlation coefficients. The effect size of the variables that reported an effect in the testing of the FF3FCOC model was presented in Table 34. Only LogTotAsset did not report an effect, because its correlation coefficient was less than .1. As stated earlier, this followed Field's (2009, p. 57) suggestion that correlation coefficients stand for the effect size of the regression model, with +-.1, +-.3, and +-.5 representing small effect, medium effect, and large effect respectively.

Table 34

Determination of Effect Size in the FF3FCOC Model

Variable	Correlation Coefficient	Effect Size
EBITDAMgn	0.3	Medium
Leverage	-0.3	Medium
GOVscore	0.2	Small
LogME	0.2	Small
PRODscore	0.1	Small
EMPRscore	-0.1	Small
CAPEXR	-0.1	Small
COMscore	-0.1	Small
MTB	-0.1	Small
DIVscore	-0.2	Small
ASSETGRTH	-0.2	Small

Evaluation of homogeneity of variance assumption in the FF3FCOC model.

The assumption of homogeneity of variance was tested and was found not to be violated. Based on the mean, Levene statistic = 0.14, p = .87 (not significant). The Levene statistics for FF3FCOC model based on the three measures of central tendency were presented in Table 35.

Table 35

Levene Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
FF3FCOC	Based on Mean	.140	2	66	.870
	Based on Median	.120	2	66	.887
	Based on Median and with adjusted df	.120	2	62.253	.887
	Based on trimmed mean	.082	2	66	.922

Evaluation of homoscedasticity assumption in the MTB model.

A scatter plot of ZRSID against the ZPRED was depicted in Figure 9. There appeared to be no clear pattern in the dots contained in the figure and the graph did not funnel out, suggesting that the assumption of homoscedasticity was met in this data.

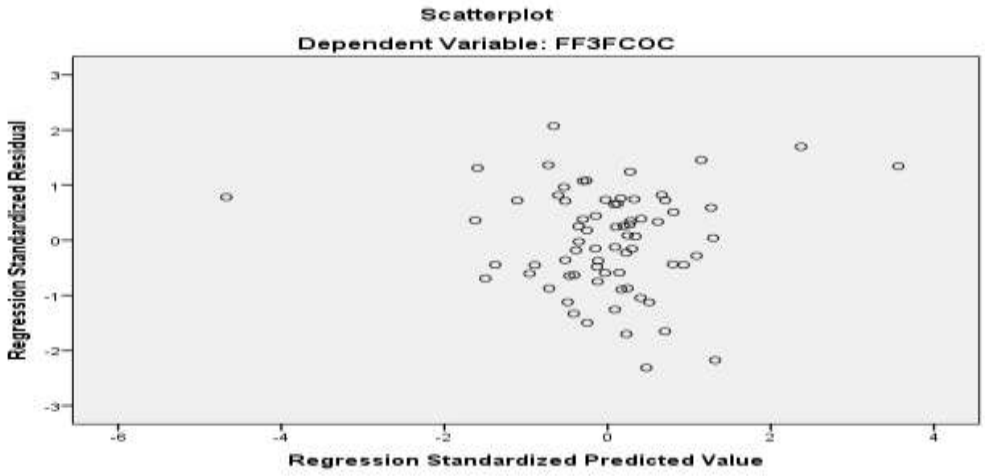

Figure 9. Plot of *ZRESID against *ZPRED of FF3FCOC OLS Model

Test of linearity assumption in the FF3FCOC model.

The dots in the Figure 9 did not reveal any curve pattern or curvilinear relationship between the *ZRESID and *ZPRED. Based on Field's (2009, p. 247) suggestion, the absence of curvilinear relationship in the graph is indicative that the linearity assumption made on the FF3FCOC regression model was not violated.

Evaluation of normality assumption in the FF3FCOC model.

Like I did in the earlier models, both graphical and quantitative approaches were adopted to test the assumption of normality of the data used for FF3FCOC model. The histogram in Figure 10 showed a normal bell-shaped curve, suggesting that the distribution followed normal distribution with mean of 0 and standard deviation of 1.

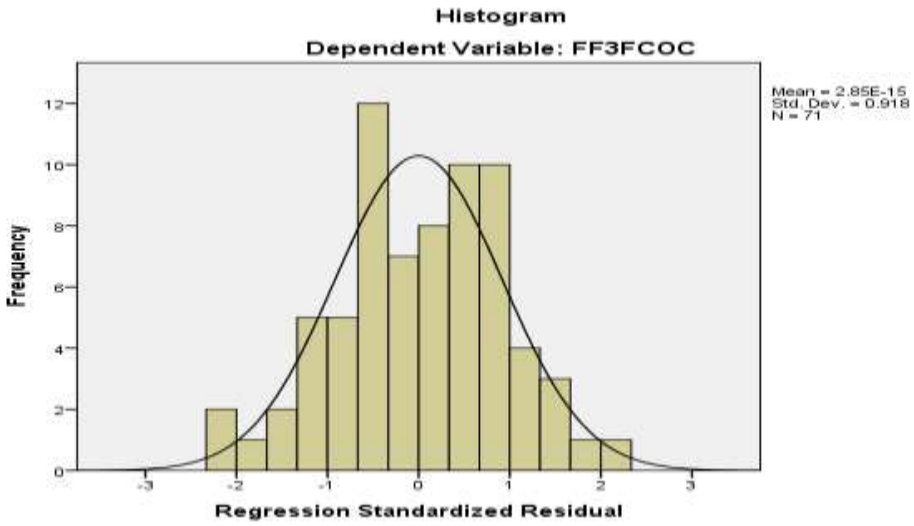

Figure 10. Histogram of normally distributed residuals for FF3FCOC's OLS Model

The normal P-P plot of the regression standardized residuals is shown in Figure 11, with evidence that the dots, representing the residuals, clustered around the regression line for the FF3FCOC criterion variable.

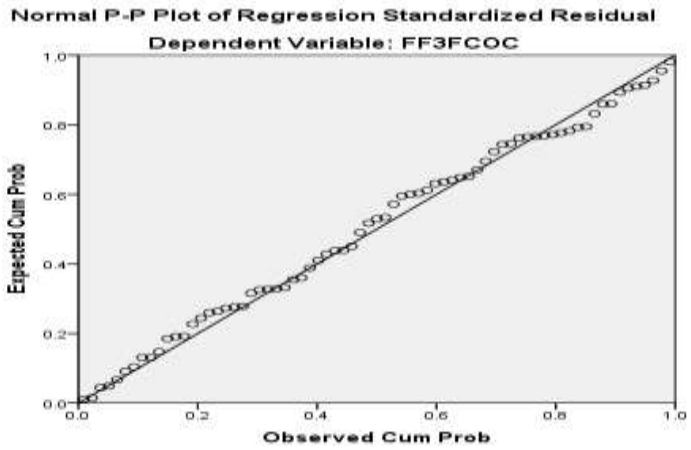

Figure 11. The normal P-P Plot of expected against observed cumulative probability of FF3FCOC OLS Model.

The individual skewness and kurtosis of FF3FCOC and the independent variables (CSR scores) were not too far from 0, and their ZSkewness and ZKurtosis were also within the standard score of +/-2.58, which was applicable to the medium size sample of this study. The distributions of the data relating to the dependent and the independent variables of the FF3FCOC model therefore followed normal distributions. The skewness and kurtosis as well as their standard scores for each of the variables relevant to the FF3FCOC model are presented in Table 36.

Table 36

Test of Normality: Standard Scores of Skewness and Kurtosis

	Skewness	Kurtosis	S.E. Skewness	S.E. Kurtosis	ZSkewness	ZKurtosis
COC	0.615	0.282	0.285	0.563	2.158	0.501
COMscore	0.126	-0.346	0.285	0.563	0.442	-0.615
GOVscore	-0.733	0.943	0.285	0.563	-2.572	1.675
DIVscore	0.450	-0.418	0.285	0.563	1.579	-0.742
EMPRscore	-0.491	-0.282	0.285	0.563	-1.723	-0.501
PRODscore	-0.287	0.564	0.285	0.563	-1.007	1.002

In line with Field's (2009) suggestion, I performed a further quantitative test of Kolmogorov-Smirnov and that of Shapiro-Wilk to evaluate the extent of compliance with the assumption of normality of distribution. The results of the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality for FF3FCOC model were presented in Table 37. The statistics of both Kolmogorov-Smirnov and Shapiro-Wilk tests were not significant ($p > .05$) for FF3FCOC against each of the criterion variables, a further indication that the distributions of the FF3FCOC and the CSR scores were normal.

Table 37

Kolmogorov-Smirnov and Shapiro-Wilk Tests of Normality

		Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
FF3FCOC	COMscore	0.087	71	.200	0.961	32	0.293
	GOVscore	0.079	71	.200	0.966	40	0.26
	DIVscore	0.162	71	.200	0.921	13	0.261
	EMPRscore	0.081	71	.200	0.96	49	0.091
	PRODscore	0.077	71	.200	0.967	68	0.064

Summary

The results of my research were presented in this chapter, with the aim of answering the two research questions posed at the beginning of the chapter. Centrally, I sought to ascertain if financial performance, however defined, could be predicted by corporate social conduct.

In the context of the US banking sector, my first research question was: to what extent can the individual CSR factors of a bank predict the bank's accounting performance when the effects of the bank unique and management preference factors are

controlled? In analyzing this question, two-pronged approach was adopted: first, financial performance was taken to mean EBITDA margin, a purely book based parameter, and second, financial performance was taken to mean MTB ratio, a mixed based parameter.

The result of my hypothesis testing showed that the individual CSR scores on community, governance, diversity, employee relation, and product did not predict EBITDA margin significantly over and above the specified control variables. Only 0.1% additional variation in EBITDA margin was attributed to the CSR scores, which was not significant at 5% significant level. Therefore the null hypothesis cannot be rejected in favour of the alternative hypothesis at 5% significant level. However, I found negative relationship between community and product factors and EBITDA margin and positive relationship between governance, diversity, and employee relation and EBITDA margin.

