CORPORATE SOCIAL RESPONSIBILITY, IMAGE, SIZE AND PERFORMANCE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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D80/97258/2015

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

JULY, 2022

DECLARATION

I hereby declare that this thesis is my original work and has not been submitted to any other University for the award of any degree.

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ACKNOWLEDGEMENT

I would like to thank almighty God for his abundant grace during my academic journey.

My heartfelt gratitude and appreciation goes to my supervisors: Prof. Cyrus Iraya, Prof. Mirie Mwangi and Dr. Peter Muriu whose able supervision and guidance was integral to the successful completion of my doctoral program.

I would like to pay my grandest homage to all persons who in one way or the other significantly contributed to the eventual completion of my doctoral thesis.

DEDICATION

I dedicate this thesis to Millicent, Shamra and Susana for their inspiration and unequivocal support.

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LIST OF ABBREVIATIONS

ANOVA - Analysis of Variance
BP - British Petroleum
CDS - Central Depository System
CESRA - Center for Social Responsibility and Accountability in Kenya
CMA - Capital Markets Authority
CSR - Corporate Social Responsibility
DJS - Dow Jones Sustainability
ESG - Environmental, Social & governance
FP - Firm Performance
FPM - Financial Performance Measures
GLS - General Least Squares
GMM - Generalized Method of Moments
GRI - Global Reporting Initiative
KCB - Kenya Commercial Bank
KEJI - Korea Economic Justice Institute
KLD - Kinder, Lydenberg, and Domini's
MBR - Market to Book Ratio
NFPM - Non-Financial Performance Measures
OLS - Ordinary Least Squares
PER - Price Earnings Ratio
PLS - Partial Least Squares
PSCE - Panel-Correction Standard Error
RBVT - Resource Based View Theory
REITS - Real Estate Investment Trusts
ROA - Return on Assets
ROCE - Return on Capital Employed
ROE - Return on Equity
SEM - Structural Equation Model
SME - Small and Medium Enterprises
US - United States
VIF - Variance Inflation Factor
VIRN - Valuable Inimitable Rare and Non-Substitutable

ABSTRACT

The relationship between corporate social responsibility (CSR) and firm performance (FP) has attracted attention of scholars and policy makers. There is no convergence in the existing literature as to whether CSR directly leads to improved FP or it enhances corporate image which eventually translates into better FP. Moreover, it is not clear whether CSR-FP linkage is contingent upon the size of the firm. The main objective of this study was to investigate the relationship among CSR, corporate image, firm size and performance of firms listed at the Nairobi securities exchange (NSE). This study is anchored on legitimacy theory, stakeholder theory, resource based theory and signaling theory. Regarding philosophical orientation, the study is grounded on positivist research paradigm. Descriptive cross-sectional research design was adopted where a census survey of 61 firms listed at the NSE was undertaken. The data gathered was analyzed using descriptive and inferential statistics. Descriptive statistics involved computation of the mean, standard deviation, minimum and maximum values. Inferential statistics entailed the application of regression analysis as the principal estimation technique. From the hypotheses tested, numerous findings were reported. First, there was a positive significant linkage between CSR and FP. Secondly, corporate image fully mediated the relationship between CSR and FP. Thirdly, firm size moderated CSR-FP relationship and synergistic interaction was reported. Lastly, there was a significant joint effect among CSR, image size and FP. The study made significant contribution to theory development, policy formulation and management practice. The findings complemented the key propositions of stakeholder theory, resource based view, legitimacy theory as well as signaling theory. On the policy implication, policy prescriptions were made recommendations on development of CSR performance indices as well as image indices tailored for the local context as well as providing a framework for mandatory CSR activities by the corporate bodies based on Global Reporting Initiative (GRI). Concerning management practice, implementation of better CSR practices helps in fostering good relationships with key stakeholders which improves corporate image which in turn translates into better FP. The study had numerous limitations such as, the study being carried out in a single country context hence inhibiting generalizability of findings; study being cross-sectional in nature hence failing to consider what happens after the snapshot and finally lack of universally accepted metrics for operationalizing CSR, corporate image and FP. Finally, the study made suggestions for areas for further study such as testing the bi-directional CSR-FP relationship; using different metrics to operationalize the study variables; using cross-country samples in empirical investigations; using distinct mediating and moderating variables; and finally using longitudinal datasets for analogous studies.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Sparked by the claim that firms have vital social obligations that extend beyond profit making, corporate social responsibility (CSR) both as a concept and practice has progressively gained overwhelming traction as an important corporate strategy. Firm performance (FP) remains to be the key factor that determines the survival of many firms in today's turbulent and dynamic corporate environment. To improve FP, firms have heightened their CSR programs by integrating philanthropic, economic, ethical and legal responsibilities into corporate decision making (Bissoon, 2018). A central argument in favour of CSR suggests that investing socially differentiate firms from their rivals by generating favourable corporate image capital. In return, positive corporate image provide firms with competitive advantage premium which leads to superior FP (Park, 2017).

The ability of a firm to engage in CSR schemes largely depends on its size. Large firms can easily afford increased CSR obligations owing to greater resource availability (slack resources) which translates into improved FP (Deng & Long, 2019). Conversely, small firms undertake minimal CSR programs since they are constrained by limited resources and this negatively affect their FP. While vast of theoretical literature predicts a positive CSR-FP linkage, critics of CSR however argue that it is a costly endeavor with implications on profitability (Tuker, 2018). Friedman (1970)'s seminal work supports this view by maintaining that the sole responsibility of any firm is to maximize shareholders' wealth. Despite these dominant views, the nexus between CSR and FP is ambiguous and therefore remains unresolved.

The theoretical principles underlying the link between CSR and FP are underpinned by legitimacy theory, stakeholder theory, resource based view (RBV) and signaling theory. The key theory underpinning this study is the legitimacy theory proposed by Dowling and Pfeffer (1975) which posits that an implicit social contract exists between the firm and the society. In order to receive social validation, firm's operations must be perceived to be within the acceptable bounds and norms of the society. Likewise, community support is vital for the growth, survival and image of firms. Stakeholder theory propounded by Freeman (1984) suggests that firms have a social obligation to a large, heterogeneous and amalgamated set of stakeholders having power, legitimate expectations and urgent claims over the firm resources. RBV advanced by Penrose (1959) underscores the need for firms to exploit their unique internal resources in order to gain competitive advantage. The signaling theory pioneered by Spence (1973) suggests that one party can use observable attributes to display its unobservable characteristics.

This study is motivated by the growing and highly differentiated CSR activities among the listed firms. Firms are facing increased stakeholder pressure to participate more in CSR activities. Does it pay to be socially good? Empirical literature provides inconclusive and conflicting findings on CSR-FP relationship ranging from positive, neutral to negative findings (Chtourou & Triki, 2017). What explains these contradictory findings? Pradhan (2016) attributes inconsistencies to poor theoretical foundations, model misspecification, omitted or unidentified control variables, measurement issues, contextual variations, lack of clear direction of causality and sampling limitations.

Within the context of Nairobi Securities Exchange (NSE), CSR has predominantly remained a voluntary practice at the discretion of the management (Ndinda, Namusonge, & Kihoro, 2015). In an attempt to enhance their corporate image and visibility, many listed firms are actively involved in various CSR activities relating to the community, investors, employees, customers, suppliers and environment (Kishimbo, 2016). However, CSR activities have recently proliferated owing to the firms realizing that their success is contingent upon satisfying the needs of multiple stakeholders. This has motivated a number of listed firms to integrate CSR endeavors as part of core corporate strategies. Nonetheless, there is sufficient evidence that many firms are gravitating towards CSR schemes since fulfilling social obligations is no longer an option, but it has become an integral part of building and maintaining long-lasting intangible asset in form of corporate image (Ponnu & Okoth, 2009). Moreover, corporate image has turned to be one of the firm's critical leverage as well as treasured intangible assets since it plays an important role in improving FP (Amini & Dal-Bianco, 2017).

1.1.1 Firm Performance

FP is a measure of a firm's ability to optimally utilize its primary resources to achieve its strategic goals (Hasan, Kobeissi, Liu & Wang, 2016). According to Chtourou and Triki (2017), FP is the economic output arising from the interplay among firm's actions, attributes and environment. FP is also connoted as the outcomes achieved via meeting internal and external goals of a firm (Frynas & Yamahaki, 2016). Hafez (2017) describes it as the ability of an organization to attain its strategic objectives. On the other hand, Valmohammadi (2014) defines FP as the ability of an organization to capitalize on strengths to surmount its weaknesses, to neutralize threats and optimally take advantage of the existing opportunities. Furthermore, Sharabati (2018) delineated

FP as a composite of both organization's financial and non-financial wellbeing and its willingness and ability to meet its long term commitments and obligations to provide products/services for a foreseeable future. Given the diversity of the definitions, FP can therefore be described as an objective measurement of outcomes of company's strategies, operations and policies against predetermined objectives.

FP is important since it determines the ability of the firm to deliver its products/services in an effective and efficient manner (Usman & Amran, 2015). According to Kim, Kim and Qian (2015), FP provides guidance on matters relating to assets acquisitions, business developments and managerial control. Good FP attracts new investors and equally motivates the existing shareholders to take up additional investments as long as they are profitable (Watson, 2015). In addition, FP is important in financing decisions since well performing firms are in a position to raise additional capital easily from multiple sources (Zeng, 2016). Subramanian, Iranmanesh, Kumar and Foroughi (2019) underscored the importance of FP by suggesting that it shows the sustainability of an organization and it is a good indicator of whether a firm is a going concern of not.

FP is a complex and multifaceted construct with no single consistent metric for quantifying it. Despite this complexity, a large body of empirical literature has identified a varied spectrum of indicators that are used to proxy FP. The commonly used measures can be categorized into two: financial and non-financial indicators. Financial performance measures can further be decomposed into market-based measures (Tobin Q, price earnings ratio, price to book value ratio) which measures returns from shareholders' perspective and accounting-based measures (net profit margin, return on assets, return on sales, gross profit margin and return on equity) which shows response of company's earnings to different corporate managerial policies

(Variza, 2019). Although accounting based financial measures have been widely used in vast of empirical investigations owing to its availability, it has equally been criticized for being historical in nature, susceptible to management manipulation and also largely depends on variation in accounting procedures. Examples of prior empirical studies that employed analogous set of measures include: Priyadarshini and Gomathi (2018); Almagir and Uddin (2017); Zainab, Anju and Muneer (2018) and Nawaiseh (2015).

On the contrary, market based measures are forward looking and capture future performance. In comparison to accounting based measures, market based measures are not prone to differential accounting procedures and managerial misrepresentations. These measures generally represent investor's assessment of company's ability to generate future economic benefits rather than historical performance (Usman & Amran, 2015). Examples of empirical investigations that adopted these set of measures include: Chen and Lee (2017); Haryono and Iskandar (2015); Zhao and Murrel (2016); Masdupi and Yulius (2017) and (Park 2017). However, the major shortcoming of market based measures is that they are only applicable to publicly listed firms. Moreover, market based measures exclusively consider market factors and are vulnerably affected by macroeconomic fluctuations.

Conversely, non-financial performance measures target non-monetary aspects of the firm and focuses on operational success factors such as customer satisfaction; market share; efficiency and productivity; learning and growth as well as internal business processes. These measures provide businesses with feed forward information that is future oriented thus being more relevant for planning purposes (Ado, 2016). Additionally, it provides a closer link to long term organizational strategies. Empirical studies that adopted such indicators to proxy analogous variables include: Vazquez,

Juarez and Castuera-Diaz (2019); Arendt and Brettel (2018) and Choongo (2017). Despite its popularity, these measures are biased in nature and their computation may vary over time and often differs between companies, which hinders inter-firm performance comparison. Likewise, these metrics are easier to manipulate than financial indicators since they are rarely subjected to public scrutiny.

Integration of both financial and non-financial performance measures provides holistic approach of measuring performance (Kim & Ferguson, 2019). Although vast of prior empirical studies relied heavily on traditional financial measures, these metrics however unlike non-financial measures have major limitations. They provide little indication of future performance, ignores intangible assets which are the key drivers of organizational success, are internally rather than externally focused and also lack strategic focus (Kaskeen, 2017). This study integrated both financial (PBV ratio) and non-financial indicators (customer satisfaction; learning & growth and internal business processes). Among the studies that combined both financial and non-financial measures include: Choongo (2017); Ali, Danish and Asrar-ul-Haq (2020) and Vazquez *et al.* (2019). Despite the heterogeneity of performance measures, the most prevalent universally accepted and applied metrics are drawn from balanced popularized by Kaplan and Norton (1994).

1.1.2 Corporate Social Responsibility

CSR is defined as deliberate activities undertaken by the firm with an aim of improving social objectives beyond the interest of the company and that which is prescribed by the law (Jun, 2016). According to Zeng (2016), CSR is the ethical, legal, economic and unrestricted expectations of the society at its elementary point of organization. Dyduch and Krasodomska (2017) delineate CSR as configuration of organizations activities

towards promoting the social welfare of diverse stakeholders. Ibrahim and Amid (2019) construe CSR as a set of strategic oriented practices that outline sound business or management practices, transparency and firm's disclosure. Chen and Lee (2017) consider CSR as part of corporate objectives intentionally crafted and integrated by the business and are not directly linked to economic objectives of the business, but are rather meant to address salient negative external factors that enhance firm's conditions and quality of life of people in the society.

Moreover, Mansaray and Brima (2017) describe CSR as proactive, voluntary and strategic commitment of the firm to concurrently satisfy the needs of multiple stakeholders and also preserve the environment beyond what is legally stipulated, and whose application can create long term value. CSR has been defined as a concept, practices, policies and programs that have been widely adopted and applied in a variety of business contexts, and the social, cultural, economic and political relationships they have to the societies in which their business operations are based (Sindu & Arif, 2017). Despite the heterogeneity and plethora of definitions of CSR, social investments can be described as a noble way in which firms simultaneously adapt social, economic and environmental concerns into their values, culture, operations, decision making and strategies responsibly in order to establish sound practices which improve the society.

The basic argument in favour of CSR rest on its key economic benefits it brings to the organizations that actively participate in social activities. Huang and Lien (2012) suggest that CSR engagements increase staff involvement in firm activities, helps in building goal congruence and equally motivate employees hence leading into increased productivity. Investing in socially responsible programs not only help in reinforcing the capacity of the firm to attract and retain talented workforce but also strengthens firm's corporate image capital and enhances corporate brand (Hafez, 2017). According to

Vazquez *et al.* (2019), CSR schemes enhances greater revenues resulting from higher sales and makes it easier for firms to market their products by taking advantage of unforeseen opportunities and services hence increasing the company's market share. Social investments endorse opportunities for greater innovation which leads into creation of diverse intangible assets which in turn gives firms superior competitive advantage (Agyemang & Ansong, 2016). Moreover, CSR not only play significant role in attracting valuable investors, but also act as insurance like protection against potential damages arising from negative effects and therefore minimizing costs and inherent firm related risks (Usman &Amran, 2015). CSR practices therefore result into exceptional synergistic value creation.

CSR is a multidimensional construct that presents numerous challenges in measuring especially in combination with other variables (Yusoff & Adamu, 2016). Multiple empirical analyses have decomposed CSR into heterogeneous dimensions (indicators) such as CSR relating to environment, community, product quality, governance, employees, customers, investors and suppliers (Jain, Vyas, & Chalasani, 2016). In addition, Nguyen, Ngo, Nguyen, Cao and Pham (2019) also suggest that extensive range of CSR obligations is clustered into philanthropic, legal, ethical and economic dimensions. These dimensions can be aggregated into one composite index such as Kinder, Lydenberg and Domini's (KLD), Vigeo index and Dow Jones sustainability (DJS) index or one-dimensional surrogate measure that picks on one dimension of CSR such as environment, community, customers or employees, suppliers or investors.

Owing to heterogeneity of CSR dimensions, there are divergent approaches of measuring CSR. The first approach involves use of indices that are compiled by specialized rating agencies. The major indices include: Kinder, Lydenberg and

Domini's (KLD) index, Vigeo index, DJS index, Asian sustainability ratings (ASR), Best corporate citizens (BCC), global reporting index (GRI) and financial times stock exchange (FTSE) 4 Good index among others (Mata & Ibrahim, 2018). These indices are obtained by aggregating diverse dimensions of CSR whose themes are similar across indices into a single metric. This method of evaluating CSR has been widely employed in several studies such as Zhao and Murrel (2016); as well as Oh and Park (2016). The major advantage of using indices as measure of CSR is availability of data and comparison across firms is made possible (Hanzaee, & Sadeghian, 2014). Despite the popularity of these measures, empirical evidence however documents major weaknesses of these indices. To begin with, they are typically compiled by private companies driven by their own agendas and rarely employ scientific methods in computation of these measures. Secondly, rating agencies provide aggregated CSR scores, making it difficult to ascertain the impact of a specific CSR dimension of interest. Thirdly, rankings are very subjective in nature and the findings vary depending on the observer's prejudice. Finally, many indices simply cover a small geographic area making its applicability across firms practically impossible.

The second approach of evaluating CSR is via content analysis of secondary data. This technique involves analysis of the degree of CSR disclosures in company's annual reports (Variza, 2019). Its focus is on determination of constructs of particular interest, gathering information about these indicators and codification of quantitative information to derive quantitative scales that can eventually be used in statistical analyses. Empirical studies that have utilized these measures include: Mansaray and Brima (2017); Nag and Bhattacharyya (2016); Laskar and Maji (2017). The principal advantage of this method arise from its flexibility since the researcher can specify CSR dimensions of interest, collect data on the basis of identified dimensions and also

numerically code data. Nonetheless, Horyono and Iskandar (2015) identified some major drawbacks of using content analysis to proxy CSR disclosure. First, its primary focus is on number of words and ignores graphics, font sizes and photos of CSR activities. Secondly, it is a subjective measure which focuses on the number of CSR disclosures rather than qualitative attributes of CSR. Lastly, content analysis does not capture the quality of reporting or disclosures but rather considers the number of words.

The third method of measuring CSR is through questionnaire based surveys. This approach is suitable where there is paucity of secondary data, where corporate reports are insufficient or unavailable for a meaningful content analysis, or where firms are not ranked by the rating agencies (Variza, 2019). The main advantage of questionnaire based surveys is that they are flexible in terms of specification of dimensions of interest and gathering of data regarding the identified constructs. However, this approach suffers from response bias; it is costly and time consuming as well. Among the studies that have relied on these set of measures include: Asatryan and Brezinova (2014); Widiastuty and Soewarno (2019); Chakroun and Jarboui (2019); Adewoye and Olawaye (2018) as well as Han, Kim and Yu (2016).

The fourth approach of evaluating CSR is through the use of one-dimensional constructs that focus on a single dimension of CSR for instance community, employees, environment, investors or suppliers among others. This approach has been widely employed by a number of prior studies such as Enahoro, Akinyomi and Adedayo (2013) as well as Manrique and Carmen (2017). The key strength of one-dimensional measures is the availability of data. Nevertheless, the major weakness of this method is that it is theoretically problematic since CSR as a concept is a multidimensional construct (Alrubaiee, Aladwan, Juma, Idris & Khater, 2016). This study employed

environmental, community, employees, customers, investors and suppliers dimensions as measures CSR. Despite the existence of diverse measures and approaches of measuring CSR, GRI framework has universally been accepted and widely adopted guideline for social performance with 19 dimensions for CSR measurement.

Although the relationship between CSR and FP has not been fully or explicitly scrutinized, either empirically or theoretically in prior studies, the link has only been inferred in several studies (Geetika & Shukla, 2017). To date, there is no consensus as to whether CSR improves FP or not. How CSR affects FP remains unclear due to divergence in empirical findings. Proponents of CSR hold that social investments improve FP because of easier access to vital resources, ability to attract and retain talented employees, higher corporate sales, positive image and reputation, cost savings and finally reduction in CSR related risks (Huang & Yang, 2014; Kabir & Qayum, 2016). In contrast, critics of CSR suggest that social investments compete with value maximizing objective of the firm and the social related activities increase operational costs without sufficient offsetting benefits and therefore hurting FP (Tuppura, Arminen, Pätäri & Jantunen, 2016).

1.1.3 Corporate Image

Corporate image is amalgamation of individual's opinions, experiences, impressions, feelings, knowledge, ideas and beliefs about an organization (Almagir & Uddin, 2017). According to Galant and Cadez (2017), corporate image is aggregate perceptual representation of a corporation in the minds of diverse segments of stakeholders. Rodrigo, Duran and Arenas (2016) define corporate image as a composite of stakeholder's impression or perception of the manner in which a firm projects itself consciously or unintentionally. Almagir and Uddin (2017) describe corporate image as

outside world's overall impression of the firm including views of shareholders, clients' media and general public. As suggested by Rahman (2016), corporate image denotes customer's reaction to the total contribution and may be deemed as the summation of ideas, beliefs and impressions that the public has of an organization. From these multiple definitions, corporate image is the overall mental image or temporal impression retained in the customer's mind owing to ideas, feelings and experiences with the company, kept in memory, turned into either positive or negative meaning, recovered to rebuild image and remembered when the name of the company is mentioned.

A favourable corporate image is important since it is an intangible corporate asset which heightens stakeholder trust and confidence. As articulated by Kabir and Qayum (2016), positive corporate image enables firms to easily attract capital, strategic business partners and to capture markets with little difficulties. Image capital is a value maximizing mechanism which increases customer loyalty and is an important indicator of product quality when clients are faced with choices among competing products. Notably, companies with positive corporate images are less susceptible to market risks in comparison with firms with little positive images. According to Rahman (2016), corporate image is a strategic tool that signifies organizations perceived capability to meet stakeholder expectations. As suggested by Ansong (2017), corporate image is a strategic investment which helps in reducing the transaction costs and enables firms to charge exorbitant prices and earn above average returns which leads to superior FP. Furthermore, Chen and Lee (2017) underscored the importance of corporate image by suggesting that it attracts customers and investors, gives a firm a privileged access to the best workforce, broadens firm's access to new markets, establishes corporate goodwill and minimizes stakeholder activism (Baraibar-Diez & Luna-Sotorrío, 2018).

Corporate image is a multidisciplinary concept that is difficult to quantify owing to its multidimensionality (Tuppura *et al*., 2016). The principal conventional indicators used to measure corporate image include: emotional appeal; vision and leadership, innovation; quality of products or services and ability to attract talented workforce. These indicators have been aggregated into corporate image indices such as reputation quotient, Fortune reputation quotient and Reptrak-TM image/reputation quotient developed by Fombrun, Gardberg and Sever (2000). These indices provide firms with standardized framework for benchmarking their corporate image/reputation internationally. Examples of studies that have relied on analogous set of indicators include: Pradhan (2016);Yang *et al.* (2017); Taghian, Souza and Polonsky (2015); Chen and Lee (2017); Priyadarshini and Gomathi (2018); Myskova and Hijeck (2019); Kabir and Qayum (2016) among others have extensively researched on the effect of corporate image on FP. They suggest that corporate image is an important intangible corporate asset that positively influences the firm's profitability. To measure corporate image, the study adopted emotional appeal, innovation, vision and leadership as well as quality of products/services as the key indicators of corporate image. However, there is no single measure that can wholly be employed to proxy image owing to variation in conceptualization of the concept.

Although the nature and the extent of CSR to date has largely been defined by ethical, legal, economic and philanthropic responsibilities to the society, its effectiveness is determined by the resulting corporate image that guides social and moral legitimacy of the firms (Schreck & Raithel, 2015). Usman and Amran (2015) hypothesize that the link between CSR and FP is not direct and depends upon the intervening effect of corporate image which is a critical intangible asset. Pradhan (2016) argues that engaging in CSR activities endorses favorable relation with various stakeholders by

building trust and credibility which eventually leads into corporate image gains. Corporate image is augmented when diverse stakeholder needs and expectations are met through CSR.

Investment in CSR activities often leads into corporate image capital. CSR is a strategic instrument that is useful in boosting corporate image via improved customer satisfaction and loyalty as well as highly motivated staff (Chen & Lee, 2017). Moreover, socially responsible firms are in a better position to penetrate market easily and equally attracting new customers (Rahman, 2016). This has a potential of augmenting the corporate image in the eyes of diverse stakeholders. A similar view is expressed by Myskova and Hijeck (2019) who suggest that firms that participate more in CSR actions are characterized by good corporate image. As a result, adoption of CSR schemes is viewed as ideal corporate strategy that yields higher levels of image capital.

There is sufficient theoretical and empirical evidence that suggests that corporate image consequently leads to improved FP. Exceptional corporate image provides firms with competitive edge since it results into both monetary and non-monetary gains (Priyadarshini & Gomathi, 2018). Positive corporate image helps firms to attract investments, align with the market demands as well as motivating employees (Usman & Amran, 2015). Consequently, good image leads to enhanced FP. Tuppura *et al*. (2016) argues that good corporate image further improves FP by enhancing customer loyalty, attracting customers, attracting talented employees, attracting capital and strategic partners, increasing sales and enabling firms to charge premium prices for their products (Taghian *et al.,* 2015).

1.1.4 Firm Size

Firm size is a range and quantity of production capacity a firm possesses and the firm's service diversity that can simultaneously be offered to numerous clients (Nawaiseh, 2015). According to Watson (2015), firm size is the capacity of organization's resources, workforce size as well as turnover. Kelley, Hemphill and Thams (2019) define firm size as the magnitude of the organization's resource capacity in terms of assets, employees, sales, market capitalization and number of shareholders. Similarly, Ikram, Sroufe, Mohsin, Solangi, Shah and Shahzad (2019) delineate firm size as the proportion of assets possessed by an organization that have productive capabilities. In sum, firm size can be described as a magnitude of firm's resource endowment, production capacity as well as service multiplicity which can be availed to key stakeholders.

Prior empirical examinations suggest that firm size plays a significant role in determining CSR-FP relationship. As pointed out by Zhao and Murrel (2010), large firms tend to outperform small ones since they enjoy economies of scale; their operational activities are more efficient and their average cost of production is relatively lower. Similarly, Deng and Long (2019) argue that larger firms exhibit greater stability and maturity and are capable of generating more sales owing to greater production capacity. Due to massive resources at their disposal, large firms often have broader pools of talented and qualified human capital and easier access to credit facilities from financial institutions which gives them a leverage to optimally exploit various investment opportunities. This actually enables large firms to achieve greater strategic diversification (Kaskeen, 2017). Furthermore, Isa and Jamilumadaki (2017) postulate that larger firms are more efficient in production; have greater bargaining power over suppliers, distributors or clients; exploit experience curve effects and set prices above

the competitive level. Ansong (2017) suggests that due to functional specialization, differentiation and decentralization, larger firms have more evolved administrative processes; more specialized personnel and more sophisticated internal systems to deal with firm's concerns which results into lower operational costs.

Empirically, Kim *et al*. (2015) provide an array of diverse indicators that are used to measure firm size such as total assets, sales turnover, market capitalization and the number of employees. However, this study used asset base and sales turnover as metrics for operationalizing firm size. Nawaiseh (2015) used log of assets, sales and employees as a proxy for measuring firm size while investigating whether CSR is a significant determinant of FP and concludes that large firms engages more in CSR activities owing to their massive resource endowments. Using analogous specifications, Kakakhel *et al.* (2017) found out that the ability of the firm to engage in social obligation and its potential effect on FP is contingent upon its size in terms of assets, sales and market capitalization. Furthermore, Oh and Park (2015) used log of the number employees and market value of equity to proxy firm size. They noted that large firms often post exemplary performance especially in an environment characterized by heightened CSR activities. Despite the existence of several proxies that are used to measure firm size, there is no consensus on a single metric that captures all the attributes of the construct.

Theoretical and empirical literature suggests that the relationship between CSR and FP vary with firm size. Theoretically, varying levels of the firm size affects the strength/direction of CSR-FP relationship by enhancing, reducing or reversing the hypothesized linkage. Adamska, Dabrowski and Grygiel-Tomaszewska (2016) assert larger firms can easily afford increased CSR expenditures owing to higher levels of slack resources at their disposal and this has greater impact on overall FP. In contrast,

CSR has minimal effect on FP for smaller firms due to resource constrains since they devote most of their resources to enhancing performance in their corporate undertakings through more traditional activities. Furthermore, Kim *et al.* (2015) argues that for larger firms, CSR actions have stronger positive effect on FP based on the efficiency argument of firm size emanating from benefits derived from the economies of scale. On the contrary, smaller firms do not enjoy economies of scale hand therefore CSR activities have marginal effect on FP.

1.1.5 Firms Listed at the Nairobi Securities Exchange

A securities exchange is a centralized organized market place where the financial securities of firms that trade publicly traded are purchased and sold (NSE, 2021). Securities exchange plays an important role in raising equity capital, encourages firms and investors to be open and transparent via improved corporate governance, creates investment opportunities and mobilizes savings for investments. Nairobi Securities Exchange (NSE) is one of the principal bourses in East Africa that plays an important role in listing and raising of capital. There are 61 firms listed at the NSE which can further be classified into eleven segments as shown in Appendix III (NSE, 2020). The operations of these firms are under the supervision of the Capital Markets Authority (CMA). The NSE provides an automated platform for trading bonds, equities, Real Estate Investment Trusts (REITS) and derivative products. In terms of number of share traded, NSE ranks 5th in Africa and 6th in terms of market capitalization (NSE, 2020).

To provide investors with market performance measures, NSE introduced the NSE All Share Index (NASI) in 2008. This is a market performance weighted index consisting of the entire quoted securities. NSE together with Financial Times Stick Exchange (FTSE) international in 2011 came up with FTSE-NSE Kenya 25 indices for developing

a performance index for tracking derivative products and funds. The NSE has four major listing categories, namely; Alternative Market segment, Fixed Income Securities Income segment and Growth Enterprise Market segment. With exception of the last market segment that caters for small firms, the other three market segments cater for large and medium size firms.

Ostensibly, NSE has undergone tremendous positive developments since its inception, which includes enactment of prudent trading rules including revised listing requirements for green bonds as well as introducing exchange traded funds in 2019. In 2018, NSE was admitted as a full member of world federation of exchanges as well as launching acceleration incubation program for firms to grow their businesses. The NSE introduced next derivative market in 2019 becoming the 2nd bourse in African continent to launch exchange traded derivatives. Other notable developments include establishment of central depository system (CDS), automation of its trading activities and demutualization (NSE, 2017). Nevertheless, the firms listed at the NSE vary in terms of CSR practices, corporate image capital, sizes and performance.

Many firms at the NSE are incorporating CSR programs into their core business activities through increased CSR expenditure. For instance, Kenya Commercial Bank (KCB) has committed 50 billion shillings for the period 2020-2024 for various CSR activities. Safaricom also spent 275 million shillings in the year 2018 in financing 165 community related CSR programs (CESRA report, 2018). The focus of CSR intensity on a particular dimension of social performance among the listed firms at the NSE vary based on the economic sector in which the firm is domiciled. With the help of CMA, firms listed at the NSE are in the process of developing a comprehensive framework for adopting environmental, social and governance (ESG) scores based on GRI

guidelines to ensure uniformity in reporting CSR related activities (NSE, 2020). Integrating ESG practices into the firm's strategy, operations and performance management generates significant value by building unique resilience through improved corporate image.

Similarly, firms listed at the NSE continuously seek to attain favourable corporate image by undertaking numerous CSR activities. For example Equity holdings, KCB, Cooperative bank have funded secondary thousands of needy students who have excelled at the primary level. Standard charted bank and Safaricom on the other hand have funded global sporting activities such as Stanchart and Lewa marathon. These socially responsible actions have elevated the corporate image of these listed firms as a result of increased positive publicity (CESRA report, 2018). At the NSE, a number of firms are currently suspended owing to performance and CSR related issues (NSE, 2021). These firms include: Athi River mining, Deacons Ltd, Mumias sugar and Kenya Airways. Suspension of these listed firms has eroded stakeholder confidence in the market hence tainting their corporate image capital as well as their overall performance. Furthermore, the image of some firms have been greatly affected by failure to be socially responsible for instance Kakuzi plc was accused of violation of human rights in 2020 (CESRA report, 2020).

Among the listed firms at the NSE, 81.97% posted impressive profits after tax while the remaining 18.03% recorded marginal losses (NSE, 2018). Moreover, the average domestic market capitalization at NSE in 2018 was approximately 25,631.21 US dollars; domestic market turnover was 155.34 US dollars while average market turnover ratio was approximately 0.61%. In regard to the firm size, the asset base and

sales turnover on average recorded minimal growth owing improved business environment and stable political environment (NSE, 2019).

The choice of firms listed at the NSE is motivated by the fact that it is possible to probe CSR across different sectors of the economy, it is possible to evaluate the market based measures which is only achievable with firms listed at the NSE and also owing to their relatively big and varied sizes, listed firms are in a position to sustain notable CSR programs (CESRA report, 2018). Listed firms also vary in terms of image capital and this can be attributed to intensity of CSR adoption. It is also possible to compare listed firms due to their uniform reporting framework and data is also readily available.

1.2 Research Problem

The link between CSR and FP has attracted debate among the academics and policy makers. Although theoretical literature points to a positive relationship between CSR and FP, the empirical evidence is however inconclusive, with a growing number of studies indicating a negative relationship (Kim *et al.,* 2015; Jung & Pompper, 2014). From empirical perspective, how CSR affects FP remains controversial due to reported mixed empirical findings. These findings can be clustered into three categories: positive correlation (Pradhan, 2017; Laskar & Maji, 2017), negative correlation (Peng & Yang, 2014; Baird, Geylani & Roberts, 2012) or no correlation (Arshad, Anees & Ullah, 2016; Ponnu & Okoth, 2009). Divergence in findings is attributed to varied theoretical foundations, lack of universal measures of study variables, selection of key as well as control variables, contextual differences, methodological variations and sampling shortcomings.