Similarly, when the financial performance was taken to mean the MTB, my hypothesis testing showed that the individual CSR scores on community, governance, diversity, employee relation, and product still did not predict MTB significantly after controlling the effects of the specified confounding variables. The CSR factors could not explain any meaningful amount of the variation in the MTB. Therefore, the null hypothesis cannot be rejected in favour of the alternative hypothesis at 5% significant level. Notwithstanding, I found that governance had a strong predictive influence on MTB because it showed a standardized beta that was significant, $t = 2.09$, $p = .04$. I also found that community and governance were significantly positively related with MTB, $r = .29$ and $r = .23$ respectively, $p < .05$. The analysis also showed that diversity and

employee relation had positive relationship with MTB while product was negatively related with MTB.

The second question was whether the individual CSR factors of banks could help in predicting the banks' cost of capital. My data analysis showed that the CSR scores could significantly predict FF3FCOC after partialling out the effects of the control variables, as significant variation of 3.9% in FF3FCOC was explained by these factors. Therefore, the null hypothesis should be rejected in favour of the alternative hypothesis at 5% significant level. Further analysis showed that, of all the CSR scores, only GOVscore had a significant beta parameter (B = .05), t = .38, p = .01. GOVscore was also significantly associated with the FF4FCOC, r = .23, p = .03. GOVscore therefore accounted for the observed significant variations in FF3FCOC explained by the CSR scores. I equally found that COMscore, GOVscore, and PRODscore were positively associated with FF3FCOC while DIVscore and EMPRscore were negatively associated with the FF3FCOC.

In chapter 5, I provided a detailed discussion of these findings, with the explanation of the supportive facts on the outcome. I also discussed these findings in the context of the literature and suggested a direction for future research on the topic.

Chapter 5: Discussions, Conclusions, and Recommendations

Summary of Findings

In this quantitative study, I examined the relationship between corporate social responsibility and financial performance of large banks in the United States, using the data from 2011 to 2014. The aim of the study was to examine the effect of the individual CSR factors on the financial performance measures with a view to measuring the extent to which social conduct could predict financial performance. The increasing pressure on the financial institutions following the 2007-2008 subprime mortgage crises that led to global economic meltdown compelled them to aggressively embark on social conduct activities. But whether social activities could stimulate the bottom line was a question that was yet to be resolved by researchers. The purpose of the study, being relational in nature, necessitated the adoption of a correlational strategy for the investigation. In order to fulfill the purpose of the research I proposed two research questions:

1. To what extent can the individual CSR components predict the bank accounting performance, controlling for the effects of the bank unique and management preference factors?
2. To what extent can the individual CSR components of banks help in predicting the banks' cost of capital, controlling for the effects of the bank unique and management preference factors?

The individual CSR factors examined included community factor, governance factor, diversity factor, employee relation factor, and product factor. In order to broaden the scope of the research, a bidimensional view was taken of the accounting performance

in the Research Question 1: a purely book-based approach using EBITDA margin and a mixed measure approach using MTB ratio. The cost of capital focused on in the Research Question 2 was also a measure of financial performance, connoting an inverse interpretation, i.e., a higher cost of capital means lower financial performance while a lower cost of capital implies higher financial performance.

In the first research question, the findings revealed that CSR factors did not significantly predict the book-based accounting returns. Only 0.1% of the variation in the EBITDA margin was predicted by the CSR components and this contribution was not statistically significant at 5% significance level. The confounding factors controlled in the model (previous year EBITDA margin, leverage, asset growth, total asset, market capitalization, and capital expenditure) did explain 96.6% of the variation in the current year EBITDA margin, $F(6,64) = 300.34$, $p < .001$, significant. The results showed further that none of the five CSR factors studied had any significant influence on the booked-based accounting return. However, the CSR factors behaved differently with regard to the accounting return. While governance, diversity and employee relation factors showed positive relation with EBITDA margin, community and product factors were negatively related with the book-based accounting return, though insignificantly. An implication of these findings was that bank business managers might not be able to improve their book-based accounting returns significantly by doing good, suggesting further that efforts made and the resources expended to improve social conduct by business managers were not rewarded with improved book-based accounting returns. I provided further explanation of this implication in subsequent section of this chapter. Similarly, the results also showed

that the CSR factors did not predict the mixed-based accounting returns significantly, as no meaningful variation in MTB was explained by the CSR factors. The controlled confounding factors explained 99.7% of the variations in the MTB, which was statistically significant. However, governance factor not only displayed a strong positive influence on the MTB, measured by the size of the standardized beta, ($t = 2.09$, $p < .05$, significant), it was also positively related to MTB (though low correlation). As in EBITDA margin, governance, diversity, and employee relations showed positive relation with the MTB while product showed negative relation with the MTB. But this time around community showed positive relation with the MTB. An implication of this finding was that business managers would not be able to manipulate social conduct to improve their accounting performance, apart from governance factor. This implies that corporate governance is a factor that needs to be recon with while strategizing to improve the bottom line. Further discussions on these findings were provided in the later sections.

The findings on the Research Question 2 differed from those of the Research Question 1. CSR factors predicted Fama-French cost of capital significantly. Fama-French cost of capital is a purely market-revealed measure of performance. The CSR factors explained 3.9% of the variations in the cost of capital, which was statistically significant, $p < .05$. Like in the case of MTB, governance displayed strong positive influence on the cost of capital and therefore largely accounted for the variation explained by the CSR factors. Furthermore, community, governance, and product were positively related to cost of capital while diversity and employee relation were negatively related with cost of capital. An implication of these findings was that social conduct

remained a critical factor that investors (shareholders) consider in their investment strategies. Among all the CSR factors, corporate governance appeared to be at the forefront of the social responsibility factors that shareholders used to screen their investment decisions. The detailed discussion of the implications of these findings was provided in the later section of the chapter.

In both research questions, the financial factors controlled in the study, comprising previous year financial performance, management preference in the form of capital expenditure in relation to the total assets, market capitalization, asset growth, and total assets, dominated the prediction of the financial performance measures. This suggests that managers should consider these factors as major determinants of financial performance, and strategies should be formulated around them to optimize the bottom line.

In the next section of this chapter, I provide the interpretation of the enumerated findings. In this regard, I showed the findings that were consistent with the findings of some prior researchers, those that diverged from the findings in the prior studies, as well as those that were unique to this study. While interpreting these findings I was guided by the differing interpretations provided by different researchers to similar findings, in order to find a meaning for the findings in this study in the context of the literature. The interpretation was also based on the Carol's (1979) framework of the stakeholder theory which provided a theoretical foundation for this study. The interpretation section was followed by the description of the limitations of the study, the recommendations for further research based on the prior and the current studies, the social change implications

at the firm level, at the policy level, at the professional practice level, and at the societal level. I then rounded off this report with the conclusion of the study, which provided the central message that formed the critical essence of the research.

Interpretation of Research Findings

In this section, the discussion of the interpretation of findings was structured into the overview of the literature relating to the findings of this study, interpretation of the findings on each research question covering the model-level findings and factor-level findings, relating the findings to the theoretical framework, and the implications of the interpretations for the empirical literature and the theory.

Overview of the Literature Relating to the Findings

As stated earlier in Chapter 2, divergent findings were reported in the empirical literature on the nature and the strength of the effects of the CSR activities on the financial performance of business firms. The results of the prior empirical studies of the effects of CSR on financial performance included those with strong positive effects, those with strong negative effects, those with neutral effects, and those with mixed effects. This study showed mixed effects of the CSR on the financial performance, depending on the particular model tested. The interpretations of the findings were also not consistent. Negative effect was interpreted to signify either the shareholders' confidence in the firm and their preparedness to accept lower returns in the short run or in alignment with their private social responsibility values (Jenson, 2010) or to signify the presence of managerial opportunism (Jiao, 2010).

As observed in Chapter 1, the increasing pressure on banks after the 2007-2008 financial crisis, forced them to intensify social responsibility to bolster stakeholders' confidence and redeem their image (Grove, Patelli, Victoravich, & Xu, 2011; Montiel & Delgado-Ceballos, 2014). Orlitzky (2013) also shared the view that the stakeholder orientation inherent in the CSR is a restraint to value maximization. These pessimistic views on business engagement in social conduct seemed to be supported by the global business leaders, who recently expressed skepticism in the CSR-business value link and therefore questioned the continued championing of the sustainability drive by the business sector (UN Global Compact & Accenture, 2013). These downcast views on CSR suggest that business firms engaged in CSR activities not necessarily because they believed it would help to improve their bottom line but as a reactive strategy either to respond to an adverse development (like the need to restore stakeholders' confidence following the alleged role of the banking sector in the recent subprime crisis) or to increase the provision of social goods so as to avoid the risk of being ostracized in the industry. I interpreted the results of the analysis of the research questions proposed in this study in the context of this multiperspective literature.

Research Question 1: Effect of CSR Factors on Accounting Returns

Research Question 1 asked: To what extent can the individual CSR components predict the bank accounting returns, controlling for the effects of the bank unique and management preference factors? The hypothesized individual CSR factors were community, governance, diversity, employee relation, and product, while the accounting

returns were taken as the EBITDA margin (booked based returns) in the first instance and MTB ratio (mixed based return) in the second instance, each tested separately. Consistent with the empirical literature on the effect of the CSR on the financial performance and the insights from the stakeholder theory, I claimed that the CSR factors had significant positive effect on the accounting returns.