Among the listed firms, some companies are reporting better performance compared to others. For instance, Safaricom, Equity Holdings, East Africa Breweries Ltd, KCB among others have consistently posted impressive FP. Therefore, it is important to investigate whether investment in CSR, corporate image and variation in firm size explain this disparity. CSR is a costly exercise that consume significant amount of resources and it is also difficult to accurately predict, measure, optimize and track its effectiveness (Ndinda *et al*., 2015). Although it is expensive, many listed firms continue to invest more in these social programs (Kishimbo, 2016). It is therefore important to probe whether the benefits that accrue from engaging in CSR schemes such as positive corporate image and improved FP outweigh the associated costs of undertaking socially responsible programs among the listed firms.

The debate as to whether CSR engagements are capable of creating sufficient corporate returns in form of positive corporate image and improved FP to justify the efforts that firms make to be socially responsible remains controversial owing to multiple divergent views. Empirical works underpinned by neoclassical theorists such as Friedman (1970) suggest that CSR practices unnecessarily increases company's operational costs as a result of agency costs and inefficient allocation of resources, therefore putting firms in a position of competitive disadvantage in comparison to their rivals in a free and competitive market. In contrast, proponents of CSR schemes have arguably contested the traditional view of shareholders' wealth maximization by claiming that undertaking social programs can have a positive effect on FP by providing valuable resources such as corporate image, creating unforeseen business opportunities, marketing of products/services, and finally attracting and retaining high quality staff. These contrasting viewpoints have not been reconciled and the pursuit of a common ground persists therefore resulting into a plethora of empirical investigations.

The lack of convergence in findings on the empirical studies can partly be attributed to research methodological differences and measurement or selection of the key variables. Operationalization of CSR, corporate image, size and FP still poses conceptual challenges owing to existence of divergent metrics that can be used to proxy these variables. Another plausible explanation for the conceptual disconnects is that the bulk of empirical studies have been bivariate; focusing only on CSR and FP. These studies however have one limitation. Due to their bivariate nature, the findings can only be interpreted as significant correlations, not causal relationships. The link between CSR and FP is not direct, but it is moderated and mediated by a number of external factors. Omission of moderating and mediating factors such as corporate firm size and corporate image respectively often leads into biased findings by over-estimating the effect of CSR on FP. Furthermore, CSR-FP bidirectional causality relationships have also contributed to divergent findings.

Establishing a clear CSR-FP empirical link is extremely difficult since these variables differ from one setting to another. These contextual differences are attributed to variation in regulatory, economic, political and cultural environments between developed/developing markets as well as industry related differences. At the methodological level, inconsistent findings are as a result of misspecification of econometric models, different study time periods and samples differences (Mikolajek-Gocejna, 2016). In order to establish a causal link between CSR and FP, this study extends the prior bivariate studies by integrating corporate image and firm size as intervening and moderating variables respectively. Furthermore, this study relies on the local context which is largely understudied. This study therefore seeks to fill these critical research gaps. Consistent with the research problem, this study seeks to address

the following research question: what is the relationship between corporate social responsibility, corporate image, firm size and performance of firms listed at the NSE?

1.3 Research Objectives

The main objective of this study was to determine the relationship among CSR, corporate image, firm size and performance of firms listed at the NSE. Specifically, the study sought to:

i. Investigate the relationship between corporate social responsibility and performance of firms listed at the NSE.
ii. Examine the effect of corporate image on the relationship between corporate social responsibility and performance of firms listed at the NSE.
iii. Establish the influence of firm size on the relationship between corporate social responsibility and performance of firms listed at the NSE.
iv. Determine the joint effect of corporate social responsibility, corporate image and firm size on performance of firms listed at the NSE.

1.4 Value of the Study

This study is expected to make significant threefold contribution: the findings will expand the existing literature on CSR and FP by introducing the determining effect of corporate image and firm size on this relationship. It is predicted that the study will explain the role of firms' corporate image in mediating CSR-FP relationship among firms listed at the NSE. Similarly, the present study is expected to give more insights on whether the varying levels of the firm size either enhances, reduces or reverses the effect of CSR on FP. The findings of this study are anticipated to contribute to deeper understanding of CSR-FP relationship by showing that the relationship is not direct but it is intervened and moderated by other external factors.

The findings of this study are anticipated to give valuable insights on drawing policy prescriptions in regard to the debate on the potential effect of CSR on FP. The findings will be a point of reference to government and other policymakers in formulation of comprehensive and solid institutional framework to make CSR activities relating to all themes (dimensions) mandatory like many developed countries. Like in developing countries, the findings of this study are predicted to play a significant role in coming up with a legal framework for establishing a reasonable percentage of firm resources that are to be devoted to CSR schemes. In addition, the findings are predicted to aid in development of CSR performance index specifically tailored to Kenyan context which is currently lacking which can be used in ranking firms based on their social performance. The score on environmental performance was of significant importance to the government incoming up with policies geared towards safeguarding the environment in the wake of global concerns in regard to global warming.

Finally, the research findings are expected to be of considerable value to management practice. Based on the study findings, managers can understand whether CSR practices are capable of fostering good stakeholder relationships with important stakeholders such as community, suppliers, customers and environmentalists so as to improve corporate FP thus confirming the relevance of stakeholder theory. Secondly, the findings of this study are expected to help managers to understand the potential effect of CSR on performance and therefore guide them in deciding how to allocate resources to CSR endeavors. CSR is therefore vital in enhancing firm's competitive position.

1.5 Organization of the Thesis

This thesis is structured into six chapters; first chapter is the introductory part which begins with the background of the study. Conceptual, theoretical, motivation and contextual study arguments are presented in the background of the study. Conceptualization of the four key variables, namely: CSR, corporate image, firm size and FP is clearly articulated. An overview of the context of the study is elaborated and the current status of the study variables is discussed in this section. Research problem is clearly articulated where pertinent issues are outlined and research gaps in form of conceptual, contextual and methodological variants are highlighted. Research objectives in terms of the main and specific objectives are stated in this chapter. Contribution of the study in regard to theory development, management practice and policy formulation is captured in this section.

Second chapter reviews empirical literature that consists of an in-depth analysis of various theories that anchor the study. In theoretical sub-section, the key propositions, proponents, opponents and critique of numerous theories is presented. It outlines comprehensive global, regional and local review of various empirical studies in regard to the relationship among CSR, corporate image, firm size and FP. Summary of empirical literature is presented in this chapter where conceptual, contextual and methodological gaps are laid out. Conceptual framework is also presented where the theoretical linkage of study variables is enunciated and the indicators of the study are given. Finally, drawing on the conceptual framework, the research hypotheses are highlighted.

Third chapter provides elaborate methodology of the study. It synthesizes the philosophical stances and major paradigms applied in social sciences. Research design

is clearly outlined; the population of the study is equally elaborated. Data collection methods (both primary and secondary) are captured in this section. Operationalization of study variables is described in terms of variables, notations, operational definitions and measurement scales in this chapter as well as in-depth analysis of validity and reliability tests. Furthermore, diverse diagnostic tests for ascertaining conformity to the basic regression assumptions are presented in this section. Lastly, various econometric models conceptualized on the basis of research objectives are documented in this chapter.

Fourth chapter covers descriptive statistics and presentation of data. It presents the response rate as well as the outcome of validity and reliability tests. It provides some elaborate descriptive statistics for the study variables. The findings of various diagnostic tests namely: normality, linearity, homogeneity of variance as well as multicollinearity test is also presented in this section. Finally, correlation analysis is reviewed where variables were paired and the strength and direction of the relationship was determined.

Fifth chapter is devoted to hypotheses testing and discussion of findings. This is in regard to: one the relationship between CSR and FP; two, the mediating effect of corporate image on the relationship between CSR and FP; three, the moderating effect of firm size on CSR-FP relationship; four; the joint effect of CSR, corporate image and firm size on FP. Fifth chapter is dedicated to introduction, summary of the key study findings and conclusions drawn based on the hypotheses tested. Additionally, the contribution of the study with respect to theory development, policy formulation and management practice is also captured. Finally, the limitations of the study as well as suggestions for areas for further research are also discussed in this section.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two gives an exposition of theoretical framework and relevant concepts that relates to the study regarding to relationship among CSR, corporate image, size and FP. The relevant theories that underpin the study such as the legitimacy (anchoring theory), stakeholder, resource based view and signaling theories are discussed. The literature review section synthesizes and reviews previous empirical works in regard to the linkages among the study variables on the basis of identified research objectives. Moreover conceptual, contextual and methodological gaps are highlighted in this chapter. Conceptual framework which schematically delineates how variables are conceptually linked is also presented in this chapter. Finally, the research hypotheses are outlined in this section.

2.2 Theoretical Literature

This study is grounded on four major theories: legitimacy, stakeholder, resource-based view and signaling. These theories play a vital role in explaining the relationship among corporate social responsibility, corporate image, firm size and performance of firms listed at the NSE.

2.2.1 Legitimacy Theory

Legitimacy theory was pioneered by Dowling and Pfeffer (1975) and provides a fundamental theoretical basis for investigating CSR-FP relationship. Antonio, Francisco and David (2019) define legitimacy as a generalized assumption or perception that the actions of an organization are appropriate or desirable within some socially constructed system of values, norms and beliefs. Legitimacy theory predicts that an

implicit social contract exists between the firm and the society, and community support is essential for survival, growth and image capital of firms (Sadeghi, Arabsalehi & Hamavandi, 2016). In order to receive social validation, firm's operations must be perceived to be within the acceptable bounds and norms of the society since it confers power and legitimacy upon businesses (Jun, 2016). Societal expectation encompasses economic, environmental, legal and social factors (Jaiswal, Rastogi & Banerjee, 2019).

Building on current theoretical framework, Giannarakis, Koenteos and Partalidou (2016) identified three fundamental dimensions of legitimacy: moral (based on normative approval) cognitive (based on comprehensibility and casual actions) and pragmatic (based on audience self-interest). Firms must constantly disclose specific information to convince the society that their actions are legitimate and beneficial. Therefore, firms persistently legitimize their corporate actions by engaging in CSR so as to get approval from the society and firms may benefit through improved investor appeal, better corporate governance ratings and corporate image gains (Zainab *et al.*, 2018). CSR is capable of mitigating the likelihood of negative legislative, regulatory and fiscal actions (Salehi, Lari-DashtBayaz & Khorashadizadeh, 2018).

Central to legitimacy theory is Pradhan (2016)'s argument that legitimacy is an important facet for firms as it can strategically be used to increase resources and bolster FP. Furthermore, Bissoon (2018) claims that higher levels of legitimacy enable firms not only to access vital resources, but also to insulate themselves from stakeholder activism. A similar view is expounded by Shan and Taylor (2014) who posit that legitimacy shapes investors' behaviour, increases stakeholders' loyalty to the firm and readiness to approve of company's policies, actions and decisions. However, Monrique and Carmen (2017) question the validity of legitimacy theory by asserting that it

difficult to define “social contract” since it is not permanent in nature. This theory seeks ways to explain or describe behaviour of firms but does not prescribe how they should behave.

Furthermore, Wang and Jia (2016) point out the relevance of legitimacy theory in theorizing the connection between CSR and firm size by suggesting that firm size is an antecedent of organizational legitimacy. Basically, large firms particularly the publicly owned unlike smaller ones are susceptible and subject to more public scrutiny by diverse stakeholder groups since they are more socially visible and equally more vulnerable to adverse stakeholder reactions (Abdullah & Abdul-Aziz, 2013). Due to greater legitimacy needs, large firms are actively involved in CSR practices unlike smaller companies since enhancing corporate image is an important factor which motivates them to increase the scope of CSR practices (Baraibar-Diez & Luna-Sotorrío, 2018). Moreover, large firms are more diversified across geographical and product markets and they have more varied stakeholder groups (Widiastuty & Soewarno, 2019). By meeting societal needs on the basis of their sizes, firms derive social legitimacy by gaining better corporate image capital which plays a pivotal role in bolstering superior performance (Varenova, Samy & Combs, 2013). There is inevitable interdependence between society and the firm which is construed as a social contract. Therefore, survival of organizations largely depends on their ability to deliver socially desirable goods/services so as to obtain sufficient benefits that ultimately bolster their overall performance.

2.2.2 Stakeholder Theory

Stakeholder theory was advanced by Freeman (1984) and has evolved and emerged as the dominant paradigm in CSR-FP literature. Freeman (1984) defines stakeholders as any organizations, groups, or individuals having vested interests in outcomes or processes of the company and upon whom the company relies on in the pursuit of corporate objectives. Stakeholders include diverse constituents such as employees, customers, suppliers, shareholders, government and community at large. Chen and Wang (2017) outline four basic tenets of stakeholder theory. First, organizations have relationships with multiplicity of agents (stakeholders) that intervene in or are affected by management decisions. Secondly, stakeholder theory is overly concerned with the nature of these relationships in terms of outcomes and processes of the firm and its diverse stakeholders. Thirdly, the interests of entire legitimate stakeholders have intrinsic value and therefore there are no sets of interests that are assumed to supersede or rather dominate others. Lastly, stakeholder theory primarily focuses on managerial decision making.

Stakeholder theory is premised on the fact that survival and success of any firm depends on how well it manages its relationship with multiple stakeholders and advocates for treating all the stakeholders with honesty and fairness (Zeng, 2016). If stakeholders are treated well, they reciprocate by developing positive behaviors and attitudes towards the firm. Taghian *et al.* (2015) further advanced stakeholder theory by postulating that firms have a social responsibility to a large and integrated set of multiple stakeholders having power, legitimate expectations and urgent claims over the firm resources. Oh and Park (2015) argue that company's value is contingent upon implicit and explicit claims and pronounced CSR practices may lower the implicit claims, thereby resulting into improved FP.

Furthermore, Nag and Bhattacharrya (2017) provide better analytical theoretical perspective for understanding stakeholder theory by articulating three dimensions of stakeholder theory namely descriptive, normative and instrumental variants. Descriptive stakeholder theory explains the behaviors and characteristics of a firm and how to manage and communicate with numerous stakeholders in order to attain strategic corporate goals. Normative stakeholder theory is used in interpretation and identification of morals for management and operation of firms and to explain why firms focus more on stakeholder benefits rather than concentrating on shareholder interests. Finally, instrumental stakeholder theory is used to identify the linkage between corporate FP and stakeholder management. Specifically, instrumental variant explains whether a firm benefits from CSR activities with a combination of social trustworthiness and stakeholders' needs that are vital in gaining the competitive advantage.

Stakeholder theory is relevant to this study since it provides an elaborate framework for investigating the link between CSR, corporate image and FP. Stakeholder theory advocates for a better stakeholder management and CSR is one way of satisfying the interests of diverse stakeholders (community, employees, customers, investors, suppliers, and environment). Stakeholder theory argues that by delicately balancing the claims of shareholders with those of other stakeholders via CSR practices, the firm gains immense corporate image through better stakeholder relations and this leads into superior FP (Shan & Taylor, 2014). In sum, stakeholder theory explains the motivation for CSR schemes and how firms assign strategic resources (image capital) in order to build and manage proper relations with varied interest groups so as ameliorate FP.

However, the practicability of stakeholder theory has been questioned on various grounds. First, the pursuit of objectives of other stakeholders other than the shareholders reduces total welfare thus distorting the firm profits (Greetika & Shukla, 2017). Secondly, it is practically impossible to simultaneously satisfy the needs of an extended web of stakeholders. If this was the case, labour unions for instance could be circumvented, damaged or even abolished. Finally, the only corporate social responsibility of any firm should be the maximization of shareholder's wealth (Giannarakis *et al.*, 2016).

2.2.3 Resource Based View

Resource based view (RBV) originated from normative classical contribution of Penrose (1959) and was later refined by Wernefelt (1984). The fundamental proposition of RBVT explicitly underscores the need for a firm to exploit its unique internal resources including capabilities in the quest to gain competitive advantage and superior performance. The ability of any firm to gain competitive advantage primarily lies in the application of a bundle of resources at its possession which must be imperfectly immobile and heterogeneous in nature (Park & Choi, 2015). Building on Penrose's theory, Barney (1991) introduced VIRN framework which revolutionized RBV. This insightful framework theorizes that for resources to generate sustained competitive advantage, they must be unique (valuable), inimitable, rare and non-substitutable.

The central pillar of the RBV perspective is the argument that critical intangible resources such as corporate image can significantly contribute to performance variances amongst firms (Tyagi & Sharma, 2013). Positive corporate image leads to competitive advantage since it signals to different stakeholders the attractiveness of the firm, who are in turn more willing to contract the firm. By investing socially, a firm not only

develops and maintains internal resources (expertise, employee loyalty, etc.) but equally vital external resources such as corporate image and good relations with external stakeholders. Sodhi (2015) postulates that specialized capabilities or skills related to CSR can result into firm's specific economic benefits above the normal returns. The theoretical justification of CSR under RBV is embedded on the fact that it is a strategic investment in capabilities that allows a company to distinguish itself from its rivals and which boost its corporate image which further contributes to improved performance (Tuker, 2018).