In conflict with my claim, I found that CSR factors did not significantly predict accounting returns, whether book-based or mixed measure. The model did not report any significant effect of the CSR factors on the accounting returns measured by EBITDA margin and MTB. This result was consistent with Soana (2011), in which no effect was observed between the multidimensional CSR ratings and accounting returns including ROA, ROE, CIR (cost to income ratio), MTB, and P/E ratio. The result was also consistent with Dinsmore (2014) who did not find significant effect of CSR on the financial performance in his study data. When no effect of CSR is observed on the financial performance, it implies that CSR is irrelevant to the financial returns of the business, which is consistent with the classical view of corporate social responsibility, as argued by Friedman (1970) and supported by Jensen (2010). Friedman contended that social responsibility and business are incompatible. If the two are incompatible, then CSR should produce no significant effect on the financial performance of a business, as revealed by the results of the Research Question 1. Research Question 1 supported the classical theory of corporate social responsibility. The observation of no effect of social conduct on financial performance also supported the pessimism expressed by some

empirical researchers (Grove, et al. 2011; Montiel & Delgado-Ceballos, 2014; Orlitzky, 2013; UN Global Compact & Accenture, 2013).

Conversely, the result of the absence of the effect of CSR on the accounting returns revealed by Research Question 1 was at variance with Servaes and Tamayo (2013), Moura-Leite, Padgett, and Galan (2014), and Saeidi, et al. (2015). In these studies, researchers found positive effects of the CSR factors on the accounting returns including ROA, ROE, net profit margin, and ROI. The result also contradicted the findings of Rahmawati & Dianita (2011) and Lioui & Sharma (2012), who found negative effect of the CSR factors on the financial performance.

While examining the direction of the relationship of the individual CSR factors on the financial performance, I found support for Lioui and Sharma's (2012) observation that not all the CSR activities have a positive effect on financial performance. In the Research Question 1, I observed that the individual CSR factors behaved differently with respect to either EBITDA margin or MTB. Governance had strong positive influence on accounting return, particularly on MTB. This was consistent with the finding by Rahmawati and Dianita (2011), who observed that weak corporate governance (e.g., aggressive earnings management) negatively affected financial performance, implying a positive relationship. Also, in Research Question 1, diversity and employee relation were positively associated with accounting return, consistent with Baird, et al. (2012) who found that firms that invested in diversity and in their employees improved their financial performance significantly. Product and community factors were negatively related to accounting returns in Research Question 1.

The effect of the control variables on the accounting returns was observed to be noteworthy. The control variables whose effects were parceled out while analyzing the Research Question 1 included asset volume, asset growth, capital expenditure/total asset ratio, leverage ratio, market capitalization, and prior-year financial performance measure (using the previous year's EBITDA margin or MTB ratio if the dependent variable is EBITDA margin or MTB ratio respectively). The result of the hierarchical unordered regression analysis showed that these control variables accounted for virtually all the variations in the accounting returns (96.6% of variations of EBITDA margin and 99.7% of variations in MTB), with virtually no meaningful amount of variation left for the CSR factors to explain. I interpreted this result to mean that control variables play more significant roles in explaining the effects of the CSR factors on the measures of financial performance. This position is consistent with the observation of Saeidi, et al. (2015) that the direct testing of the CSR on financial performance of a firm seemed to be spurious and imprecise, because of the many variables that have strong effects on a firm's financial performance. Further analysis revealed that not all the hypothesized control variables had significant influence on the financial performance. When EBITDA margin was used as a measure of the accounting return in the Research Question 1 of this study, I found significant effect on financial performance by only asset volume (a measure of size), $t = 2.36$, $p = .02$ (significant) and the previous year's EBITDA margin, $t = 40.19$, $p < .001$ (significant). Conversely, when MTB was used as a measure of the accounting returns in the Research Question 1, I found significant effect on the financial performance by capital expenditure/total asset ratio, $t = 2.81$, $p = .01$ (significant) and the previous

year's MTB, $t = 109.88$, $p < .001$ (significant). I interpreted these findings to mean that asset volume being a measure of size, capital expenditure to total asset ratio and the previous year's financial performance are critical to the explanation of the variations in the financial performance and should be adequately controlled in the studies involving the testing of the effects of corporate social responsibility factors on the financial performance of a firm. In either case, I did not find any significant effect of asset growth, leverage ratio, and market capitalization on the either measures of accounting return (EBITDA margin and MTB).

In summary, I did not find a strong effect of the CSR factors on the accounting financial performance measures in this study, which was both consistent with some studies and also contrary to many others. Governance did stand out among all the CSR factors hypothesized in this study and showed a strong influence on the accounting return. This explains why Jensen (2010) was apprehensive that managerial opportunism might be responsible for the observed aggressive engagement in social conduct by business firms. This is also in consonance with Jiraporn and Chintrakarn's (2013) observation that CEOs commit resources to CSR for selfish reasons such as to gain more power. Furthermore, the hypothesized control variables comprising asset volume, ratio of capital expenditure to total assets, and the previous year accounting returns accounted for an overwhelming proportion of the variations in the accounting returns, while the remaining variables asset growth, market capitalization, and leverage did not show any significant effect on the accounting returns.

Overall, the observation of no effect of social conduct on the financial performance supported the pessimism jointly expressed by researchers (Grove, et al. 2011; Montiel & Delgado-Ceballos, 2014; Orlitzky, 2013) and the global business leaders (UN Global Compact & Accenture, 2013). The result of the analysis of Research Question 2 showed how the investors reacted to the managerial involvement in the provision of social goods with no assurance of impacting positively on the bottom line of the business.

Research Question 2: CSR Factors and Cost of Capital

The Research Question 2 asked: To what extent can the individual CSR factors of a bank predict the bank's cost of capital, controlling for the effects of bank unique and management preference factors? The bank unique factors controlled while analyzing this research question included MTB ratio, total asset volume, asset growth, leverage, EBITDA margin, and market capitalization, while the management preference factor hypothesized was the ratio of capital expenditure to total asset. Based on the prevalent findings in the empirical literature (Cajias et al. 2014; Campbell et al. 2012; Ghoul et al. 2011; Gregory et al. 2014; Hajiha & Sarfaraz, 2013; Sun & Cui, 2014), I proposed in this research question that individual CSR factors could significantly predict cost of capital, a market-based measure of financial performance, and increased CSR activities should result in lower financing cost and greater value to the company.

The result of the investigation partially affirmed the proposition. I observed that the CSR factors could strongly predict the cost of capital of banks when the confounding

effects of the firm unique factors and the management preference factors were controlled. This was consistent with the prior research findings that an investment in CSR could enable the firms to raise equity finance at a cheaper rate or at a lower cost of capital (Cajias et al. 2014; Campbell et al. 2012; Ghoul et al. 2011; Gregory et al. 2014; Hajiha & Sarfaraz, 2013; Sun & Cui, 2014). In these studies, CSR factors were found to have impacted cost of capital negatively which, by implication, meant that the CSR factors positively influenced the financial performance. The significant explained variation observed in the Fama-French cost of capital model in this study was attributed to the substantial effect of governance factor, which displayed strong positive influence on the cost of capital. Governance also showed a significant correlation with the Fama-French cost of capital, though at a low level.

However, the result was not consistent with my proposition on the direction of the effect of the CSR factors on the financing cost. Rather than showing a negative effect of CSR factors on the cost of capital as expected, the results of the analysis of the Research Question 2 revealed a positive effect of the CSR factors on the market-revealed cost of capital. Hence, although the results of this study was in agreement with Cajias et al. (2014), Campbell et al. (2012), Ghoul et al. (2011), Gregory et al. (2014), Hajiha and Sarfaraz (2013), and Sun and Cui (2014) cited earlier in terms of the power of the multiple regression models, the direction of the observed effect differed significantly. While the researchers in the cited studies observed negative relationship between the CSR factors and the cost of capital, the results of the Research Question 2 in this study showed a positive effect of the CSR factors on the Fama-French cost of capital. Because I

did not sight any study among the peer reviewed resources used in the literature review with the result of the positive effect of the corporate social responsibility factors on the cost of capital, I hereby claim that this finding is novel and unique in the studies of the effect of CSR on cost of capital. Notwithstanding, this result calls for a careful interpretation.

A positive relationship of the CSR factors with cost of capital implies negative relationship with the market-based financial performance, translating to lower returns to the company due to the higher financing cost. Relying on Jenson's (2010) views on the need to carefully interpret the outcome of regression models in the research involving CSR activities and market-based financial performance, I interpreted the result of Research Question 2 to mean that investors perceived higher risk from the hypothesized banks that actively engaged in corporate social responsibilities and therefore demanded higher returns to compensate them for possible indulgence in managerial opportunism, which translated to higher cost of capital for the firm and, impliedly, lower profit. Jensen (2010) contended that, by engaging in aggressive CSR, business managers might indulge in extracting private benefits at the expense of the stockholders. Jiao (2010) attributed the resultant negative effect of CSR activities on the financial performance, as obtained from the outcome of the analysis of the Research Question 2, to managerial opportunism.

This further suggests that it is not to be taken for granted that investors would place a premium on the CSR activities of firms as suggested by the prior literature (Cajias et al. 2014; Campbell et al. 2012; Ghoul et al. 2011; Gregory et al. 2014; Hajiha & Sarfaraz, 2013; Sun & Cui, 2014); they could also discount the social conduct

particularly if they believed that the CSR activities did not align with the observable fundamental drivers of business performance. I therefore claim that the effect of the CSR activities of a firm on the firm's market-based financial performance may not necessarily be predicted reliably because such effect is largely determined by how the investors perceive the managerial activities. Investors may value the firm's social conduct and be contented with lower returns on their investments, implying lower cost of capital for the firm and higher profit for the firm. On the other hand, investors may equally discount such social activities by demanding higher returns, implying higher cost of capital and lower profits for the company. The latter situation therefore suggests lack of confidence in the social activities, leading to the demand for a premium to compensate them for the higher risk supposedly assumed. This view was consistent with the conclusion of Busch and Hoffmann (2011), Becchetti, et al. (2013) and Baird, et al. (2012) who alluded to the fact that when market based measures are adopted, CSR activities might go either way, depending on the shareholders' perception of the firms' social conduct.

In terms of the direction of the relationship between the individual CSR factors and the Fama-French cost of capital, I found that community, governance and product were positively associated with the cost of capital while diversity and employee relations were negatively related to the cost of capital. This suggests that shareholders penalized the hypothesized banks with higher cost of financing for increasing community relations activities, increasing their governance activities and improving and repositioning their products, which the investors did not value. The investors therefore raised their required rates of returns leading to higher cost of capital and lower profits for the hypothesized

banks. The impact of the relationship revealed by these three factors seemed to have explained the overall positive effect of the CSR factors on the Fama-French cost of capital observed in the model analyzing Research Question 2.

Conversely, the shareholders valued the social activities that were focused on improving the diversity and relations with the employees, as they believed such would help to enhance the banks' competitiveness and enable them to create value. They were therefore willing to accept lower returns, translating to lower cost of capital for the increased social conduct in diversity and employee relations activities. As noted earlier, the different behavioral patterns of CSR factors on the financial performance appear to be a common development (Lioui & Sharma, 2012).

Like I did under the Research Question 1, I also examined the effects of the confounding variables controlled while analyzing the Research Question 2. As noted earlier, these variables were MTB ratio, total asset volume, asset growth, leverage, EBITDA margin, market capitalization, and the ratio of capital expenditure to total asset. After performing the hierarchical unordered regression analysis on the data, I found that these control variables accounted for a sizeable proportion of the variations in the Fama-French cost of capital (37.5% of variations of the FF3F cost of capital). This result was interpreted to mean that the hypothesized control variables play key roles in determining the effects of the CSR factors on the measures of financial performance, further confirming the earlier synthesis that the direct testing of the CSR on financial performance of a firm appeared to be spurious and imprecise due to general influence of control variables on a firm's financial performance (Saeidi, et al. 2015). Further analysis

revealed that not all the hypothesized control variables had significant influence on the cost of capital. Showing significant influence on the Fama-French cost of capital were the ratio of the capital expenditure to total asset, $t = -2.13$, $p = .04$ (significant), market capitalization, $t = 2.54$, $p = .01$ (significant), EBITDA margin, $t = 3.81$, $p < .001$ (significant), and MTB ratio, $t = -2.36$, $p = .02$ (significant). Total asset volume, asset growth, and leverage did not reveal any significant influence on the cost of capital.

Research Findings and the Theoretical Framework of the Study

Corporate social responsibility (CSR) is alien to the Smithsonian economic thoughts, as business corporations are obliged only to pursue profit making for their owners (Friedman, 1970). This neoclassical theoretical perspective to CSR presupposes that any benevolent attempt by business managers to render social service is classified as unethical and amounts to a breach of the agency contract between the managers and the business owners. Jenson (2010) reiterated that divergence from profit making goal to the pursuit of social ends creates an opportunity for managers to move away from their radar of control into seeking private benefits to the detriment of the stockholders and other stakeholders of the business.

Stakeholder perspective was later conceived in a way to justify why doing good to stakeholders is really good for the business. Freeman (1984) propounded the stakeholder theory as a paradigm shift from the neoclassical socioeconomic thought. As a good management theory, stakeholder theory is the proposition that engagement of business firms in social activities enables them to create an enabling environment for the firms to

gain competitive advantage and improve their bottom line (Busch & Hoffmann, 2011). As explained in chapter 2, stakeholder theory is the dominating theory in the empirical CSR literature. Leaning on the enlightened self-interest argument of the stakeholder theory, Deng et al. (2013) found that the acquirer's social performance is positively related to merger performance, Orlitzky (2013) found evidence that corporations are under increasing pressure to become more socially responsible, Jiao (2010) used the theory to test if the stakeholder welfare impacts on the firm valuation, Busch and Hoffmann (2011) tested if the climate change impacts on the financial performance of firms, Lioui and Sharma (2012) examined the effects of environmental factors on the profitability of a business, and Ghoul et al. (2011) examined the CSR impacts on the financial risk of a company. On the strength of its popularity among researchers, I applied the stakeholder theory to guide my study of the effects of the individual CSR factors on the financial performance of banks in the United States. I provided below the implications of my research findings for the stakeholder theory.

Stakeholder Theory: Interpretation of Findings on Research Question 1

Investigation of the effect of CSR factors on accounting returns revealed that CSR factors cannot significantly predict the accounting returns, whether in terms of EBITDA margin or MTB. This result of no effect therefore did not support the stakeholder theory. Stakeholder theory is the perspective that business activities aimed at pleasing the stakeholders should help the business to create competitive advantage and improve the financial performance. The outcome of the investigation of the Research Question 1

therefore aligns with the irrelevance theorem of social conduct for business firm. This outcome therefore reinforces Friedman's (1970) contention that business firms should not engage in social responsibility.

Stakeholder Theory: Interpretation of Findings on Research Question 2

Research Question 2 is the proposition that individual CSR factors of a bank can help in predicting the bank's cost of capital. I claimed that increased CSR activities should lead to the reduction of cost of capital. The analysis of the question showed that the CSR factors can help in predicting the cost of capital of the hypothesized banks, in support of the stakeholder theory. Even though the investigation outcome was that the increased social activities led to higher cost of capital, the observed positive relationship between CSR activities and the cost of capital in no way nullify the fact that social activities are relevant to the prediction of the cost of capital. It is only that the direction of the prediction of cost of capital seems to be a question of how the relevant stakeholders value the social activities. Social activities may be valued positively or negatively; but however they are valued would determine the direction of the influence of the CSR activities on the financial performance of a business firm.

In summary, there is consistency between the results of the Research Question 1 and those of the Research Question 2. While the result of Research Question 1 indicated that CSR conduct had no significant effect on the financial performance of the banks, the result of the Research Question 2 demonstrated that shareholders (investors) reacted by penalizing management through increased required rates of returns (or cost of capital) for

engaging in the social activities that had no potential to improve the bottom line of the business. This internal consistency in the findings of this research is a key contribution to the literature. Furthermore, the investors' action could be attributed to information asymmetry, as they might not have been well informed about the essence and the potential long-term value of the social activities. This interpretation calls for increased communication with and strategic engagement of the investors in the management of the corporations.

Limitations of the Study

This study was focused on the banking industry in the United States. Hence, it would not be appropriate to generalize the findings and conclusion of the study outside the banking industry of the United States. Any attempt to generalize the findings of the study beyond its context may render such generalized conclusions invalid. The study suffers from a number of limitations that may further constrain its generalizability and trustworthiness.

First, the plan was to randomize the sample, but this could not be achieved because of the incomplete sampling frame. The sampling frame required that the sample be drawn from the list of banks that were on the MSCI social rating list. However, I discovered that many banks that were on MSCI rating list did not have complete financial data on the Bankscope database. Also, some banks that were on the Bankscope database were not on the MSCI rating list. I finally came up with the intersection set of 71 banks, which were ethically rated and which also had complete financial data. Therefore, the

inability to achieve the planned randomization of the sample constitutes a limitation to the generalizability of the study findings.

Second, for the reason explained above, the sample size of 71 banks used for this study was another limitation. Selection of only 71 banks in a population of large banks numbering over 6,000 may not be adequately representative. In the chapter 3, I explained that the sample size was to be 92 banks, a number that came up when I ran the G*Power statistical tool. The limited sample size therefore further constrains the generalizability of the findings and conclusions of this study to the entire population.

Third, the cost of the accessible MSCI data constituted a limitation to the study. During the data collection, I discovered that I could only have access to the CSR ratings data for the period from 2011. To access the data for a period earlier than 2011 required a payment of a sizeable amount of money, which I could not afford within my available financial resources. I therefore obtained the financial data and the stock market data for the period from 2010 to 2014 because of the need to calculate the growth rates as well as the need to lag the CSR independent variables. The selected period of study of only 5 years is too short to permit unrestricted generalization of the study findings.

Fourth, the secondary data used for this study constitutes a limitation. Secondary data are data that were collected for a different purpose. Using such a data for other purposes is fraught with risk. Trustworthiness issue would also arise, because of the collection and processing errors that could have inadvertently been made by the people involved in those processes. Deliberate manipulation of the data, particularly the financial data, during the intermediate stages of processing also may not be ruled out completely.

The financial data of the banks were extracted from the regulatory returns filed by those banks. There is tendency that those financial data might have been tainted by management in order to suppress a problem or to window dress their accounts for selfish reasons. The combined effects of these data errors and deliberate data compromise by the personnel of the banks constitute integrity issue that reduces the trustworthiness of the data and of any research study that utilizes such data.

Fifth, the limited number of variables I used in this study is also a source of limitations of the study. Generally, MSCI KLD provides social ratings data for over 3,000 large and listed US companies. The ratings were available in two categories, comprising qualitative screen (community, governance, diversity, employee relation, product, environment, and human right) and exclusionary screen (alcohol, tobacco, firearms, nuclear power, gambling, and military). While collecting data on the CSR scores, I discovered that ratings were not available for environment, human rights and all the factors under the exclusionary screen for the rated banks. I therefore excluded these variables from the study. If data were to be available for these excluded variables and the variables had been included in the study models, I might have obtained different and, possibly, more accurate results. The exclusion of these independent variables from the study is therefore a limitation of the study.

Sixth, another major limitation to this study relates to the construct validity for both dependent and independent variables. Construct validity refers to the extent to which a given measure approximates the theoretical construct being measured. Essentially, corporate social responsibility lacks definitional consensus and it is generally regarded as

essentially contested concept, with meanings varying with people and with contexts (Saeidi et al. 2014). The definitional lacuna that characterizes the CSR literature constitutes a limitation to this study. In this study, I conceptualized the CSR from the perspective of the MSCI, with the implication that it may be meaningless to compare the study with other studies that conceptualized CSR from a different perspective. The operationalization of the dependent variables and control variables is also subject to construct validity issues. I operationalized accounting returns as EBITDA margin and MTB. Alternative operationalization of the accounting returns exist in the empirical literature such as return on asset (Saeidi, et al. 2015), return on equity (Servaes & Tamayo, 2013), earnings per share (Becchetti, et al. 2011), and Tobin's q (Moura-Leite, et al. 2014). Using any or a combination of these alternatives could produce a different result. In the control variables, operationalization issues also arise. Size was operationalized as total assets, but some researchers had used turnover, or market capitalization. Therefore the construct validity issues may not permit a free generalization of the study or a perfect comparison with other studies.