The link between CSR, corporate image and FP can be investigated from the perspective of RBV. Specifically, RBV is relevant in explaining why firms outperform others in the corporate world. In relation to RBV, corporate image is conceptualized as unique important strategic resource having unique characteristics (VIRN) that gives firms' sustained competitive advantage which is reflected in improved FP. In line with these observations, good corporate image is an outcome of positive CSR practices and plays an integral role in strengthening the firm's competitive position (Galant & Cadez, 2017). RBV suggest that firm's competitive clout often leads to superior FP and this partly explains heterogeneity in performance among the competing firms. As a result, RBV is vital in theorizing the positive theoretical connection between CSR, corporate image and FP.

Conversely, the critics of RBV suggest that sustained competitive advantage is unachievable in reality, and the applicability of this theory is only limited to large firms (Zeng, 2016). Furthermore, RBV lacks serious managerial implication since it advocates for managers to obtain and develop VRIN resources but fail to provide guidance on how it is to be done (Pradhan, 2016). RBV has been criticized due missing

consensus in the use of numerous definitional terms such as resources, capabilities, assets and competencies (Antonio *et al.,* 2019). A consistent criticism labelled against RBV is the circular logic used to justify whether specific firm attributes signify valuable resources in RBV terms. This is because intangible resources such as corporate images are socially complex, causally ambiguous, and symbolizes unique historical contingencies that are not clearly delineated (Zhao & Murrel, 2016). Consequently, vast of contributions within the RBV have been conceptual rather than empirical in nature.

2.2.4 Signaling Theory

Signaling theory was propounded by Spence (1973) and hypothesizes that a single party can utilize observable mechanisms to exhibit its unobservable attributes. Su, Peng, Tan and Cheung (2016) posit that social programs and policies may lure potential applicants by serving as a signal for prevailing working conditions in a particular firm. Inspired by these insights, a growing number of scholars have used this theory to explain the potential benefits that accrue to firms that adopt socially responsible practices. FP significantly improves when the company voluntarily discloses (signals) private information about itself that is credible and appealing to multiple constituents (Peng & Yang, 2014). This actually minimizes uncertainty amongst outsiders.

Based on signaling theory, firms that engage in CSR programmes signal to diverse stakeholders the unobservable characteristics that make the firms altruistically sensitive to social plights by filling institutional voids. If multiple stakeholders consider these unobservable attributes to be valuable, then they may provide crucial premiums to firms that are involved in CSR practices (Jain *et al.*, 2016). As noted by Lys, Naughton and Wang (2015), engaging in CSR elicits positive reaction from employees, customers and suppliers which in turn enhances firms image. Furthermore, firms often use CSR

information as an important signal to investors to demonstrate that they are better than other firms in the market hence attracting additional investments and gaining favourable corporate image (Rahman, 2016). Analogous view is expressed by Huang and Yang (2014) who suggest that engaging in CSR demonstrates the willingness of the firm to allocate reasonable resources to maintain sustainable relationship with key stakeholders which in turn strengthens firm's ability to access crucial stakeholder resources.

Signaling theory plays a significant role in theoretically explaining the positive relationship between CSR, corporate image and FP. Socially responsible actions signal to numerous stakeholders some positive impressions of corporate behaviour and therefore aids in building positive corporate image. In return, favourable corporate image has a positive effect on the FP. Managers as agents by virtue of their position have an incentive to voluntarily undertake CSR practices to signal firm's good actions to different interest groups. Voluntary disclosure of vital information minimizes the potential informational asymmetries between the management and other key stakeholders. Therefore, CSR is viewed as a strategic positive signal that improves FP via positive image capital.

2.2.5 Summary of the Theoretical Literature

Taken together, legitimacy, RBV, stakeholder and signaling theories provide a vital framework for probing the linkages among CSR, corporate image, firm size and performance. Given these theoretical considerations, legitimacy theory is the anchoring theory and provides the foundational bedrock of this study. Legitimacy theory is connected RBV in the sense that legitimacy which is achieved through CSR actions is presumed to be a vital strategic resource that enhances corporate image among diverse stakeholders. RBV recognizes the significance of organizational resources (corporate

image) upon which the firm's competitive clout largely depends on its uniqueness. Based on RBV, corporate image is construed as an important internal strategic resource which is an outcome of engaging in socially responsible actions. In return, favourable corporate image materially contributes to improve FP.

Stakeholder theory extends legitimacy theory by considering organization's-society argument which recognizes a variety of the key stakeholders with conflicting interests. On the flipside, legitimacy theory complements stakeholder theory by not emphasizing only on society's expectations, but also aids in legitimization process; that is ensuring that firm's behaviour is seen to be in congruence with social norms/expectations from a cluster of varied stakeholders in the society.

Furthermore, stakeholder argument is reinforced by synchronizing stakeholder theory and RBV. Stakeholder theory gives credence to stakeholder management and suggests that firms should simultaneously meet the needs of diverse stakeholders who have interest in the firm and are capable of influencing corporate outcomes. Participating in CSR programs is one way of satisfying the needs of numerous stakeholders and this has a positive impact on FP. Stakeholder theory is embedded in RBV since stakeholder management is considered as an important organizational resource that enhance corporate image. Since CSR-FP relationship is mediated by corporate image, these theories are collectively relevant in explaining the theoretical linkage among these variables.

On the other hand, stakeholder theory is strengthened by signaling theory. Signaling theory suggest that CSR activities signal to various stakeholders the positive impressions of the corporate behaviour, hence improving the corporate image. This complements stakeholder theory since the signals send are aimed at satisfying the needs

of the extended web of stakeholders. Moreover, adopting CSR activities is one way in which firms convey (signals) information about their capabilities hence ameliorating the corporate image. Jointly, these theories (legitimacy, RBV, stakeholder and signaling) are directly or indirectly related to each other and should be considered as complementary rather than competing with one another in explaining the relationship among CSR, corporate image, size and FP.

2.3 Empirical Literature

The empirical literature reviews past studies relating to CSR, corporate image, size and FP. The reviewed studies entail global, regional and local empirical studies. In each study, a detailed examination of the objectives of study; how the variables were conceptually measured; the methodology adopted; the findings of the study and finally evaluation of the study is undertaken so as to identify important research gaps.

2.3.1 Corporate Social Responsibility and Firm Performance

A study by Laskar and Maji (2017) focused on the relationship between CSR and firm's performance from 2008–2018 using a data set of 344 listed companies in India. Using content analysis, global reporting initiatives (GRI) framework was adopted as a basis of computing the CSR disclosure scores relating to employees, society and product while firm performance was measured using market to book ratio (MBR). The results based on generalized least square (GLS) model indicate significant and positive impact of CSR on FP which support the tenets of legitimacy theory. However, the study overlooked other critical dimensions of CSR touching on environment, investors, customers and suppliers. Furthermore, this study was carried out in developed markets which are characterized by distinct cultural, economic and regulatory environment and therefore the findings might not be applicable in developing markets.

The intricate link between CSR and corporate profitability was investigated by Han *et al*. (2016) using longitudinal data set of 94 firms listed at Korea stock exchange from 2008–2014. Bloomberg's environmental, social and governance (ESG) disclosure score index was used as a proxy for CSR while FP was operationalized by ROE, MBR and annual stock returns. The study applied random effect panel regression estimation technique and revealed diverse results: with environmental score presenting significant negative association with FP; social score indicating no significant relationship with FP; and finally, governance score revealing a positive link with FP. However, aggregated measures of CSR such as ESG lacks consistency and standardized definition for comparison purposes. This leads to biases since firms might be unwilling to disclose necessary information.

An empirical study by Kamwara *et al*. (2016) explored the influence of CSR on FP using cross-sectional dataset of a sample of 39 firms quoted at NSE. The empirical strategy employed involved the use of descriptive statistics, t-test statistics, chi-square statistics and Pearson correlation as techniques for data analysis. Using CSR on environment, education and infrastructure as well as return on capital employed (ROCE) as indicators for CSR and FP respectively during the year 2010-2014, their findings indicate that CSR has a significant positive influence on both FP and growth of assets of firms listed at NSE. However, the study exclusively relied on accounting based FP measure (ROCE) which has been found to be highly correlated with CSR hence resulting into conflicting findings.

A study by Chebet and Muturi (2018) probed the effect of CSR on organizational performance using a case study on Chemelil and Nzoia sugar factories in Kenya. CSR was operationalized by economic, philanthropic, legal and ethical dimensions while

organizational performance was measured by employee retention, corporate image, customer satisfaction and new product development. Using regression analysis, the individual dimensions of CSR showed a positive and significant relationship with the composite score of organizational performance. However, the study only focused on a case study of the sugar sector hence the findings obtained might not applicable to other industries. In addition, the study ignored the effect of the mediating and moderating variables which play an integral part in explaining CSR-FP relationship.

While employing regression analysis as the principal estimation procedure, Mishra and Suar (2010) examined whether CSR towards the primary stakeholders influences FP using cross-sectional data of a sample of 150 Indian firms. CSR index was developed based on KLD and GRI frameworks where employee, customer, community, supplier, environmental and investor dimensions were aggregated to form a composite score. Performance was measured by non-financial indicators such as market share; workplace relations; market development and cost reduction programs. The findings revealed that improvement in aggregate CSR boost overall FP. Nevertheless, this study was undertaken in characteristically varied context (India) which has a unique institutional, cultural, economic and political setting and therefore the results might not be applicable in developing markets.

Using cross sectional dataset of 4 private banks in India, Priyadarshini and Gomathi (2018) carried out a causal study covering a period of 5 years (2012–2017). To establish the cause and effect relationship between CSR and FP, regression and correlation analysis were employed as the main estimation tools. CSR was proxied by expenditure on community and environmental dimensions while FP was surrogated by net profit margin, ROE, ROA and EPS. Empirical findings show confirms insignificant

relationship between CSR expenditure and FP. However, this study suffers major shortcomings. First, use of CSR expenditure is cumbersome since it considers few dimensions of CSR (community and environment) in pecuniary terms while in reality, CSR is a multifaceted concept with an array of other dimensions such as employee, investor and suppliers. Secondly, this study was carried out in India which is geographically, institutionally, politically, economically and culturally dissimilar to Kenya. The findings therefore may not extend to developing markets.

In contrast, Giannarakis *et al.* (2016) using content analysis technique adopted ESG scores on environment, social and governance as computed by Bloomberg as a proxy for CSR and ROA as a measure of FP. Fixed effect panel data regression model was employed in estimating the extent to which the CSR disclosure affects FP using longitudinal dataset of listed firms on standard and poor 500 during the period 2009–2013. The findings suggested that involvement in CSR initiatives has significant positive effect on FP. This study however suffers some methodological limitations. First, reliance on content analysis is cumbersome since information presented in CSR reports can be different from the actual performance therefore making it difficult to cross check the reliability of the presented data. In addition, measurement agencies such as Bloomberg do not publish the performance measurement criteria.

In the European context, Asatryan and Brezinova (2014) conducted an empirical investigation on the impact of CSR on FP in an airline industry for the period stretching from 2012–2017. Cross-sectional data from a sample of 20 audited financial reports were randomly selected and analyzed using regression estimation technique. ROE and ROA were used as indicators to measure FP while community environment and employee dimensions were used as metrics to construct voluntary CSR disclosure

index. The study established a significant positive relationship between CR and FP. However, use of single industry (airline) as a sample poses contextual and methodological limitations since results may not extent across all the companies in a multi-industry setting.

Likewise, Ansong (2017) documented a significant positive association between weighted CSR index (measured by customer, environment and social dimensions) and profit growth and leverage (indicators of FP) using cross-sectional data of a sample of 423 small and medium size enterprises (SMEs) during 2014–2015 period within Accra metropolis. The study applied partial least square (PLS) analytical approach as an econometric strategy for analyzing data. The results support the view that CSR has a positive significant relationship with FP. However, this study is bivariate in nature; focusing only on CSR and FP. As a result, the major shortcoming of such studies is that the findings can be confidently interpreted as significant correlations and not causal relationship which can better analyzed in presence of mediators and moderators.

Conversely, Kabir and Qayum (2016) found no correlation between CSR expenditure on education, health as well as sports and diverse measures of performance (ROA, ROI, EPS & PER) while using regression and correlation analysis as the principal estimation techniques. Data was collected from a sample of 6 listed Islamic banks in Bangladesh during the period 2010–2014. The findings indicated that CSR significantly and negatively impact of CSR expenditure on FP. Despite multidimensionality of CSR as a concept, the researchers focused only on monetary aspects of CSR and overlooked other non-monetary aspects of CSR such as gender party, fair promotion and fair competition in the market which constitute the foundational bedrock of social responsibility.

Furthermore, small sample sizes not only reduce the power of the study but equally produce false positive results as well as over-estimating the extent of association.

Using cross sectional dataset of 451 listed Chinese firms from 2014 to 2016 as a sample to probe the link between CSR and FP, Mi, Jiang, Tao and Hu (2018) found significant positive correlation between weighted social responsibility rating scores based on DJS evaluation system and ROA. The empirical strategy employed involved application of panel regression as the main econometric model for analyzing data. Nonetheless, this study suffers major drawbacks. To begin with, this study is bivariate in nature in nature and do not take into consideration the effect of control variables such as mediators and moderators which can significantly alter the nature and magnitude of CSR-FP relationship. Moreover, this study was conducted in a developed market which exhibits superior political, economic and regulatory and cultural environment. The findings therefore may not apply in a developing market context.

An explanatory study conducted by Rahman (2016) was aimed at testing the causality between CSR expenditure on social and environmental dimensions and profitability of listed commercial banks in Dhaka stock exchange, Bangladesh. The study used data sourced from annual reports of 15 banks for the year 2015 and utilized ROE, ROA, EPS, net interest margin and cost to income ratio as the proxy indicators for measuring profitability. Multiple regression analysis was used to analyze data while Pearson's correlation coefficient was used to establish the degree of association between the variables. The findings showed that CSR positively impacts profitability. The major limitation of this study stems from the fact that CSR expenditure only capture few dimensions of CSR (environmental and social) and ignores other critical dimensions touching on customer, employees, investors and suppliers.

The relationship between CSR and firm value among 14 mining sectors listed at the Indonesian security exchange during the period 2011-2014 was investigated by Haryono and Iskandar (2015). The researchers employed structural equation model (SEM) as an estimation technique for analyzing data. CSR was measured via weighted disclosure index based on GRI framework with focus being on economic, social and social aspects. Price to book value, Tobin Q and ROE were used as indicators for firm value. Unlike vast of prior empirical findings which indicate positive CSR–FP linkage, the results show that CSR has insignificant effect on firm value. This study however has some limitations. First, measuring CSR using disclosures is often cumbersome since content analysis can only indicate what firms claim to be doing instead of what they are actually doing. Secondly, this study solely relied on market based performance measures which reflect investor's valuation of the FP. Although it is an ideal measure of performance, sole consideration on investor's evaluation may not be sufficient since firms' interact with multiple constituencies. Lastly, financial performance measures do not take into consideration intangible assets such as corporate image.

Using annual reports for the year 2014 of 1,380 listed firms drawn from US Securities and Exchange Commission (SEC), Myskova and Hajeck (2019) applied multiple regressions to analyze the cross-sectional data. The empirical findings showed significant correlation between CSR and FP. The main objective of the study was to examine the nexus between CSR and FP to validate the business case of social responsibilities. Disclosure scores derived from four dimensions (community, environment, employee and human rights) using content analysis were used to proxy CSR while ROE, ROA and Z-score were utilized as the indicators of FP. However, this study was carried out in a developed market set up which unlike transitional economies

has superior economic, political, regulatory and cultural environment. As a result, the findings cannot be extrapolated to developing markets.

An empirical study by Haspari, Yuliandhari and Variza (2019) probed whether financial performance and firm value are capable of improving CSR disclosure while applying fixed effect model based on longitudinal data collected from 8 firms listed at Indonesian stock exchange during the period 2013-2016. In this study, ROA and ROE were used as metrics to capture financial performance while Tobin Q was used to proxy firm value. Moreover, the exogenous variable; CSR was measured by expenditure on the community and environmental factors. The findings indicated a positive relationship between CSR, financial performance and firm value. Nonetheless, divergence in conceptualization of CSR and FP possess some empirical challenges. For instance, use of CSR expenditure to operationalize social performance is restrictive since it only captures the financial aspects of CSR and overlooks other critical non-monetary aspects of CSR such as fair competition and human rights. Furthermore, reliance on accounting based measurers (ROA) has the shortcoming of being historical in nature and equally being susceptible to managerial manipulation.

While focusing on a sample of 20 Nigerian manufacturing firms during the period 2002-2011, Enahoro *et al.* (2013) examined the link between CSR expenditure on environment and FP using annual data sourced from audited reports. Using annual turnover and profit before tax as proxies for FP, descriptive, correlation and ordinary least square (OLS) regression analyses were employed. The results confirmed a positive and significant CSR-FP relationship. Despite these findings, use of reduced sample size accentuates the margin of error and exaggerates the magnitude of association between exogenous and endogenous variables. In addition, use of one-dimensional measures is

theoretically problematic since CSR as a concept is multidimensional in nature. For instance, a particular company may strongly focus on one CSR dimension and neglect the others and this may not reflect the overall social performance of the firm.