Finally, the adopted design and methodology of the study might potentially constrain the validity of the conclusion and thus limit the extent to which the findings may be generalized or replicated. Quantitative design was adopted to examine the effect of the CSR factors on the financial performance of the hypothesized banks in the United States. Generally, quantitative strategy of inquiry has its inherent limitations. It seeks to explain phenomenon from the patterns contained in the numerical data, usually to deductively test the relationship between variables (Creswell, 2009, p. 4). Drawing

conclusions merely from the analysis of numerical data to explain social interaction is fraught with risk, without attempting to obtain the lived experience of the stakeholders on the social phenomenon. The nature of Research Question 2 is such that the shareholders expressed their level of satisfaction or dissatisfaction to the managerial activities on social issues, through the amounts of returns on the shares which were used to determine the cost of capital. Therefore, a mixed method strategy of inquiry, which involves the integrated use of both quantitative and qualitative approaches, may better explain the stakeholders' valuation of the managerial involvement in the provision of social goods. Because mixed method approach was not adopted in this study, it becomes difficult to accurately interpret the observed unusual positive effect of the CSR factors on the cost of capital revealed by the results of the analysis of the Research Question 2. The finding could only be justified by inferences in the theoretical literature; it lacks direct support in the empirical literature, as empirical literature rarely recorded positive effect of CSR factors on the cost of capital.

Recommendations for Action

Based on the interpretations of the findings of this research, I hereby offer a number of recommendations as a call for action by different groups: the stockholders or investors, the boards of directors which play oversight roles on the management of the banks, the management of the banks themselves, the banking regulators, and the public policy. These calls for actions are necessary in order to optimize the value accruing to the

various stakeholders from the engagement of firm management in the provision of public goods.

Recommendations for Shareholders

The findings of this study revealed that social conduct did not yield significant effect on the financial returns of the hypothesized companies, and the investors reacted by demanding a premium for the higher risk associated with the engagement of the businesses in the supposed unfruitful social activities. This therefore calls for increased shareholders' understanding of the managerial actions. The investors would be better informed of the actions taken by the corporation managers only if they were involved in the corporations' activities. Corporate governance requires that ownership responsibilities are attached to stockholding (OECD, 2008). This research therefore reinforced the international call for shareholders to be actively involved in the activities of the companies in which they invested so as to discharge their mandatory ownership responsibilities. Perhaps, if the shareholders had been better informed of the rationale for the social activities of their corporations, the premium taken for the social conduct would have been unnecessary, and the observed positive effect of social conduct on the cost of capital could have been reversed in alignment with the common pattern in the empirical literature.

Recommendations for Board of Directors

The dominant outcome of the empirical studies on the effect of social conduct on financial performance of business firms is positive relationship. Divergence from this

pattern has been attributed to the presence of managerial opportunism, where managers were deemed to be seeking private benefits from the increased social activities (Jiao, 2010). In this study, particularly in the analysis of the Research Question 1, I did not find evidence of the positive effect of social conduct on the financial performance of the hypothesized banks. The suggestion of the possibility of the presence of managerial opportunism calls for increased oversight of the board of directors on the activities of the management. Greater scrutiny of managerial actions would help to reduce the room for managerial opportunism that could motivate managers to engage in unfruitful social activities. Increased oversight would also help to ensure greater transparency particularly in the corporations' social investments. This would help the shareholders to take informed decisions on stock related transactions.

The observed influence of CSR on financial performance under the two research questions were attributed to governance factor. Governance factor was also positively correlated with the accounting returns and the cost of capital. This lends credence to the fact that the corporate governance of the hypothesized banks required considerable attention of the board. It is therefore recommended that the boards of directors pay due attention to corporate governance of the firms. MSCI corporate governance factors include such matters as the level of compensation for directors and the ownership related issues.

By virtue of the position of the directors as the link between the investors and the management, I also call on the boards of directors to leverage on their vantage position to facilitate the participation of the shareholders in the corporate activities, as part of their

share ownership responsibilities under the international corporate governance rule (OECD, 2008). This would help to ensure that the investors are well informed of the rationale for corporate activities such as social investments and would also help to minimize the bias or noise associated with the stock price movements. By so doing, it would be possible for the stock prices to respond appropriately to the economic fundamentals that have potential to affect the future performance of the stocks.

Recommendations for Management

The calls for management are threefold: (1) a need to ensure transparency of the managerial process; (2) a need to ensure full disclosure of relevant information to all stakeholders including the investing community; and (3) a need to strategically discriminate among the social activities as they are differently associated with financial performance. First, I recommend that corporation managers in banks manage the banks in a transparent manner. The fact that the investors demanded premiums for increased social activities connotes that they perceived the presence of managerial opportunism, which could have been possible because they did not perceive transparency of the managerial actions. Second, the fact that investors might not have appropriately valued the social programs of the hypothesized banks is indicative of the fact that the investing community lacked adequate information on the corporate social activities. Full disclosure of all relevant information would help to reduce the impact of the information asymmetry relating to the managerial actions.

The five hypothesized measures of corporate social responsibility behaved differently with respect to the financial performance measures. This suggests a strategic manipulation of each factor in order to obtain optimal desired impact on the bottom line. Diversity and employee relation were positively correlated with accounting returns and negatively correlated with the cost of capital, implying positive relationship with financial performance. This relationship suggests that it would be beneficial to intensify investment in the social activities relating to diversity and employee relations. Corporate managers should therefore ensure increasing diversity in the senior management and board appointment or promotion, provision of family benefits, adequate representativeness of the women and other minority groups including minority contracting, employment of disabled, and the progressive gay in the workforce. These measures would improve diversity with potential improvement in the financial performance. Managers should also intensify the improvement of the employee relations through positive relation with the workers union, setting of rules governing layoff and workforce reduction, increasing cash profit sharing, encouraging workers involvement, providing appreciable retirement benefits to employees, and paying increasing attention to health and safety of the work environment. These measures should help to positively induce financial performance.

The community and product social factors were found to be negatively correlated with the financial performance. Because the negative correlation of these factors with financial performance suggests that they are capable of destroying value, it is recommended that corporate managers downplay or restrict investment in them.

Recommendations for Banking Industry Regulators

Banking is a highly regulated industry. The result of this research showed that regulators equally need to play their due oversight roles on the banks to ensure proper management and strong corporate governance of the institutions. The insinuated presence of managerial opportunism and the increased cost of capital associated with the hypothesized CSR factors suggest evidence of weak governance in the hypothesized banks. If the regulators could intensify oversight on the banks, the observed weakness in governance would be corrected, and investor confidence would be increased.

Recommendations for Public Policy

Ordinarily, corporate social responsibility of business firms is good for the society since it improves the wellbeing of the stakeholders. However, to depend on the business sector to champion the supply of these public goods might not guarantee adequate supply because there is tendency that the business sector would selectively embark on the aspects of the CSR that had potential to improve their bottom line. For instance, banks are not likely to intensify efforts in improving their social conduct in the areas of community and product since these were found to be negatively correlated with the bottom line. Griffin and Prakash (2014) have earlier contended that business sector and government must effectively participate in CSR if social conduct is to be sustainable. Government therefore needs to encourage the business sector to support the provision of public goods. Like Cajias et al. (2014), who called for enactment and enforcement of regulations that provide the enabling environment for the business sector to display a

high sense of social conduct, I hereby call on the government to provide tax incentives and other stimulating measures to the private sector to encourage them to improve their CSR activities, particularly with respect to those that are negatively associated with business financial performance.

Recommendations for Further Research

As noted in the chapter 2 literature review, research studies on CSR and financial performance that focused on the US banking sector are rare. This was one of the gaps that led to this study. Many earlier studies examined the impact of CSR factors on the financial performance of multiple industries, making it difficult to address the peculiarities of each industry or each stakeholder group. The results of the current study are unique to the banking industry. It was found that CSR factors had no significant effect on the financial performance of the banks and that the shareholders penalized the banks for this in the form of higher cost of capital. However, before final position can be taken on these findings, further research is recommended to expand the scope of the study. The period of 5 years covered in this study is hardly enough to reach a robust conclusion. Apart from expanding the scope of the research, other future researchers might extend the study by performing qualitative research to explore the exact meanings the investors attach to the business CSR activities. This would provide opportunity to triangulate the research with potential to yield a more reliable and more complete finding. Finally, future researchers may want to replicate the study in the banking sector of other countries, using

multidimensional ratings to measure the CSR as was done in this study or using some other forms of methodology to measure the independent variable.

Implications for Social Change

Apart from contributing to the body of knowledge, this study also has potential to create positive social change for a number of stakeholders. Articulated below are the potential impacts for positive social change for the decision makers in the banking industry, the shareholders/investors, the banking industry regulators, and the academic community.

Positive Social Change for Decision Makers in the Banks

This study has demonstrated that decision makers in banks need to discriminate among the various CSR factors because they impact on the financial performance measures in different ways. The study showed that among the hypothesized CSR factors only diversity and employee relations are positively related to the financial performance. This information would guide corporate and business strategy by ensuring that investment in diversity and employee relations would ultimately help to build and sustain competitive advantage with improved bottom line. Also as part of corporate strategy, decision makers are now better informed of the effect that investment in community and product related social performance could possibly have on the ability to compete better and make more profit. These factors were found to be negatively related to financial performance, so the decision makers would, without government incentives, need to

ensure that investment in such factors is appropriately restricted to improve overall financial performance.