To test the validity of signaling theory in the context of CSR initiatives, Widiastuty and Soewarno (2019) investigated the nexus between CSR expenditure in the form of charity, together with accounting based performance measure (ROA) using longitudinal data gathered from 53 quoted firms at Indonesian securities exchange. Using random effect regression panel data model, empirical findings indicated that pecuniary expenditures in form of CSR is merely an action aimed at fulfilling charity work without expecting anything in return. Indeed, they concluded that CSR expenditures are not essential signals for future corporate performance. However, this study is bivariate in nature and therefore it cannot be applied in testing nonlinear associations.

Motivated by CSR-FP heterogeneous findings, Jaiswal, Rastogi and Banerjee (2019) carried out an empirical analysis on the role of CSR on performance of Indian banks with focus being on a case study of Axis bank of India. Cross-sectional data was sourced from annual reports in a span of 10 years (2008-2016) and was analyzed using regression and Pearson's correlation. Annual expenditure on poverty alleviation, medical care, education and health were adopted as indicators of CSR while ROA and ROE represented performance. The results suggested that CSR expenditures are significantly associated with increased revenues (performance). However, case studies have some methodological limitations. These studies are faulted for lack of rigor; generalization of results is limited; it cannot be replicated hence it is incapable of being corroborated; it is susceptible to research bias; it is prone to errors of memory and judgment and finally it poses serious concerns in regards to ethical issues.

A theoretical framework based on stakeholder theory was proposed by Chen and Wang (2017) to test the interaction between CSR and FP of selected Chinese companies while utilizing data gathered from 2017–2018. The researchers conducted multiple linear regression using six CSR attributes (employee, customer, community, preponderant stakeholder, partners and managing diversity) and ROA and return on sales (ROS) as measures of FP. The findings revealed that company's CSR programs are capable of improving the FP of the current year, have significant influence on their FP for the next year and vice versa. Due to bivariate nature of the study, the study suffers some conceptual shortcomings. Empirical evidence suggests that the relationship between CSR and FP is not actually direct, but it is influenced by a number of external factors (control variables) which intervene and moderate the hypothesized association.

A study by Nyeadi, Ibrahim and Sare (2018) empirically explored the impact of CSR on FP using a sample of 156 largest listed firms at Johannesburg stock exchange while utilizing a balanced panel data for the period 2011-2013. ESG dimensions of social performance were used as metrics for surrogating CSR while ROA and Tobin Q were employed as indicators of FP. The empirical strategy employed by the researcher involved the use of panel-correction standard error (PSCE) estimation technique as well as pooled ordinary least squares (OLS). The results revealed that governance dimension positively impacts FP with no evidence of any association between environmental and social components on FP. However, the findings should be interpreted with caution owing to some limitations. First, despite this study being longitudinal in nature, use of 3 year study period is a short time considering that it employs panel data. Secondly, use of reduced sizes is problematic since findings cannot be realistically used for generalization purposes.

To test the interaction between CSR and FP, Chou, Chang, Durcy and Yan (2017) utilized a cross-sectional dataset of 85 Taiwanese firms gathered from CSR Hub during the year 2007-2010. CSR index was computed using four attributes: environment, employees, community and governance. On the other hand, PER was used as an indicator for FP. The study documented diverse findings. First, the study documented a positive and significant CSR-FP relationship. Secondly, high CSR score firms outperformed low score counterparts. Finally, governance dimension was found to have more significant and positive effect on PER in comparison to other dimensions. However, this study solely adopted market based measures of performance and ignored non-financial aspects of FP. In addition, this study omitted essential control variables which play a critical role in moderating and mediating CSR-FP relationship.

Using a sample of 19 manufacturing firms listed at Indonesian stock exchange during the period 2015-2018, Wardhani, Awaluddin and Reniati (2018) tested the hypothesis on the influence of CSR on financial performance of stock returns. CSR disclosure in form of social and environmental dimensions was used to measure social performance. Financial performance was surrogated by EPS, ROE and ROI while an expected return was used as an indicator for stock returns. The findings revealed that financial performance partially did not affect stock returns while CSR partially affected stock returns. However, this study utilized a small sample size as well as a single industry and therefore the findings cannot be used for universal generalization.

An empirical study on the effect of CSR on stock prices was conducted by Zacchaeus, Oluwagbemiga and Olugbenga (2014) using cross-sectional data of a sample of 30 listed Nigerian manufacturing firms for the fiscal year 2008-2012. Using simple ordinary least squares (OLS) regression model, the study revealed insignificant

association between CSR and stock prices. To measure CSR, community, environmental and employment dimensions were aggregated to form a composite index while market price per share (MPS) was used to proxy stock prices. However, this study is bivariate in nature and omitted control variables which play a pivotal role in delineating CSR-FP relationship.

Dissimilar findings are documented by Chen and Lee (2017) who concluded that investment in CSR does not enhance the firm value until it exceeds the value transition threshold which rarely happens. The main objective of the study was to establish the influence of CSR on the value of the firm. To test the hypothesis, the study employed CSR index based on ESG dimensions and Tobin Q as a measure of firm value respectively. Panel smooth transition regression (PSTR) model was used to empirically analyze 254 quoted Taiwanese companies from 2010–2012. This study was however carried out in a developed market set up which is characterized by different cultural, political, institutional and economic environment which may result in variation of study findings owing to diverse contexts.

From the stakeholder perspective, Oh, Hong and Hwang (2017) explored both traditional and strategic CSR relationships with FP on the basis of confidence in effectiveness of social performance. To verify the hypothesis, a survey was conducted from 28th to 30th October 2015 via e-mail where 213 participants out of 1409 respondents who were conversant with Korean CSR activities, were used as valid data. CSR was measured by economic, ethical legal, charitable and social innovative dimensions. To augment CSR further, CSR motivation; research and development and technology commercialization capacity were used as additional indicators for social performance. FP was operationalized by revenue, profit and growth rate. The data

gathered was analyzed using structural equation model (SEM). The study revealed that CSR was positively correlated with FP. However, cultural characteristics, economic fundamental, political establishments and institutional frameworks vary between developed and emerging markets and therefore the findings of this study cannot be extended to developing countries such as Kenya.

Elsewhere, Manrique and Carmen (2017) analyzed the effect of corporate environmental performance on FP both in developed and developing economies. To test the hypothesis, data sourced from large firms was used covering the period 2008-2015. The sample adopted involved 2,898 large firms. CSR was measured by sector-neutral index based on ESG framework. FP was surrogated by both accounting based (ROA) and market based (Tobin Q) measures. Based on panel regression model, the research outcomes suggested that adoption of sound environmental practices significantly and positively influence FP both in developed and developing countries. Nonetheless, this influence is relatively stronger for companies situated in developing countries in comparison to those located in developed countries. However, use of single-dimensional measures such as environmental dimension is limiting in the sense that CSR as a construct is multidimensional in nature with an array of dimensions.

While using cross-sectional data of 30 large listed firms drawn from diverse sectors in Nigerian stock exchange during the period 2011-2014, Okegbe and Chinedu (2016) empirically tested the correlation between CSR disclosure and FP. The study adopted ex-post facto research design where multiple regression models were applied as the main estimation technique. The results revealed a positive association between CSR (proxied by environment, social, employees and customer dimension) and FP (measured by ROA, ROE & NPM). Nevertheless, this study took into account only

large companies and the results obtained therefore cannot be extended to small firms. In addition, the study omitted control variables which are important in demystifying CSR-FP relationship.

Using regression and correlation analysis as the primary estimation techniques, Moses, Jatau, Ande and Okwoli (2014) found a positive insignificant relationship between EPS and CSR disclosure index using a sample of 36 listed firms at the Nigerian stock exchange during the period 2009-2012. The main objective of this study was to examine the link between CSR and FP. CSR was proxied by disclosure index computed using modified 25-themes drawn from GRI framework while FP was operationalized via EPS. However, omission of relevant control variables increases the possibility of obtaining biased estimations which can often lead to inconclusive findings. Likewise, many developing and emerging countries such as Nigeria have an institutional framework characterized by weaker regulatory environment, cognitive and normative pressures in comparison with developed markets.

The impact of CSR on FP was investigated by Resmi, Begum and Hassan (2018) using a sample of 4 selected agribusiness industries in Bangladesh during the period 2015-2017. The independent variable (CSR) was represented by investment in social, environmental, employee, and customer dimensions while EPS, ROA, net income and ROE were used as the principal indicators of the dependent variable (FP). The estimation method adopted involved the application of regression and correlation analysis. Furthermore, purposive sampling technique and relational research design were utilized in this study. The findings indicated that companies that significantly embrace CSR practices post improved FP. Nonetheless, this study used a small sample

of only 4 firms in a single industry (agribusiness) and findings therefore may not be extended to firms in other industries.

In order to test the relationship between "doing well" (profitability) and "doing good" (CSR), Hategan, Sirghi, Curea-Pitorac and Visile-Petru (2018) utilized panel data gathered from annual financial reports of 53 firms listed at Bucharest stock exchange during the period 2011-2016. The indicators used to operationalize profitability included financial indicators (net profit and impairment), accounting indicators (total assets and total liabilities), and market indicators (market capitalization and dividends). CSR was measured using expenditure on corporate giving; health and safety; employee training and waste management. The empirical strategy applied consisted of feasible generalized least squares (FGLS) and logistic regressions to identify the correlation between profit and the decision to undertake CSR activities. The results revealed that firms which implement CSR activities to a greater extent are more profitable. Nevertheless, this study was carried out in a developed market set up with elaborate economic, cultural and political dynamics. As a result, the findings may not apply in developing markets.

A conceptual model focusing on the effect of CSR on FP in Kano metropolis, Nigeria was developed by Ibrahim and Bombale (2016). The study utilized a sample of 5 selected Nigerian banks during the period 2009-2014. Content analysis of annual reports was used in developing CSR disclosure scores using indicators such as business practices, international issues, environmental performance, employee relations, workplace diversity and community related issues. On the other hand, NPM and EPS were used as indicators for FP. Regression analysis was employed as the main econometric strategy in modeling CSR-FP linkage. The results showed that CSR

positively impacts FP. However, use of small sample sizes hinders generalization of findings since the results cannot be extended to other firms especially those from different sectors of the economy.

While applying pooled regression model to probe the impact of CSR on FP, Bagh, Khan, Azad, Saddique and Khan (2017) utilized cross-sectional dataset of 30 commercial banks listed at Pakistani stock exchange based on their market capitalization during the period 2006-2015. Empirical findings documented a positive and significant relationship between CSR and FP. CSR was measured by investment in social welfare, natural catastrophes, health and education dimensions. ROA, ROE and EPS were used as indicators for FP. However, this study exclusively relied on monetary aspects of CSR while in reality, CSR is a multifaceted construct comprising of both financial and non-financial dimensions hence the outcomes of this study cannot be fully relied upon for generalization purposes.

In their empirical works, Folajin, Ibitoye and Dusin (2014) investigated the correlation between CSR expenditure on customers, employees as well as community and profit after tax of united bank of Africa for the period 2006-2012.The objective of this study was to investigate the interaction between CSR and FP using a case study. Ordinary least squares (OLS) regression model was applied as the primary econometric model for analyzing data. The results showed that in the short run, CSR has an inverse effect on FP while in the long run; positive CSR-FP relationship is noted. Nevertheless, single case analyses have however been subject to number of limitations. First, the most common criticism is that it is difficult to generalize results to a wider population. Secondly, case studies are often prone to researcher bias.

A study by Tuppura *et al.* (2016) employed fixed effect estimator and Granger causality to analyze the nexus between CSR and FP in the food, energy and forest industries in United States of America. The longitudinal data integrated both CSR and FP metrics during the period 1991-2009. ESG was used to measure for CSR while ROA and market capitalization were applied as indicators for FP. The outcomes of this study provide sufficient evidence of bidirectional causality between CSR and FP in the energy, clothing and forest industries, but CSR does not Granger-cause FP. However, this study suffers some serious shortcomings. To begin with, the study period (1991-2011) is a long time and industries alongside CSR practices might have evolved over the period. In addition, the primary focus of this study was causal relationship rather than CSR practices and their feasibility.

In a study using panel data in European context, Dobra, Stanila and Brad (2015) re-examined the effect of environmental and social aspects of CSR on ROA and ROE of 30 Romanian listed firms while employing a 4 year panel (2010-2013). To model CSR-FP nexus, fixed effect model was applied after carrying out extensive Hausman test. The findings point out that generally, CSR positively impacts FP. Nevertheless, this study exhibited inherent limitations. First, in Romania, there is lack of standardized way of reporting social and environmental indicators and this can lead into biased estimations. Secondly, this study used a shorter timeframe (4 years) despite this study being longitudinal in nature. Lastly, there was unobserved heterogeneity from the gathered data. There is sufficient evidence that when heterogeneity is controlled through application of dynamic panel data approach, no influence among CSR and FP indicators can be identified.

2.3.2 Corporate Social Responsibility, Corporate Image and Firm Performance

The impact of CSR intensity on corporate image, reputation and profitability was investigated by Pradhan (2016) using a data set from 2011–2013 while employing a modified version of Neville's (2005) model and structural equation model (SEM) to test the proposed linkage using a sample set of 74 Indian firms. In this study, CSR was surrogated by CSR expenditure, image and reputation was proxied by advertising expenditure while FP was measured by ROCE. The findings of this study indicated the mediating effect of corporate image on CSR-FP relationship. However, this study has a number of shortcomings. First, use of advertising expenditure to proxy corporate image is questionable since it does not necessarily translate into good image. Secondly, use of CSR expenditure as a measure of CSR is cumbersome since it does not consider all the dimension of CSR. Lastly, use of a study timeframe of three years presents a serious methodological challenge since the findings cannot be authoritatively used to make generalizations due to paucity of data.

Using cross-sectional data set of a sample of 2,932 firms in Australia from 2009 to 2014, Taghian *et al*. (2015) examined the stakeholder approach to CSR, image and performance of businesses. In this study, CSR was operationalized by shareholder, community and employee dimensions; FP was measured by changes in market share and profitability while image was surrogated by Fortune's reputation quotient index. The study used structural equation model (SEM) to evaluate the latent variables. The results reveal that members of the public and employees are perceived to be influential stakeholder groups in corporate performance decision making. In addition, there is a positive association between CSR and corporate image, which subsequently influences the market share, but not corporate influence. Despite these findings, the study did not

take into account the moderating variables like firm size which plays a key role in explaining the strength and the nature of the relationship between CSR and FP.

A study by Yang *et al*. (2017) conducted from 2012–2016 using partial least square-structural equation model (PLS-SEM) estimation technique to test hypothesis was aimed at examining whether corporate image mediates the relationship between CSR and FP using a data set of a sample of 256 SME's in China. CSR was classified into internal and external variants while performance was investigated from corporate, financial and operational perspective. The study documents that internal CSR directly affects performance while image mediates the link between external CSR and performance. However, this study was conducted in a developed market set up which is economically superior, highly regulated and culturally distinct and the results might not apply in developing markets.

In Ghana, Agyemang and Ansong (2016) conducted an empirical study on the mediating role of corporate image (proxied by quality of staff, management and products) on the interaction between CSR dimensions (employees, customers, community and environment) and FP measured by subjective measures consisting of growth in sales and profit. To achieve this objective, the researchers utilized primary data from a sample of 424 SMEs within Accra metropolis during the period 2014-2015 while applying partial least square (PLS) estimation technique as an econometric strategy for data analysis. The findings provided evidence that improved CSR practices positively enhances corporate image which in turn translates into improved FP. Despite existence of an array of FP metrics, this study wholly relied on non-financial performance measures which are subjective in nature and overlooked traditional financial measures whose chief advantage is their contemporariness and objectivity.

In another related study focusing on 281 Taiwanese construction firms during the period 2010-2011, Huang and Lien (2012) analyzed the influence of CSR on performance while using corporate image as a mediating variable. A measurement scale was developed where factor analysis was undertaken to extract CSR dimensions (social participation, resource conservation and pollution prevention). Balanced score card (BSC) metrics were used as indicators for FP while quality of employees and emotional appeal were employed as measures of corporate image. Based on hierarchical regressions, Baron and Kenny (1986) model was used to test mediation. The study established that CSR positively influence FP via corporate image. However, single industry analyses hinder generalization of findings since results cannot be authoritatively extrapolated to other industries which are contextually varied.

The mediating role of corporate image on the nexus between CSR and FP was investigated by Almagir and Uddin (2017). CSR was proxied by environmental, social, community and employee dimensions; corporate image was surrogated by customer perception and professionalism; while performance was measured by ROA and ROE. The econometric strategy adopted in this study involved the use of structural equation model (SEM) and path analysis (stepwise regressions) popularized by Boron and Kenny (1986). Empirical results based on cross-sectional data of 125 firms in Bangladesh from the year 2013-2016 indicate that CSR positively influences corporate image which eventually leads to improved performance. However, this study relied exclusively on financial measures of performance (ROA, ROE) despite of the existence of other non-financial performance measures which can add more rigor to the study.

In their empirical review, Sindhu and Arif (2017) examined the mediating role of corporate image on the CSR–FP relationship using cross-sectional data of a sample of 50 Pakistani banks from the year 2015-2016. Structural equation model (SEM) estimation technique was applied to test the linkage with the aid of the primary data collected using a developed measurement of scale. The authors developed a CSR index based on ESG dimensions, Fortune image index was used to proxy corporate image while non-financial performance measures derived from balanced score card (BSC) were used as indicators for FP. The findings documented that CSR significantly influences FP and this relation is partially moderated by corporate image However, this study solely relied on non-financial performance measures despite existence of financial measures which provide great objectivity. In addition, measurement agencies such as Fortune rankings do not publish their performance measurement criteria

In the developing market context, Antonio *et al.* (2019) investigated CSR orientation on diverse measures of FP. CSR was captured by employee, customer, partners, environment and competition dimensions; FP was measured by profitability and increase in export sales; image was proxied by innovation, efficiency and attractiveness of the firm while stakeholders' satisfaction was captured by customer, supplier and employee fulfillment. To empirically test the proposed econometric model, partial least square-structural equation model (PLS-SEM) estimation technique was applied using cross-sectional data of 107 Agricultural-food companies. The results indicated the CSR positively and significantly affect performance via corporate image as well as stakeholder satisfaction. Nonetheless, this study ignored other important control variables such as firm size which plays a critical role in moderating CSR-FP relationship.

Using structural equation model (SEM) as an estimation technique to test the hypothesis, Alrubaiee *et al.* (2016) utilized data set drawn from a sample of 21 Jordanian hospitals during the period February to June 2015. The objective of this study was to probe the mediating effect of corporate image and customer value on the CSR marketing performance. To measure these variables, diverse constructs were developed using multi-item scale adopted from prior validated empirical works to form indices. CSR was measured by economic, social, discretionary and ethical dimensions. Customer value was proxied by comfort and welfare; customer satisfaction was surrogated by quality of services and reliability of services. Corporate image indicators included professionalism, popularity and state of physical facilities. Finally, marketing performance was surrogated by customer loyalty; customer retention and brand equity. Empirical findings indicated that CSR enhances FP. Furthermore, corporate image and customer value partially mediated CSR–FP linkage. However, this study solely relied on subjective measures of performance (non-financial) and ignored financial aspects of FP which objectively measure performance.

A cross-sectional study conducted by Hafez (2017) was aimed at measuring the impact of CSR practices on brand performance while using corporate image and brand awareness as intervening variables. Variables were measured using multi-scale indices developed from primary data. CSR was proxied by social and environmental dimension; brand awareness was measured by firm recognition and symbols/logos; corporate image was captured by overall impression of the company while brand performance was measured by product uniqueness and preference. Structural equation model (SEM) was employed to test the proposed hypothesis using a sample of 201 private and public banks clients. The findings showed that successful CSR practices enhances corporate image and brand awareness in the minds of customers which

eventually contribute to building of strong brand performance. Despite these findings, the study disregarded other control variables such as size, leverage and age of the firm among others which play an important role in moderating the relationship between CSR and brand performance.

Moreover, a study by Famiyeh, Kwarteng and Dadzie (2016) found a positive correlation between stakeholder weighted CSR index measured by social and environmental dimensions; corporate image index was proxied by product/service quality, management performance as well as firm attractiveness; and composite performance index was constructed using non-financial measures (market share and sales growth).Cross-sectional data of 165 firms in Accra Ghana with the year of observation being 2014-2015 was employed in this study. Partial least square-structural equation model (PLS-SEM) estimation technique was used to test the nexus between CSR and corporate image while using performance as the mediating variable. The findings revealed that CSR was positively related with image and performance. However, this study wholly focused on non-financial metrics of performance which are subjective and overlooked financial metrics which provide objective analysis of FP.

Using ordinary least squares (OLS) and structural equation models, Lee, Kim and Roh (2019) examined the influence of modified CSR pyramid on corporate image and the moderating role of customer experience on performance (measured by customer loyalty) in an airline industry. CSR, image and customer experience were measured by composite indices developed from multi-scale set of 36 items that captured various dimensions via a questionnaire during the year 2018. The findings suggested that CSR was positively associated with FP. Furthermore, image and customer experience mediated and moderated CSR-FP linkage respectively. However, this study was carried

out in a developed market setting which is institutionally, economically, culturally and politically advanced compared to transitional economies. Consequently, the findings may not be applicable in the local context.

In a related study, Zainab *et al.* (2018) used an extensive data set which constituted 240 customers in the banking sector in Bahrain over a period of two years (2014-2016) to explore the linkage between CSR, image and FP. CSR metrics were classified into legal, economic, ethical and philanthropic components; corporate image indicators included customer loyalty and brand awareness while performance was measured by ROA. Regression analysis was applied in testing the research hypothesis. The findings revealed that CSR activities strengthens corporate image which intern boosts FP. However, this study utterly depended on financial measures of performance which are inherently historical in nature, externally focused, lagging performance indicators and do not offer guidance on firm strategic choices.

An empirical inquiry was undertaken by Le (2020) with the aim of evaluating the vital role of CSR on performance of SMEs' by examining the mediating influence of corporate image, customer loyalty and corporate reputation in an emerging country context. To estimate the linkage between these four variables, PLS-SEM estimation technique was applied using cross-sectional dataset drawn from a sample of 482 participants comprising of managers, experts and top executives covering the period 2020 to 2021. CSR was operationalized using customer, social, environmental and employee dimensions; corporate image was represented by firm's overall impression, leadership and vision; customer loyalty was proxied by customer repurchase intentions and clients' referrals; corporate reputation was measured by professionalism, firm stability and the firm's standing while FP was captured by ROA, ROS and market

share. The findings revealed that corporate image, customer loyalty and corporate reputation mediated the association between CSR and FP. However, this study that was conducted in a fairly developed market (Vietnam) and findings may not apply locally owing to disparities in economic, regulatory, environmental and cultural settings. In addition, this study overlooked the influence of moderators which play an essential role is explaining CSR-FP relationship.

While empirically probing both the direct and indirect effects of CSR on FP, and more specifically the mediating effect of corporate image, Fourati and Dammak (2021) employed a sample of 3,275 quoted companies covering the period 2009–2017 drawn from 25 countries located at Africa, Asia, Europe, North and South America. CSR was delineated by economic, environmental, social and governance score; corporate image was operationalized by reputation index while FP was represented by ROE. While utilizing OLS estimation techniques, CSR was found to have a positive direct influence on FP. Furthermore, corporate image partially mediated CR-FP relationship. However, the study used a shorter study time period owing to paucity of empirical data leading to elimination of quite a number of countries thus impeding the generalization of the study findings.

2.3.3 Corporate Social Responsibility, Firm Size and Firm Performance

Based on firm-level evidence from a sample of Taiwanese listed firms during the period 2010-2014, Hou (2017) investigated the relationship between CSR and sustainable financial performance. Using social performance awards as an indicator of CSR and Tobin Q as a measure of FP, firm characteristics was employed as a moderating variable. Size, ownership, age, family business and leverage were used as indicators of firm characteristics. The empirical results based on fixed effect regressions showed that

there was a significant positive linkage between CSR an FP. Furthermore, size, ownership, family business and leverage individually moderated CSR-FP relationship since increased levels of these indicators augmented CSR-FP relationship except family business which exhibited buffering interaction. However, this study overlooked the meditating variable, which play an important role in explaining the indirect CSR-FP relationship. Moreover, this study exclusively relied on financial metrics and ignored the non-financial metrics which provides a closer link to long-term organizational strategies.

A study conducted by Cui, Liang and Lu (2013) investigated the relationship between CSR commitment and sales performance with the size moderating the hypothesized relationship. The study relied on cross-sectional dataset gathered from a sample of 630 CEOs' of private firms in China. CSR commitment index developed using six CSR dimensions was used to measure social performance. Sales performance was operationalized by sales growth while the number of employees was used to proxy firm size. Using OLS estimation technique, the empirical findings established that CSR commitment was significantly negatively associated with the sales performance. Furthermore, size moderated CSR-FP relationship as the prior negative relationship became more positive for larger firms thus suggesting moderating effects. However, since the sample used was exclusively drawn from private firms, the findings may not be generated to state owned firms. Furthermore, the study primarily focused on sales growth as a measure of performance which is largely as short term performance measure.

To probe whether size matters in CSR-FP relationship, Youn, Hua and Lee (2015) carried out an empirical study using a two-way fixed effect model as the principal estimation technique. The longitudinal data employed was unbalanced panel data consisting of a sample of 261 firms for the period spanning from 1991 to 2011 which was drawn from the hospitality industry. KLD index, total revenue and Tobin Q were used as indicators of CSR, size and FP respectively. The results revealed a significant positive relationship between CSR and FP. Furthermore, the relationship between CSR and FP strengthened as the size of the firm increases thus confirming synergistic moderation effect. Nonetheless, this study was exclusively restricted to hospitality industry and findings may not therefore extend across all industries owing to diverse institutional environments.

Using the Partial Least Square (PLS)-Structural Equation Model (SEM) estimation technique based on dataset drawn from a sample of 279 Spanish companies, Pablo, Benito and Juan (2019) examined the moderating effect of firm size on the relationship between CSR and economic performance. To measure CSR, GRI framework was adopted where social, economic and environmental indicators were aggregated to form social performance index. On the other hand, firm size was operationalized by the number of employees and sales turnover while performance was measured by the net operating income. Empirical results confirmed a positive significant influence of CSR on economic performance. Moreover, the larger, the firm, the stronger the CSR-FP relationship. From the findings, it is evident that the study relied exclusively on accounting measures of FP (net operating income) which is historical in nature, susceptible to management manipulation and also largely depends on variation in accounting procedures.

While investigating as to whether size and age mater on the relationship between CSR and value of the firm, D'Amato and Falivena (2019) carried an empirical study using a panel dataset of 252 listed from in the Western Europe over a period of 10 years (2008-2018). The estimation result based on fixed effect model showed that the link between CSR and value of the firm was significantly negative when small and/or young firms are considered and vice versa for larger firms hence confirming moderation effects. Tobin Q, MBV ratio and stock price returns were used to measure firm value while CSR was proxied by DJSI social performance index. Furthermore, firm size was measured by total assets while the number of years in operation was employed as an indicator for age of the firm. However, the current study ignored mediating variables which explain the indirect link between CSR and FP.

An empirical investigation using PLS estimation technique was conducted by Devie, Liman, Tarigan and Jie (2018) using a sample of 40 listed firms with years of observation from 2008- 2016. The objective of the study was to probe the estimated effect of CSR and FP in the Indonesian natural resource sector while using size, leverage and age to moderate the hypothesized relationship. To measure these variables, ROE, NPM, EPS and Tobin Q were used as the indicators of FP while CSR was measured by KLD index. On the other hand, total assets, total liabilities over total assets and ratio of the net value of fixed assets to gross value of fixed assets were used to proxy size, leverage and age respectively. The empirical findings suggest that CSR significantly and positively predicts FP while varying the levels of size, leverage and age of the firm had no significant effect on the strength of CSR-FP relationship. However, the empirical study solely relied on natural resource industry and more so listed companies. As a result, the findings might not be applicable to other sectors of the economy and more specifically the private sector. In addition, use of smaller sample

size tends to overestimate the magnitude of variable association hence giving false results.

Using dynamic regression model estimation technique, Oh and Park (2015) probed the association between CSR and FP of 294 companies from the year 2004–2010 in Korean stock exchange. ROA and ROE were used to proxy performance while Korea economic justice institute (KEJI) index was used to measure CSR. To minimize endogeneity problems arising even after using CSR index, they employed general method of moments (GMM) estimator on dynamic panel regression model while employing firm size as the moderator which was proxied by market capitalization. The findings suggest that CSR has a significant positive effect on profitability thus validating the stakeholder theory while increase in size further enhanced the link between CSR and FP. However, the study was conducted in a developed market and the findings therefore cannot be extrapolated to developing markets owing to variation in regulatory and cultural environments.

An empirical study by Nag and Bhattacharyya (2016) examined CSR categorized into employee, customers, social, environmental activities of companies and its linkage to performance using both accounting (ROA) and market (PER) measures of performance. The study examined annual reports of a sample of 30 companies belonging to benchmark of India's national securities exchange (NSE) while tracking these reports for evidence of CSR related activities from 2007 to 2011. The study employed content analysis to study CSR disclosure indices. The nexus of these indices with FP was explored via pooled regression model after provisioning for firm size (measured by net sales) as a moderating variable. The study revealed that CSR reporting had a positive insignificant impact on performance in the short run but environmental

oriented CSR reporting was negatively related to PER. As the size of the firms increased link between CSR and FP became stronger significantly. Nevertheless, use of content analysis is susceptible to researcher's bias, time consuming, and inaccurate codding can invalidate findings in the context of complex textual analysis. In addition, availability, authenticity and credibility of documents are usually a challenge in text analysis.

Using longitudinal panel dataset of 23 listed non-financial service firms in Nigeria for the period 2008-2017, Ibrahim and Hamid (2019) examined the impact of CSR on FP. CSR spending on education, community and sports was used to measure social investments; ROA was used to proxy FP; firm size was captured by total assets while leverage was operationalized by debt to equity ratio. The data collected from annual reports was analyzed using correlation, descriptive statistics and general least square (GLS) To choose the suitable panel data estimation technique, Hausman specification were conducted to validate the model. The findings indicated a significant positive CSR–FP relationship. Moreover, increased levels of size and leverage were found to have buffering moderation effect on the relationship between CSR and FP. Nonetheless, the study ignored non-pecuniary aspects of CSR such as gender parity, ethnic balance and fair promotion practices which constitute significant part of CSR activities.

In contrast, Tyagi and Sharma (2013) re-examined the nexus between corporate social performance and FP in the Indian context based on good management theory. In this study, standard and poor's ESG 500 India index was used as a proxy of corporate social performance while both accounting (ROA and ROCE) and market-based measures (EPS and MPS) were used to measure FP. In addition, market capitalization was used as an indicator for firm size. Panel data drawn from 297 firms during the period 2005-2011 was used to analyze data while employing random effect feasible generalized least

square (FGLS) estimation technique. The findings exhibited a modest significant negative CSP-FP relationship while increased firm size marginally and insignificantly enhanced CSR-FP linkage. Nonetheless, this study was conducted in a developed market which has superior economic, political, social and institutional environment and therefore findings cannot automatically be extrapolated to developing markets.

Likewise, Mansaray and Brima (2017) evaluated the impact of CSR on performance of firms in Africa using a company size as a moderating variable. A total of 158 listed firms were selected from 6 African countries. CSR disclosure index based on environmental, social and governance dimension was computed using content analysis. ROA and ROE were employed as disaggregated indicators of FP whereas sales turnover was used to measure firm size. Fixed effect regression model was applied using panel data for a period of 11 years (2005-2015). Empirical findings revealed that CSR positively affects FP both in the short and in the long run while when firms become bigger, CSR-FP relationship significantly strengthens. However, use of cross country set of data to analyze CSR and FP has been criticized. This is because institutions and cultures vary across states and there is difficulty in controlling these factors in empirical modeling. Therefore, unobserved heterogeneity among observation units can be mitigated by use of single country analysis. In As a result, the findings cannot be generalized to the entire continent of Africa due to huge cross-country differences.

While using size and leverage to moderate the relationship between CSR disclosure and FP of listed consumer goods firms in Nigeria, Isa and Jamilumadaki (2017) utilized data from annual reports drawn from 15 companies for the period 2005-2014. Ordinary least square (OLS) and general least square (GLS) models were applied as econometric estimation tools to test the research hypothesis. CSR disclosure index was developed

using a checklist of 19 items relating to four themes (employee, community, environmental and product information). Moreover, ROA, ROE, EPS and Tobin Q were adopted as indicators of FP. The moderating variables (size and leverage) were measured by total assets and ratio of total liability over total equity respectively. The findings showed a negative significant relationship between CSR and accounting based measures (ROA, ROE) while EPS and Tobin Q on the contrary suggested a positive significant relationship with CSR. On the other hand, the relationship between CSR and FP become marginally stronger although insignificantly as the firms became bigger and leverage levels increased. However, small sample sizes reduce the confidence level of the study; increases margin of error; and tend to over-estimate the magnitude of variable association which can render the study meaningless.