Secondly, the decision makers including the boards of directors are now better informed that investors could misinterpret well intentioned corporate actions, like investment in social activities that could help to foster relationship with the stakeholders and improve the overall business performance. When such happens, irrational investment decisions distorted by bias and information asymmetry could lead to increase in the cost of raising finance by the company as observed in this study. This could happen if the shareholders were not adequately carried along, and were not clear about the rationale for embarking on such social activities. I have recommended that the shareholders be well informed of the corporate strategy relating to social responsibility and that the investors be encouraged to participate in corporate activities, particularly those relating to the engagement in CSR.

The decision makers in the banks including directors were also informed of the significant influence of corporate governance on the financial performance and the possible reaction of the shareholders to the intensity of this social factor in the overall conduct of the business. The result of the analysis of the research questions showed that corporate governance accounted for the observed effect of the CSR factors on financial performance. The fact that the shareholders perceived this positive influence on financial performance as a risk is a wakeup call for the banks' decision makers, particularly those with oversight responsibilities, to increase the level of their scrutiny of governance related activities in the banks and improve transparency.

Positive Social Change for Banking Regulators and Government

The results of this study showed that the Jiao's (2010) contention that engagement in corporate social responsibility could signify the presence of managerial opportunism holds true in the banking industry. Even though the analysis of the research questions showed some effect of corporate social responsibility on the financial performance, the shareholders perceived the social activities as an avenue for managerial opportunism with the implication of increased cost of capital. The social change implication is that the regulators are now aware of the need to increase their scrutiny of the CSR activities of the banks to check abuse such as managerial opportunism. Government policy makers are also now aware of the need to implement measures such as taxation to encourage the business sector to undertake social activities that can help to improve the overall wellbeing of the citizenry. Such social activities are those to which banks ordinarily would not commit significant resources such as community and product factors because of their negative relationship with the financial performance measures.

Positive Social Change for the Academic Community

The outcome of this study helps to update the literature, not only because of the current data it provided, but also in terms of the gaps that were addressed. As stated in the chapter 1, researchers rarely examined the effects of the individual CSR factors on the financial performance, particularly the cost of capital in the banking sector of the United States. This study helped to bridge this gap, by providing insight into how the various dimensions of social responsibility including community, governance, diversity,

employee relations, and product could possible affect the accounting returns and the cost of capital of the large banks in the United States. It was revealed that increased CSR activities in banks, particularly in the areas relating to community, governance, and product could lead to higher cost of raising finance, while increased CSR activities in the areas relating to diversity and employee relations could help to reduce cost of capital and they could also help to improve accounting returns simultaneously.

Conclusion

In this study, I found mixed effects of corporate social conduct of banks on their financial performance. The results varied with the measures of the financial performance adopted, whether accounting returns or market determined cost of capital. For the accounting returns, no significant effect of the CSR was observed on the financial performance. This result supported the irrelevance theorem of the neoclassical economic theory by Friedman (1970) and a few empirical researchers who observed no significant effect (Grove, et al. 2011; Montiel & Delgado-Ceballos, 2014; Orlitzky, 2013; Soana, 2011). With this result, there is a basis for the skepticism expressed by the world business leaders that it is inappropriate for the business sector to champion the corporate social responsibility because no clear link between the CSR and business value has been established (UN Global Compact & Accenture, 2013).

For the cost of capital as a measure of financial performance, a significant effect of CSR was observed on cost of capital, but in a direction that differed from the expected, based on the patterns in the empirical literature. The a priori assumption was that CSR

activities should help to reduce cost of finance, but this study showed a positive effect of CSR activities on the Fama-French cost of capital. Because the Fama-French cost of capital used was market determined, the results implied that the shareholders perceived the intensified CSR activities as risky and therefore required additional premium for compensation, leading to higher cost of capital. Jiao (2010) had earlier attributed this risk to the possible presence of managerial opportunism.

The overall conclusion is that the controversy of whether social conduct of a business firm creates or destroys value is far from being resolved. The inconsistent results of such studies constitute an opportunity to further explore this topic in varying contexts and scope.

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Appendix A: Analysis of the Recent Studies on Impact of CSR on FP

S/n	Authors	Independent Variable	Dependent Variable	Industry	Context	Scope	Relation-ship Found
1	Adeyanju (2012)	Sponsorship and Donations	Stakeholder Ratings of the banks	Banking	Nigeria	2012	Positive
2	Ganescu, M. C. (2012)	1) Business model, Organizational culture, and TQM 2) Questionnaire	CSPt	Automative	Europe	2010	Positive
3	Jo & Harjoto (2011)	KLD Aggregated CSR Rating	Tobin's q	Multiple	Multiple	1993-2004	Positive
4	Tafti, Hosseini, & Emami (2012)	Workplace policy, Environmental policy, Marketplace policy, Community Policy - Questionnaire	Company value	Banking	Iran	2011	Positive
5	Wu & Shen (2013)	1) EIRIS Aggregated CSR Rating 2) EIRIS Aggregated CSR Rating	ROA, ROE, Net II, Non-II NPL	Banking	Multiple (22 countries)	2003-2009	Mixed Positive for bank profits – ROA, ROE, Net-II & Non-II Negative for NPL
6	Deng, Kang & Low (2013)	KLD CSR Aggregated Rating for 7 dimensions	Excess returns	Multiple, with control	US	1992-2007	Positive
7	Mustafa, Othman, & Perumal (2012)	FTSE4Good Index Questionnaire survey based on Carroll(1991) - ethics, legal, economic, & philanthropic.	Company performance	Multiple, no control	Malaysia	N/A	Positive

S/n	Authors	Independent Variable	Dependent Variable	Industry	Context	Scope	Relation-ship Found
8	Becchetti, Ciciretti, Hassan & Kobeissi (2012)	KLD CSR Aggregated Rating	Excess share returns	Multiple, no control	Multiple countries	1990-2004	Positive
9	Sun & Cui (2014)	CSR, firm capability, environmental dynamism, & complexity. Fortune Magazine's AMAC (America's Most Admired Companies) Ratings	Default risk	Multiple, 303firms	US	2008-2010	Positive – higher CSR lower risk
10	Servaes & Tamayo (2013)	KLD CSR Aggregated ratings	Tobin's q, ROA, ROE, ROS	Multiple, no control	US	1991-2005	Positive
11	Ghoul, Guedhami, Kwok, & Mishra (2011)	KLD CSR Aggregated ratings	Cost of equity	Multiple with control	US	1992-2007	Positive
12	Weshah, Dahiyat, Awwad & Hajjat (2012)	Donation/Interest Revenue Firm Size =Total Assets Risk = Total Liab/TA Advert Intensity = AdvertExpnd/Interest Revenue	ROA (Net income before tax/Total Asset Value	Banking	Jordan	2011	Positive
13	Goss & Roberts (2011)	KLD Aggregated CSR	Cost of bank loans of firms (i.e. loan spreads)	Multiple	US	1991-2006	Positive
14	Nandy & Lodh (2012)	KLD Composite CSR Ratings for US firms (composite score)	Loan contract term - Ln_Spreads, Log Deal size, LogMaturity, Lenders, Collaterals, Covenant General, Covenant Financial	Multiple industries with control	US	1991-2006	Positive
15	Torres, Bijmolt, Tribo & Verhoef (2012)	Sustainalytics Global Profile (SGP) database (formerly SiRi Pro) Aggregated but weighted average scores of the ratings.	Brand Equity	Multiple industries with control	Multiple	2002-2008	Positive

S/n	Authors	Independent Variable	Dependent Variable	Industry	Context	Scope	Relation-ship Found
16	Chen & Wang (2011)	Questionnaire Survey	ROA, ROS, Growth rate of sales (GRS)	Multiple industries with control	China	2007-2008	Positive
17	Hajiha & Sarfaraz (2013)	KLD Aggregated CSR Index Control variable: size, BTM, Leverage, Beta	WACC	Multiple without control	Tehran Stock Exchange, Iran	2008 – 2012	Positive
18	Gregory, Tharyan, & Whittaker, (2014)	KLD Aggregated CSR Index Control Variable: Size, capital expenditure.	Firm value and profitability, Cash Flow, & Cost of Capital	Multiple with control	US	1992-2009	Positive
19	Rahmawati & Dianita (2011)	Content analysis of disclosure	ROA	Multiple no control	Indonesia	2006-2008	Negative
20	Lioui & Sharma (2012)	KLD CSR Environmental Rating	ROA & Tobin's q	Multiple with control	US	1993-2007	Negative
21	Soana (2011)	AEI aggregate CSR ratings	ROA, ROE, CIR, Mkt to book ratio, price to book value & P/E Ratio adjusted	Banking	Italy	2005	Neutral
22	Moura-Leite, Padgett, & Galan (2014)	KLD Aggregated CSR Ratings Control variables: Size, risk, advertising intensity	ROA and Tobin's q	Multiple with control, 809 firms	US	2003-2007	Positive
23	Parsa, Lord, Putrevu & Kreeger (2015)	Demographics, involvement, attitudes, & patronage intent as measures measure Questionnaire	Willingness to pay	Retail & Consumer services	US	2014	Positive
24	Cajias, Fuerst, Bienert (2014)	KLD Aggregated CSR ratings Control variable: Market value, leverage, market to book, growth in returns.	Cost of capital	Multiple, with control, 2300 listed firms	US	2003-2010	Positive

S/n	Authors	Independent Variable	Dependent Variable	Industry	Context	Scope	Relation-ship Found
25	Baird, Geylani & Roberts (2012)	KLD Component CSR rating for each industry.	Share value	Multiple, no control	US	2001-2008	Mixed Relationship varies among industries and with the dimensions of CSR tested.
26	Busch & Hoffmann (2011)	Firm's carbon intensity (Total GHG emissions (in tons) and a firm's sales (in US$)). CSR Questionnaires focused on carbon performance Sustainability ratings by Sustainable Asset Management (Swiss-based)	ROA, ROE, & Tobin's q	Carbon- and energy-intense industries	Multiple	2007	Mixed Results depend on how carbon emission is used.
27	Inoue & Lee (2011)	KLD Aggregated CSR ratings	ROA & Tobin's q	Tourism related industries - Airline, Hotel, Restaurant, & Casino.	US	1991-2007	Mixed Each dimension Had a differential effect on profitability and that such financial impacts varied across the four industries.
28	Wang, Wu & Sun (2015)	On-time performance, accident rate, flight frequency, growth of employee revenue and employees revenue	CSP	Airline	China	2007 -2012	Positive
29	Becchetti, Ciciretti, & Giovannelli (2013)	KLD CSR scores	1) Absolute Forecast Error on EPS 2) Standard Deviation of Absolute Forecast Error on EPS	Multiple, no control	US	1992-2011	Mixed Range between positive and negative effects.