An empirical investigation by Hirigoyen and Poulain-Rehm (2015) examined the causal relationship between various dimensions of CSR (social commitment, human rights, employees, governance and market behavior) and diverse FP measures (ROE, ROA and MBR) while integrating firm size, financial debt and industry as moderating variables. The moderators were measured using log of assets; net debt divided by shareholders' equity and industrial dummy variable respectively. The study was based on a sample of 329 listed firms in three geographical regions, (Europe, USA and Asia Pacific) during the year 2009-2010. Granger causality test and multiple regression models were used to explore the hypothesized relationships. The findings based on the data gathered from Vigeo database not only revealed that greater CSR activities does not lead into better FP, but also that FP negatively impacts CSR. Also, increased levels firm size and financial debt did not significantly enhanced CSR–FP relationship. However, use of the cross-country sets of data to investigate CSR-FP relationship has

been criticized since regulatory, economic, political and cultural environments differ across states making it difficult to control these factors in empirical modeling.

During the period 2010–2017, Chakroun, Salhi and Jarboui (2019) examined the impact of international organization for standardization (ISO) 26000 CSR standard adoptions on FP with evidence from a sample of 311 French firms listed at Euronext Paris. They incorporated firm size as a moderating variable which was measured by total assets. Corporate governance, human rights, labour relations, fair operating practices, environment, consumer issues and community involvement were aggregated to form a composite CSR index while ROA and ROE and marris ratio were used as indicators for FP. Based on panel data estimated via general least square (GLS) technique, the study revealed that CSR had a significant positive impact on FP. Furthermore, as the firm became bigger, the relationship between CSR and FP became significantly stronger. However, the study relied only on accounting performance based measures and there is evidence that CSR is highly correlated with accounting measures, therefore jeopardizing the statistical validity of findings.

On the basis of behavioral and prospect theories of the firm, Deng and Long (2019) investigated how CSR programs respond to underperformance in the past and in the future using comprehensive dataset of 10,280 firm year observations of selected listed Chinese firms from 2011-2016. The results suggested that underperformance in the past is more likely to encourage companies to engage more in CSR schemes while probable future underperformance is likely to encourage firms to engage less in CSR practices. The study applied panel logit model and general least squares (GLS) model as estimation techniques. CSR was proxied by disclosure index consisting of social, environmental and governance dimensions while performance was captured by ROA.

The moderating variables employed in this study included age and size of the firm which were surrogated by the number of years and log of assets respectively. Empirical findings also revealed that when firms become older and bigger in size, the estimated influence of CSR on FP becomes stronger. However, this study exclusively relied on accounting based performance measures which are historical in nature, prone to managerial manipulation and lacks strategic focus. In addition, conceptualizing CSR via disclosures is limiting since it focuses on the amount and number of social reporting rather than qualitative attributes of CSR.

An empirical study was conducted by Hossain, Chowdhury, Evans and Lema (2015) with an aim of investigating the relation between CSR and FP using data gathered from annual reports from a sample of 131 companies, listed at Dhaka stock exchange during the period 2008-2012. The study used size, age and industry as the moderating variables. Disclosure scores on governance, workplace, product and environment were aggregated to form a composite CSR disclosure index while ROE, ROA and Tobin Q were used as metrics for FP. The findings, based on regression analysis model indicated a positive and significant CSR-FP relationship with accounting measures (ROA and ROE), but an insignificant relationship while using the market based measures (Tobin Q). With exception of age (proxied by number of years), size (measured by market value of equity) and industry dummies were found to significantly enhance CSR-FP relationship based on their increased levels and nature respectively. However, the CSR performance index developed does not capture all the relevant dimensions of CSR and the judgment criteria used in scoring is subjective. In addition, the findings cannot be extrapolated to developing markets since vast of these countries have no laws that makes it mandatory for firms to disclose their CSR practices.

The effect of CSR disclosure on FP was investigated by Bhuyan, Lodh and Perera (2017) using a dataset of 200 firms listed at Dhaka stock exchange during the period 2011-2014. Weighted CSR disclosure index was constructed using governance, employee, customer and community dimensions. FP was measured on the basis of three indicators, namely: ROA, Tobin Q and market capitalization. CSR-FP association was moderated by size, leverage, board size and the industry which were measured by log of total assets; debt to equity ratio; log of total number of board members and dummy variable respectively. The findings based on ordinary least square (OLS) and two stages least squares (2SLS) econometric models indicated a significant positive linkage between CSR and FP while increased levels of the moderating variables significantly reinforced CSR-FP relationship. Although this study used a number of variables to moderate CSR-FP relationship, it did not however consider the mediating variables which play an integral role in explaining the indirect CSR-FP linkage.

While applying regression analysis to probe the link between CSR, firm characteristics and FP, Basuony, Elseidi and Mohamed (2014) using cross-sectional data of non-financial firms in Egypt found a positive significant effect of CSR on FP. In addition, older and larger firms were found to have no significant influence on reinforcing CSR-FP relationship. To measure the variables, legal, economic, discretionary and ethical dimensions were aggregated to form a composite CSR index. On the other hand ROS, ROE, ROA and sales growth were used to proxy FP; while firm size (measured by number of employees and sales turnover) and age (operationalized by number of years) were used as the moderating variables. In addition, the study exclusively relied on the financial performance measures which capture historical performance arising from tangible assets instead of integrating non-financial performance measures which focuses on long-term organizational strategies.

To test the empirical relationship between CSR and FP, Choi, Kwak and Choe (2017) employed longitudinal dataset of 1,222 firm year observations in Korea in a span of 7 years (2012-2018). In this study, firm size was used to moderate CSR-FP relationship and was surrogated by log of sales turnover. CSR was measured using KEJI equal weighted CSR disclosure index as well as stakeholder-weighted CSR disclosure index. FP was proxied by Tobin Q, ROE and ROA. Panel data regression analysis was employed as the main estimation technique. To control for endogeneity, the study applied two-stage least squares (2SLS) regression analysis. Granger causality was employed to address statistical causation. The study found insignificant negative relationship between FP and equal-weighted CSR index but not with the stakeholder weighted stakeholder index. In addition, CSR-FP relationship became significantly stronger as firms became bigger. Nonetheless, this study failed to address the concern of potential bias in sample selection. This is because the selected firms were not only large but were also superior in terms of FP.

While probing whether size matter in terms of total assets, Yang, Bento and Akbar (2019) empirically examined a panel data of 126 pharmaceutical firms in China during the fiscal year 2010-2016. To examine the effect of CSR on FP, six unique attributes of social performance namely: society, environment, suppliers, customers, employees and shareholders were utilized to gauge their effect on performance. FP was measured by EPS, ROE, ROA and Tobin Q. The outcome of panel-based multivariate regression models suggested that the aggregate CSR score had a positive and significant impact on FP indicators. Additionally, environmental dimension had significant profound impact on FP, followed by supplier, employee and customer dimensions. However,

social and shareholder dimensions had a relatively lesser impact on FP. Furthermore, CSR-FP association became significantly stronger as firms became larger. However, this study did not consider intervening variables which largely indirectly describes CSR-FP relationship.

In the Indian context, Maqbool and Zameer (2018) examined the link between CSR and FP while employing size, age and leverage as the moderating variables. Secondary data collected from 28 listed commercial banks in Bombay stock exchange during the period 2007-2016 was applied while regression model was employed as the main estimation technique. CSR was extracted from annual reports via content analysis whereby social performance was segregated into environmental, community, diverse and workplace categories. ROA, ROE and net profit margin were used as indicators for measuring FP. Moderating variables: size, age and leverage were proxied by total assets; number of years since inception and the ratio of total assets to equity respectively. The results revealed that CSR exert significant positive influence on FP while increased levels of size, age and leverage significantly heighten CSR-FP relationship thus confirming synergistic interaction. However, this study focused on one industry. Since CSR practices vary across industries due to the nature of their operations, the findings therefore may not extend to other firms in a cross-section of industries.

To demystify the relationship between CSR and FP in Asian context, Gautam, Singh and Bhowmick (2016) employed multiple regression models as the principal statistical techniques. While utilizing size (measured by log of sales) and industry (proxied by dummy variables based on standard industrial classification index) as a moderating variables, the findings established a significant positive relationship between ROE, ROA as well as profit after tax and CSR index of 271 Indian firms rated as per social

performance disclosure based on 18 GRI parameters developed using binary codes. Furthermore, the findings revealed that as firms become bigger coupled by the nature of the industry in which they operate in, the CSR-FP relationship become insignificantly weaker (buffering interaction). Nevertheless, this study wholly relied on accounting metrics of financial performance which are not only historical in nature but equally susceptible to managerial manipulation.

Using size, leverage and capital structure to moderate the CSR-FP relationship, Sadeghi *et al.* (2016) employed cross-sectional data of 248 manufacturing firms listed at Tehran stock exchange during the year 2006-2012. The results based on multiple regression analysis suggested that CSR has a negative impact on FP while varying the levels of the moderating variables had no significant effect of the strength of CSR-FP relationship. CSR was decomposed into workers, community, customer and environmental dimensions. ROA and ROE were employed as the indicators for FP. Size, leverage and capital structure were proxied by total assets; total liabilities to total assets ratio and debt to equity ratio respectively. However, single sector analyses often impede generalization of empirical outcomes in cross-sectorial context.

2.3.4 Corporate Social Responsibility, Corporate Image, Firm Size and Firm Performance

The nexus between CSR, visibility, image and profitability was investigated by Park (2017) using a data set of 175 Korean firms in the period 2010–2012. To analyze this link, the researcher employed logistic regressions and OLS models whereby ROA, Tobin Q, reputation index, CSR index and advertisement intensity were used as measures of profitability, corporate image, CSR, and visibility respectively. The overall statistical model was statistically significant. The study also revealed that visibility

moderates the relationship between CSR and corporate image. Furthermore, the findings indicate that CSR has both direct and indirect positive effect on FP in the long run via corporate image. However, use of CSR and corporate image indices suffer some major potential weaknesses. First, they are typically compiled by private firms with vested interest and they rarely employ scientific methods hence resulting into biases stemming from selection of respondents and evaluation criteria. Secondly, it is limited to specific countries with greater emphasis being on large publicly listed companies.

Using cross-sectional data set for 17 Islamic banks in Malaysia from 2008–2010, Roshayani, Othman and Othman (2012) examined whether CSR adoption leads to better FP. The empirical strategy employed involved the use of linear multiple regression as a basis for testing the research hypotheses. In this study, CSR was measured by social performance index, FP was captured by ROA and ROE, corporate image was surrogated by reputation index and firm size was proxied by total assets. From the estimation results, the overall regression model was significant. The results reveal that CSR disclosure leads into superior FP. Similarly, the study documents a significant mediating role of corporate image while size had no moderating role on the relationship CSR-FP relationship. However, the use of smaller sample sizes often impairs researchers from obtaining strong results that can be used for generalizations hence threatening the validity and statistical conclusions of the study.

The impact of CSR on firm's profitability was evaluated by Arshad *et al*. (2016) using a data set of 125 firms listed at Karachi stock exchange in Pakistan from 2009 to 2013. In this study, the indicators used to measure CSR were expenditure on environment and donations made by the firms, firm characteristics was measured by natural logarithm of age and size of the firm, corporate image was proxied by corporate popularity ranking

score while performance indicators used include Tobin Q and ROA. On the basis of Hausman tests, the econometric strategy employed involved the application of fixed effect panel regression model estimation technique. The study revealed that there was a significant joint effect of CSR, corporate image, firm size and age on diverse performance indicators. The study also documents that in both short term and the long run scenarios, CSR, and firm size had no significant impact on profitability except for the age of the firm. In addition, the study revealed a positive relationship between CSR and corporate image. The study recommended that further novel empirical studies should be carried out in the same context to ascertain whether CSR leads into emergence of any other intangible asset(s) that can enhance profitability. Nonetheless, the major shortcoming of this study is the operationalization of CSR where the variable was captured by two dimensions (environment and donations) while in essence, CSR is a multifaceted construct.

To test the collective effects of CSR on corporate image, size, identity on company's performance in a multi-industry setting, Arendt and Brettel (2010) carried out an empirical study based on pre-existing CSR scales focusing on community dimension using cross-sectional dataset of 389 European firms between August and October 2009. Corporate image was measured by firm attractiveness rankings and what the company stands for; firm size was proxied by log of total assets; corporate identity was captured by symbols and visual branding while performance was surrogated by customer satisfaction, loyalty and number of new customers. The results based on structural equation model (SEM) indicate that CSR positively triggers corporate image, corporate identity and its linkage to performance significantly varies on the basis of the firm size, marketing budget and the type of industry. Similarly, the overall regression model was statistically significant hence providing sufficient evidence that the explanatory

variables had a collective influence on performance. However, this study was carried out in European Union and findings may not be applicable to other regions like Africa due to variation in institutional, political economic and cultural factors. Likewise, despite CSR being a multi-dimensional construct, this study exclusively focused on community dimension and ignored other dimensions such as environment, employees, customers and investors despite CSR being a multifaceted phenomenon.

A study by Lu, Abeysekera and Cortese (2015) aimed at investigating CSR-FP relationship using corporate image and size as mediating and moderating variables respectively. The study utilized cross-sectional data drawn from 3 firms listed at the Chinese stock exchange during the period 2010-2014. CSR was measured by CSR reporting quality in terms of social, economic and environmental performance based on GRI framework; corporate image was proxied by Chinese stock-listed firms' reputation rankings; firm size was surrogated by sales turnover while performance was proxied by ROA. Based on ordinary least squares (OLS) regression estimation technique, the finding indicated that CSR reporting is significantly positively related to corporate image, size and FP. In addition, there was a joint effect CSR, image and size on financial performance based on the significance of the overall regression model. However, this study used a small sample of firms for a cross-sectional study and the indicators provided for various concepts have a potential of limiting generalization of findings especially for firms outside the ranking list.

On the basis of structural equation model (SEM) as an econometric strategy for testing hypothesis, Ali *et al.* (2018) examined how CSR boosts FP where corporate image and customer satisfaction were used as the intervening variables while size was used as a moderating variable. Cross-sectional data covering the period 2013–2018 was gathered

from 229 firms listed at the Pakistani stock. CSR index was developed using four dimensions namely: economic, legal, ethical and discretionary practices; corporate image scale was computed using three items (trustworthiness, innovation and stability); customer satisfaction metric was developed using fulfilment of expectations and overall customer satisfaction indicators. The number of employees was used to proxy firm size while performance was measured by non-financial indicators of balanced score card (BSC). The overall estimation model was statistically significant based on the empirical findings. The findings indicate that corporate image and satisfaction partially mediate the association between CSR and FP while firm size does not moderate CSR-FP relationship. However, averaging data about CSR, image, customer satisfaction, firm size and FP of several companies into a single observation leads to loss of information and distortion of the analysis between study variables.

While adopting multiple mediation analysis approach, Vazquez *et al.* (2019) analyzed CSR as an antecedent of image, innovation, performance and firm size using structural equation model (SEM) of a sample of 109 firms in Spain's autonomous community of Extremadura during 2017-2018. CSR was conceptually measured by items based on main themes relating to economic, social and environmental activities. Corporate image indicators adopted included: employee/customer satisfaction, employee/customer loyalty and quality of products/services. Innovation was captured by adaptation to changes and new markets; number of new products; research and development as well as improvement in production techniques. Performance was proxied by increase in profitability, sales growth and market share. Finally, size was measured using the number of employees. The results based on Baron and Kenny (1986) regression model showed that innovation and performance mediate the relationship between CSR and corporate image. In addition, the findings established a negative insignificant link

between company size and corporate performance. However, this study is limited to a single autonomous Spanish community with homogenous specific CSR characteristics. This implies that the findings cannot be extrapolated to other regions (continents) unless they have not only similar laws but equally analogous evaluation criteria to identify socially responsible firms.

Moreover, Choongo (2017) investigated the impact of CSR on FP among SME's in Zambia while controlling for corporate image and firm size. Longitudinal data was collected from 154 entrepreneurs in twofold surveys and variations in CSR and FP metrics were empirically analyzed over a span of 12 months' period using structural equation model (SEM). In this study, CSR was proxied by environmental and social dimensions; corporate image was captured by attractiveness, trustworthiness and product quality; firm size was surrogated by log of number of employees while FP indicators consisted of market share and sales growth. The findings also showed that the relationship between CSR and FP was significant while the association between CSR, image and size and FP was partially significant over time. This study however has several limitations. First, despite this study being longitudinal in nature, data was collected in two waves 12 months apart and this might not explain the casualty in regard to CSR-FP linkage. Secondly, the sample was drawn from one sector (trading) and this has the potential of limiting generalization of findings to other sectors.

Elsewhere, Dyduch and Krasodomska (2017) reviewed determinants of CSR disclosure on environmental, social, employee and ethical matters in annual reports of Polish firms. These elements included firm size, financial leverage, profitability, women on board, board size, internationalization and corporate image. These determinants were measured using number of employees and sales turnover; debt to total asset ratio; return on sales; percentage of women on company's board; number of directors on the firm's

board; percentage of foreigners on company's board and respect index portfolio respectively. Content analysis was used in computation of CSR disclosure index. Hypothesis was tested via Tobit regression analysis using a total of 60 annual reports for the year 2014. The study revealed that internationalization, board size, women on board and profitability had insignificant and positive influence on CSR. Sales turnover, financial leverage and corporate image in contrast were found to have positive insignificant effect on CSR. However, this study was based on one-year data which has a potential of hindering universal generalization of the research upshots.