S/n	Authors	Independent Variable	Dependent Variable	Industry	Context	Scope	Relation-ship Found
30	Saeidi, Sofian, Saeidi, Saeidi, & Saeidi, (2015)	CSR comprising ethical, economic, discretionary, & legal Control variable: Firm size, age, and sales revenue Questionnaire was used due to limitation of KLD.	ROE, ROA, ROS, ROI, Net profit margin,	Manufacturing and consumer product sector	Iran	2014	Positive

Appendix B: List of Sampled Banks

S/n	Ticker	Industry	Name
1	BOKF	Credit Services	BOK Financial Corp ET AL
2	CBF	Credit Services	Capital Bank Financial Corp.
3	COF	Credit Services	Capital One Financial Corp
4	CSH	Credit Services	Cash America International Inc
5	FCF	Credit Services	First Commonwealth Financial Corp
6	FCFS	Credit Services	First Cash Financial Services Inc
7	MBTF	Credit Services	MBT Financial Corp
8	MGI	Credit Services	MoneyGram International Inc
9	NPBC	Credit Services	National Penn Bancshares Inc
10	EWBC	Foreign Money Center Banks	East West Bancorp Inc
11	FBNC	Foreign Regional Banks	First Bancorp
12	FBP	Foreign Regional Banks	First Bancorp
13	ABCW	Money Center Banks	Anchor Bancorp Wisconsin Inc
14	BAC	Money Center Banks	Bank Of America Corp
15	CBU	Money Center Banks	Community Bank System, Inc.
16	HOMB	Money Center Banks	Home Bancshares Inc
17	OFG	Money Center Banks	OFG Bancorp
18	ABCB	Regional - Mid-Atlantic Banks	Ameris Bancorp
19	CCBG	Regional - Mid-Atlantic Banks	Capital City Bank Group Inc
20	CFNL	Regional - Mid-Atlantic Banks	Cardinal Financial Corp
21	FCNCA	Regional - Mid-Atlantic Banks	First Citizens Bancshares Inc
22	FNFG	Regional - Mid-Atlantic Banks	First Niagara Financial Group Inc
23	CBSH	Regional - Midwest Banks	Commerce Bancshares Inc
24	CHFC	Regional - Midwest Banks	Chemical Financial Corp
25	FFBC	Regional - Midwest Banks	First Financial Bancorp
26	FITB	Regional - Midwest Banks	Fifth Third Bancorp
27	FMBI	Regional - Midwest Banks	First Midwest Bancorp Inc
28	HBAN	Regional - Midwest Banks	Huntington Bancshares Inc
29	LKFN	Regional - Midwest Banks	Lakeland Financial Corp
30	MBFI	Regional - Midwest Banks	MB Financial Inc
31	MBWM	Regional - Midwest Banks	Mercantile Bank Corp
32	MCBC	Regional - Midwest Banks	Macatawa Bank Corp
33	MSFG	Regional - Midwest Banks	Mainsource Financial Group
34	ONB	Regional - Midwest Banks	Old National Bancorp
35	OSBC	Regional - Midwest Banks	Old Second Bancorp Inc
36	AROW	Regional - Northeast Banks	Arrow Financial Corp
37	FULT	Regional - Northeast Banks	Fulton Financial Corp

38	LBAI	Regional - Northeast Banks	Lakeland Bancorp Inc
39	MTB	Regional - Northeast Banks	M&T Bank Corp
40	NBTB	Regional - Northeast Banks	NBT Bancorp Inc
41	BOH	Regional - Pacific Banks	Bank Of Hawaii Corp
42	BSRR	Regional - Pacific Banks	Sierra Bancorp
43	CACB	Regional - Pacific Banks	Cascade Bancorp
44	CATY	Regional - Pacific Banks	Cathay General Bancorp
45	CPF	Regional - Pacific Banks	Central Pacific Financial Corp
46	CVBF	Regional - Pacific Banks	CVB Financial Corp
47	GBCI	Regional - Pacific Banks	Glacier Bancorp Inc
48	HAFC	Regional - Pacific Banks	Hanmi Financial Corp
49	BXS	Regional - Southeast Banks	Bancorpsouth Inc
50	CSFL	Regional - Southeast Banks	CenterState Banks, Inc.
51	CTBI	Regional - Southeast Banks	Community Trust Bancorp Inc
52	FFKT	Regional - Southeast Banks	Farmers Capital Bank Corp
53	IBKC	Regional - Southeast Banks	Iberiabank Corp
54	BANF	Regional - Southwest Banks	Bancfirst Corp
55	CFR	Regional - Southwest Banks	Cullen/Frost Bankers, Inc.
56	FFIN	Regional - Southwest Banks	First Financial Bankshares Inc
57	GSBC	Regional - Southwest Banks	Great Southern Bancorp Inc
58	HTLF	Regional - Southwest Banks	Heartland Financial USA Inc
59	IBOC	Regional - Southwest Banks	International Bancshares Corp
60	OKSB	Regional - Southwest Banks	Southwest Bancorp Inc
61	AF	Savings & Loans	Astoria Financial Corp
62	BFIN	Savings & Loans	Bank Financial CORP
63	BHLB	Savings & Loans	Berkshire Hills Bancorp Inc
64	BKMU	Savings & Loans	Bank Mutual Corp
65	BRKL	Savings & Loans	Brookline Bancorp Inc
66	CFFN	Savings & Loans	Capitol Federal Financial Inc
67	DCOM	Savings & Loans	Dime Community Bancshares Inc
68	FBC	Savings & Loans	Flagstar Bancorp Inc
69	FFIC	Savings & Loans	Flushing Financial Corp
70	KRNY	Savings & Loans	Kearny Financial Corp.
71	OCFC	Savings & Loans	Oceanfirst Financial Corp

Appendix C: Fama-French three-Factor Model Cost of Capital

Name	Beta	R_{im}	R_f	R_s	R_v	Cost of Capital
Ameris Bancorp	0.8235	0.0561	0.0221	0.0024	0.0277	10.83%
Anchor Bancorp Wisconsin Inc	2.6180	0.1783	0.0221	0.0024	0.0277	19.05%

Astoria Financial Corp	0.4625	0.0315	0.0221	0.0024	0.0277	8.37%
Arrow Financial Corp	0.5763	0.0392	0.0221	0.0024	0.0277	9.14%
Bank of America Corp	0.8988	0.0612	0.0221	0.0024	0.0277	11.34%
Bancfirst Corp	0.3145	0.0214	0.0221	0.0024	0.0277	7.36%
BankFinancial CORP	0.3796	0.0258	0.0221	0.0024	0.0277	7.80%
Berkshire Hills Bancorp Inc	0.5992	0.0408	0.0221	0.0024	0.0277	9.30%
Bank Mutual Corp	0.5023	0.0342	0.0221	0.0024	0.0277	8.64%
Bank Of Hawaii Corp	0.9479	0.0645	0.0221	0.0024	0.0277	11.67%
Bok Financial Corp ET AL	0.5959	0.0406	0.0221	0.0024	0.0277	9.28%
Brookline Bancorp Inc	0.9849	0.0671	0.0221	0.0024	0.0277	11.93%
Sierra Bancorp	0.6954	0.0474	0.0221	0.0024	0.0277	9.95%
Bancorpsouth Inc	1.1407	0.0777	0.0221	0.0024	0.0277	12.99%
Cascade Bancorp	0.0698	0.0048	0.0221	0.0024	0.0277	5.69%
Cathay General Bancorp	1.0601	0.0722	0.0221	0.0024	0.0277	12.44%
Capital Bank Financial Corp.	0.2155	0.0147	0.0221	0.0024	0.0277	6.69%
Commerce Bancshares Inc	0.6840	0.0466	0.0221	0.0024	0.0277	9.88%
Community Bank System, Inc.	0.9619	0.0655	0.0221	0.0024	0.0277	11.77%
Capital City Bank Group Inc	0.4407	0.0300	0.0221	0.0024	0.0277	8.22%
Capitol Federal Financial Inc	0.4413	0.0301	0.0221	0.0024	0.0277	8.22%
Cardinal Financial Corp	0.6964	0.0474	0.0221	0.0024	0.0277	9.96%
Cullen/Frost Bankers, Inc.	0.9341	0.0636	0.0221	0.0024	0.0277	11.58%
Chemical Financial Corp	0.8909	0.0607	0.0221	0.0024	0.0277	11.29%
Capital One Financial Corp	1.1309	0.0770	0.0221	0.0024	0.0277	12.92%
Central Pacific Financial Corp	1.1200	0.0763	0.0221	0.0024	0.0277	12.85%
CenterState Banks, Inc.	0.2959	0.0202	0.0221	0.0024	0.0277	7.23%
Cash America International Inc	1.0075	0.0686	0.0221	0.0024	0.0277	12.08%
Community Trust Bancorp Inc	0.5940	0.0404	0.0221	0.0024	0.0277	9.26%
CVB Financial Corp	1.2388	0.0844	0.0221	0.0024	0.0277	13.65%
Dime Community Bancshares Inc	0.6444	0.0439	0.0221	0.0024	0.0277	9.61%
East West Bancorp Inc	1.2177	0.0829	0.0221	0.0024	0.0277	13.51%
Flagstar Bancorp Inc	0.6590	0.0449	0.0221	0.0024	0.0277	9.71%
First Bancorp	1.0624	0.0723	0.0221	0.0024	0.0277	12.45%
First Bancorp	1.8827	0.1282	0.0221	0.0024	0.0277	18.04%
First Commonwealth Financial Corp	0.8157	0.0555	0.0221	0.0024	0.0277	10.77%
First Cash Financial Services Inc	0.9025	0.0615	0.0221	0.0024	0.0277	11.36%
First Citizens Bancshares Inc	1.1109	0.0756	0.0221	0.0024	0.0277	12.78%
First Financial Bancorp	0.8529	0.0581	0.0221	0.0024	0.0277	11.03%
Flushing Financial Corp	0.9169	0.0624	0.0221	0.0024	0.0277	11.46%
First Financial Bankshares Inc	1.0712	0.0729	0.0221	0.0024	0.0277	12.51%
Farmers Capital Bank Corp	1.0235	0.0697	0.0221	0.0024	0.0277	12.19%

Fifth Third Bancorp	0.9850	0.0671	0.0221	0.0024	0.0277	11.93%
First Midwest Bancorp Inc	0.9620	0.0655	0.0221	0.0024	0.0277	11.77%
First Niagara Financial Group Inc	0.7574	0.0516	0.0221	0.0024	0.0277	10.38%
Fulton Financial Corp	1.1722	0.0798	0.0221	0.0024	0.0277	13.20%
Glacier Bancorp Inc	1.2867	0.0876	0.0221	0.0024	0.0277	13.98%
Great Southern Bancorp Inc	0.8746	0.0596	0.0221	0.0024	0.0277	11.17%
Hanmi Financial Corp	0.3301	0.0225	0.0221	0.0024	0.0277	7.47%
Huntington Bancshares Inc	0.9441	0.0643	0.0221	0.0024	0.0277	11.65%
Home Bancshares Inc	1.1073	0.0754	0.0221	0.0024	0.0277	12.76%
Heartland Financial Usa Inc	0.4085	0.0278	0.0221	0.0024	0.0277	8.00%
Iberiabank Corp	1.1090	0.0755	0.0221	0.0024	0.0277	12.77%
International Bancshares Corp	1.2975	0.0884	0.0221	0.0024	0.0277	14.05%
Kearny Financial Corp.	0.5347	0.0364	0.0221	0.0024	0.0277	8.86%
Lakeland Bancorp Inc	0.6125	0.0417	0.0221	0.0024	0.0277	9.39%
Lakeland Financial Corp	0.6176	0.0421	0.0221	0.0024	0.0277	9.42%
MB Financial Inc	1.0761	0.0733	0.0221	0.0024	0.0277	12.55%
MBT Financial Corp	0.3996	0.0272	0.0221	0.0024	0.0277	7.94%
Mercantile Bank Corp	0.4717	0.0321	0.0221	0.0024	0.0277	8.43%
Macatawa Bank Corp	1.3435	0.0915	0.0221	0.0024	0.0277	14.37%
Moneygram International Inc	1.5422	0.1050	0.0221	0.0024	0.0277	15.72%
Mainsource Financial Group	0.8392	0.0571	0.0221	0.0024	0.0277	10.93%
M&T Bank Corp	0.5974	0.0407	0.0221	0.0024	0.0277	9.29%
NBT Bancorp Inc	0.7537	0.0513	0.0221	0.0024	0.0277	10.35%
National Penn Bancshares Inc	0.5507	0.0375	0.0221	0.0024	0.0277	8.97%
Oceanfirst Financial Corp	0.3546	0.0241	0.0221	0.0024	0.0277	7.63%
OFG Bancorp	0.9355	0.0637	0.0221	0.0024	0.0277	11.59%
Southwest Bancorp Inc	0.8399	0.0572	0.0221	0.0024	0.0277	10.94%
Old National Bancorp	0.8181	0.0557	0.0221	0.0024	0.0277	10.79%
Old Second Bancorp Inc	1.0486	0.0714	0.0221	0.0024	0.0277	12.36%

Appendix D: CSR Scores of Sampled Banks

S/n	Ticker	Bank Name	CSR Factor Scores					
			Community	Governance	Diversity	Employee Relation	Product	Aggregate
1	ABCB	Ameris Bancorp	4	6	4	5	5	24
2	ABCW	Anchor Bancorp Wisconsin Inc	4	6	5	5	5	25
3	AF	Astoria Financial Corp	4	6	5	5	4	24
4	AROW	Arrow Financial Corp	6	4	4	4	5	23
5	BAC	Bank of America Corp	4	6	4	5	5	24
6	BANF	Bancfirst Corp	5	5	6	4	5	25
7	BFIN	BankFinancial CORP	5	6	4	5	5	25
8	BHLB	Berkshire Hills Bancorp Inc	7	3	7	5	2	24
9	BKMU	Bank Mutual Corp	6	5	8	6	5	30
10	BOH	Bank of Hawaii Corp	5	6	6	5	5	27
11	BOKF	BOK Financial Corp ET AL	5	6	5	5	5	26
12	BRKL	Brookline Bancorp Inc	5	6	5	4	5	25
13	BSRR	Sierra Bancorp	6	6	4	5	5	26
14	BXS	Bancorpsouth Inc	6	4	5	4	5	24
15	CACB	Cascade Bancorp	6	3	7	6	5	27
16	CATY	Cathay General Bancorp	4	6	5	4	5	24
17	CBF	Capital Bank Financial Corp.	5	6	5	5	5	26
18	CBSH	Commerce Bancshares Inc	5	5	6	5	5	26
19	CBU	Community Bank System, Inc.	4	6	4	5	5	24
20	CCBG	Capital City Bank Group Inc	6	5	7	5	5	28
21	CFFN	Capitol Federal Financial Inc	5	5	5	5	5	25
22	CFNL	Cardinal Financial Corp	5	6	4	5	5	25

23	CFR	Cullen/Frost Bankers, Inc.	6	5	4	5	5	25
24	CHFC	Chemical Financial Corp	5	6	6	5	5	27
25	COF	Capital One Financial Corp	4	6	5	5	5	25
26	CPF	Central Pacific Financial Corp	6	5	5	5	5	26
27	CSFL	CenterState Banks, Inc.	5	6	6	5	5	27
28	CSH	Cash America International Inc	4	6	5	5	5	25
29	CTBI	Community Trust Bancorp Inc	6	5	4	5	5	25
30	CVBF	CVB Financial Corp	6	5	4	5	5	25
31	DCOM	Dime Community Bancshares Inc	6	4	8	5	5	28
32	EWBC	East West Bancorp Inc	5	6	5	5	5	26
33	FBC	Flagstar Bancorp Inc	5	5	5	5	5	25
34	FBNC	First Bancorp	5	6	6	4	5	26
35	FBP	First Bancorp	5	5	5	4	5	24
36	FCF	First Commonwealth Financial Corp	5	6	5	4	4	24
37	FCFS	First Cash Financial Services Inc	6	6	5	5	5	27
38	FCNCA	First Citizens Bancshares Inc	5	6	5	5	5	26
39	FFBC	First Financial Bancorp	5	4	5	4	5	23
40	FFIC	Flushing Financial Corp	4	6	4	5	5	24
41	FFIN	First Financial Bankshares Inc	6	5	4	4	5	24
42	FFKT	Farmers Capital Bank Corp	4	6	5	4	5	24
43	FITB	Fifth Third Bancorp	4	5	6	5	5	25
44	FMBI	First Midwest Bancorp Inc	6	4	6	5	5	26
45	FNFG	First Niagara Financial Group Inc	5	6	5	4	5	25
46	FULT	Fulton Financial Corp	6	6	4	6	5	27
47	GBCI	Glacier Bancorp Inc	6	6	5	5	5	27
48	GSBC	Great Southern Bancorp Inc	6	5	7	5	5	28

49	HAFC	Hanmi Financial Corp	8	6	4	5	5	28
50	HBAN	Huntington Bancshares Inc	5	5	4	5	5	24
51	HOMB	Home Bancshares Inc	4	5	7	5	5	26
52	HTLF	Heartland Financial USA Inc	4	5	6	4	5	24
53	IBKC	Iberiabank Corp	5	6	8	4	5	28
54	IBOC	International Bancshares Corp	5	6	4	5	5	25
55	KRNY	Kearny Financial Corp.	6	5	5	5	5	26
56	LBAI	Lakeland Bancorp Inc	4	6	5	5	5	25
57	LKFN	Lakeland Financial Corp	5	6	6	4	5	26
58	MBFI	MB Financial Inc	5	6	4	5	5	25
59	MBTF	MBT Financial Corp	4	6	4	5	5	24
60	MBWM	Mercantile Bank Corp	5	6	6	5	5	27
61	MCBC	Macatawa Bank Corp	6	6	5	5	5	27
62	MGI	MoneyGram International Inc	5	6	5	5	5	26
63	MSFG	Mainsource Financial Group	5	5	6	4	5	25
64	MTB	M&T Bank Corp	5	6	6	5	5	27
65	NBTB	NBT Bancorp Inc	5	5	5	5	5	25
66	NPBC	National Penn Bancshares Inc	4	5	5	5	5	24
67	OCFC	Oceanfirst Financial Corp	5	5	5	4	5	24
68	OFG	OFG Bancorp	5	5	5	4	5	24
69	OKSB	Southwest Bancorp Inc	4	5	7	5	5	26
70	ONB	Old National Bancorp	5	6	4	5	5	25
71	OSBC	Old Second Bancorp Inc	4	6	5	6	5	26
		Total Score	361	386	370	341	350	1808