An empirical investigation by Cherian, Umar Thu, Nguyen-Trang, Sial and Khuong (2019) examined the nexus between CSR and FP with evidence from panel data of a sample of 50 manufacturing firms in India for the fiscal year 2011-2017. In this study, size and image were used as the moderating and mediating variables respectively and were measured by the number of employees and Fortune reputation index respectively. CSR disclosure index was developed using products, customer, community, environment, employee benefits and education constructs while performance indicators included ROE, ROCE, ROA, profit after tax and MBR. While applying fixed and random effect panel data regression models, the study documented a positive CSR-FP relationship and also established that image and size does not mediate and moderate CSR-FP linkage. However, single sector analysis is problematic since findings may not be applicable to other contexts due to contextual disparities.

To empirically test the interaction between CSR and firm value while using image, size, leverage and age as control variables, Chung, Jung and Young (2018) employed panel regression model utilizing longitudinal data of 1,618 yearly observations of Korean listed firms from 2005-2015. KEJI index consisting of six attributes (soundness, social,

environmental, consumer, development and employee dimensions) were used as a metrics for operationalizing CSR while firm value was denoted by Tobin Q. Furthermore, image, size, leverage and age were surrogated by Fortune reputation quotient; log of total assets; total debt divided by the total assets and log of number of years in operation respectively. The regression output suggests that the overall model was statistically significant. The findings support a positive link between CSR and firm value. Moreover, image and age were found to be positively related to firm value while size, leverage and age were found to be negatively related to firm value. However, this study solely relied on market based financial measures which reflects the subjective assessment of investors instead of true economic reality of the firm.

2.4 Summary of Empirical Literature Review and Research Gaps

A summary of the past empirical studies and research gaps identified are provided in Table 2.1. In each of the reviewed empirical study, the author of the study, focus of the study, methodology adopted, the research findings, knowledge gaps and the manner of addressing the identified research gaps are clearly articulated.

Table 2.1: Summary of Selected Empirical Studies and Knowledge Gaps

Author	Focus of the Study	Methodology	Findings	Knowledge Gaps	Addressing the Existing Gaps in the Current Study
Agyemang and Ansong (2016)	Interaction between CSR, image and FP.	Partial least square estimation technique	CSR practices enhances corporate image which in turn translates into improved FP.	The study wholly relied on non-financial performance measures which are subjective in nature and overlooked traditional financial measures whose chief advantage is their contemporariness and objectivity.	This study integrates both financial and non-financial performance measures.
Arendt and Brettel (2010)	The nexus between CSR, corporate image, corporate identity, size and FP.	Structural equation model	CSR positively triggers corporate image, corporate identity and its linkage to performance significantly varies on the basis of the firm size, marketing budget and the type of industry.	This study was carried out in European Union and findings may not be generalized to other regions like Africa due to variation in institutional, economic, political and cultural factors.	This study focuses on the local context
Asatryan and Brezinova (2014)	CSR and FP in an airline industry.	Regression analysis	Significant positive linkage between CR and FP.	Use of single industry (airline) as a sample poses contextual limitations since results may not extend across all the companies in a multi-industry setting.	This study focuses on multi-industry setting as the context of the study.
Asrar-ul-Haq (2020)	The link between corporate image, customer satisfaction, size and FP	Structural equation model	Corporate image and satisfaction partially mediate the association between CSR and FP while firm size does not moderate CSR-FP relationship.	However, averaging data about CSR, image, customer satisfaction, firm size and FP of several companies into a single observation leads to loss of information and distortion of the analysis between study variables.	This study uses both segregated and aggregated measures of various variables.

Chakroun, Salhi and Jarboui (2019)	The moderating role of size on CSR-FP relationship.	General least square method	CSR has a significant positive impact on size and FP.	The study ignored other crucial control variables such as corporate image which mediates the link between CSR and FP.	This study uses a mediating variable (image) as a control variable.
Choongo (2017)	The relationship between CSR, image, size and FP.	Structural equation model	The relationship between CSR and FP is significant while the association between CSR, image and size is partially significant over time.	The sample was drawn from one sector (trading) and this has the potential of limiting generalization of findings to other sectors.	This study focuses on multi-sectorial context.
Giannarakis, Konteos, Zafeiriou and Partalidou (2016)	Environmental, social and governance CSR scores and performance.	Fixed effect panel data	Significant positive association between CSR and FP.	Reliance on content analysis is cumbersome since information presented in CSR reports can be different from the actual performance therefore making it difficult to cross check the reliability of the presented data.	This study uses questionnaire in collecting the primary data.
Hafez (2017)	The nexus between CSR, image and brand performance.	Structural equation model	Successful CSR practices enhances corporate image and brand awareness in the minds of customers which eventually contribute to building of strong brand performance	The study disregarded other control variables such as firm size, age of the firm among others which play an important role in moderating the relationship between CSR and brand performance.	This study integrates corporate image and size as the mediating and moderating variables respectively.
Han *et al*. (2016)	Linkage between CSR and FP.	Random effect panel regression technique	Governance CSR score revealed a positive link with FP while social and environmental scores reveal negative and insignificant links with FP respectively.	Aggregated measures of CSR such as ESG lack consistency and standardized definition for comparison purposes. This leads to biases since firms might be unwilling to disclose necessary information.	The present study uses diverse segregated dimensions of CSR.

Hirigoyen and Poulain-Rehm (2015)	The association between CSR, size, debt and FP.	Regression model	FP negatively impacts CSR while control variables have no moderating role on the CSR–FP relationship.	Use of cross-country sets of data to investigate CSR-FP relationship has been criticized since regulatory, economic, political and cultural environments vary across states making it difficult to control these factors in empirical modeling.	This study focuses on single country analysis.
Hossain, Chowdhury, Evans and Lema (2015)	The linkage between CSR, size, age, industry and FP.	Regression analysis	Positive and significant CSR-FP relationship with accounting measures but an insignificant relationship with market based measures. In addition, size, age and industry dummies were found to have moderating effect on CSR-FP relationship.	CSR performance index developed does not capture all the relevant dimensions of CSR and the judgment criteria used in scoring is subjective. In addition, the findings cannot be extrapolated to developing countries since vast of these countries have no laws that makes it mandatory for firms to disclose their CSR practices.	Unlike indices, this study uses an array of diverse CSR dimensions (monetary and non-monetary dimensions).
Huang and Lien (2012)	The mediating role of corporate image on CSR-FP relationship.	Hierarchical regressions	CSR positively influence FP via corporate image.	Use of single industry analysis hinders generalization of findings since results cannot be convincingly extrapolated to other industries which are contextually varied.	This study is based on a multi-industry setting.
Jaiswal, Rastogi and Banerjee (2019)	CSR expenditure and performance.	Regression and Pearson correlation analysis	CSR expenditures are significantly associated with increased revenues (performance).	The study used a case study which is faulted for lack of rigor; generalization of results is limited; it cannot be replicated hence is incapable of being corroborated and it is also susceptible to research bias.	This study focuses on a multiple firms in a multi-industry setting.

Kabir and Qayum (2016)	CSR expenditure and FP using accounting and market based measures.	Regression and correlation analysis	Insignificant and negative impact of CSR expenditure on FP.	Focused only on monetary aspects of CSR and overlooked other non-monetary aspects of CSR The study used small sample sizes which reduces the power of the study, produces false positive results and overestimates the extent of variable association.	This study focuses on both monetary and non-monetary aspects of CSR. This study uses a relatively larger sample.
Laskar and Maji (2017)	CSR disclosure and firm performance.	General least square method	Significant and positive impact of CSR on firm performance.	The study overlooked other crucial dimension of CSR touching on environment investors, customers and suppliers. The study focuses on a country in a developed economy which is characterized by dissimilar cultural, economic and regulatory environment.	The current analysis integrates environmental, investor, customer and supplier CSR dimensions. The current study focuses on the local context (NSE).
Nag and Bhattacharyya (2016)	Linkage between CSR disclosure, size and FP.	Regression model	The study reveals that CSR reporting has insignificant impact on FP while size was found to moderate the firm between CSR and FP.	Use of content analysis is susceptible to researcher's bias, time consuming and inaccurate coding can invalidate findings in the context of complex textual analysis.	This study used questionnaire to gather primary data and secondary data was sourced from audited financial statements.
Nawaiseh (2015)	Systematic analysis of linkage between firm size, financial performance and CSR disclosure.	Ordinary least squares model	Firm size has statistically significant influence on both CSR dimensions (environmental and employees) and vice versa in regard to link	Decomposing CSR into employee and environmental constructs only poses empirical challenges since it fails to capture other critical aspects of CSR such as investors, suppliers and community dimensions.	This study captures the investors and supplier's dimensions of CSR.

			between leverage and CSR dimensions.	This study exclusively relied on the FPM which captures historical performance arising from tangible assets instead of integrating NFPM which focuses on long-term organizational strategies.	This study integrates both financial and non-financial measures of performance which provides holistic approach to measuring performance.
Oh and Park (2015)	CSR, firm size and performance.	Dynamic panel model	Positive link between CSR, firm size and FP.	The findings of this study which was conducted in a developed economy cannot be extrapolated to developing economies owing to variation in economic, regulatory and cultural environments.	The current study focuses on the local context which is contextually distinct.
Pradhan (2016)	Impact of CSR intensity on corporate image and profitability.	Structural equation model	Significant positive relationship between CSR, corporate image and FP.	Use of CSR expenditure as a measure of CSR is cumbersome since it does not consider all the dimension of CSR.	This study captures multiple dimensions of CSR.
Priyadarshini and Gomathi (2018)	CSR and performance.	Regression and correlation analysis	Insignificant and negative relationship between CSR expenditure and performance.	The study exclusively relied on monetary aspects of CSR (CSR expenditure) while in reality, CSR is a multifaceted concept which has an array of non-pecuniary dimensions.	This study integrates both monetary and non-monetary aspects of CSR.
Roshayani *et al.* (2012)	Nexus between CSR, image, visibility and profitability	Multiple regression	CSR is positively linked to image and FP while size has no moderating role on the relationship between CSR and FP.	Use of smaller sample sizes often impairs researchers from obtaining strong results that can be used for generalizations hence threatening the validity and statistical conclusions of the study.	This study uses a larger sample size.
Sindhu and Arif (2017)	The linkage between CSR, image and FP.	Structural equation model	CSR significantly influences FP and this relation is partially	The study solely relied on non-financial performance measures despite existence of financial	The study will combine both financial and non-financial measures of performance.

			moderated by corporate image.	measures which provide great objectivity.	
Taghian *et al.* (2015)	Stakeholder approach to CSR, image and FP.	Structural equation model	There is a positive association between CSR, corporate image and FP.	The study did not take into account other moderating variables like firm size which plays a key role in moderating the relationship between CSR and FP.	This study incorporates firm size as a moderating variable in examining the link between CSR and FP.
Tyagi and Sharma (2013)	The relationship between CSR, size and FP.	Random effect generalized least square (FGLS) regression model	Modest negative CSP-FP relationship while size had no moderating effect on this relationship.	This study was conducted in a developed economy context which has superior economic, political and institutional environment and therefore findings cannot be automatically extrapolated to local context which is characterized by a unique cultural environment.	This study focuses on the local context.
Vazquez, Juarez and Castuera-Diaz (2019)	The interaction between CSR, image, innovation, size and FP.	Regression analysis	Innovation and performance mediate CSR-corporate image relationship. In addition, the findings found insignificant link between company size and corporate image.	This study is limited to a single autonomous Spanish community with homogenous specific CSR characteristics. This implies that the findings cannot be extrapolated to other regions (continents) unless they have not only similar laws but equally analogous evaluation criteria to identify socially responsible firms.	This study focuses on a multi-cultural context.

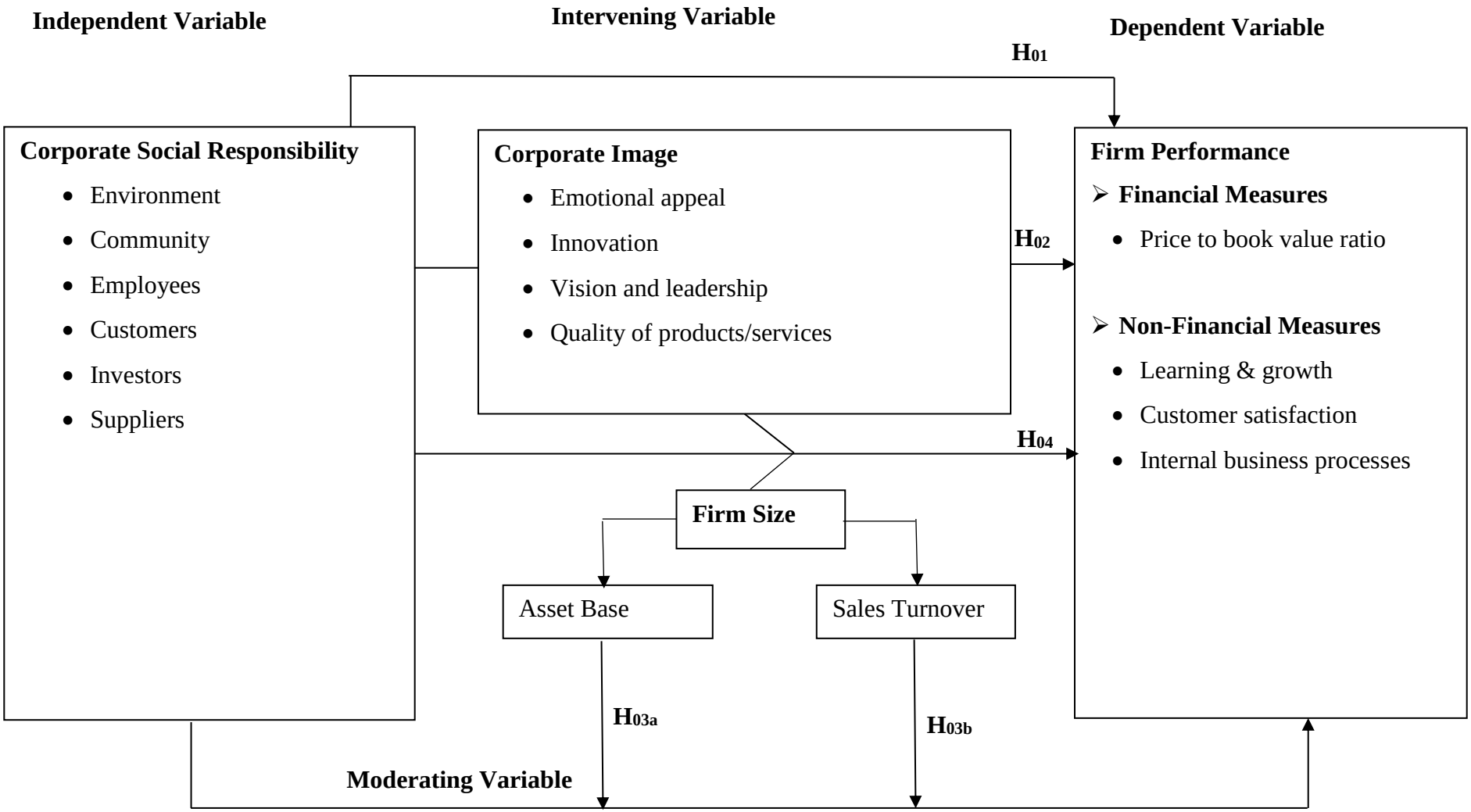
Source: Empirical Literature Review

2.5 Conceptual Framework

Conceptual framework is a diagrammatic representation of interrelationships between the study variables as described in Figure 2.1. Drawing on the past theoretical and empirical analyses, the link between the study variables can be operationalized using diverse indicators. The predictor variable in this study is CSR which is surrogated by environment, employees, community, investors, suppliers and customers' dimension. This variable mirrors to large extent the prior empirical works of Han *et al.* (2016) and Roshayani *et al*. (2012) and is modeled after stakeholder theory, resource-based view theory, signaling theory and legitimacy theory. Corporate image is the intervening variable which mediates the relationship between CSR and FP.

The indicators used to proxy image include; emotional appeal, innovation, vision and leadership and quality of products/services. This is supported by the previous empirical studies of Taghian *et al.* (2015), Pradhan (2016) and Arshad *et al.* (2016). The nexus between CSI and FP is moderated by firm size which is conceptually measured by asset base and sales turnover. This is in line with the prior empirical works of Nawaiseh (2015), Oh and Park (2015) and Kakakhel *et al.* (2017). FP is considered as the dependent variable and is delineated by financial performance measure (PBV ratio) and non-financial performance measures namely: learning and growth; customer satisfaction and learning and growth. Operationalization of this variable is based on the past empirical studies such as Laskar and Maji (2017) and Arshad *et al.* (2016).

Figure 2.1: Conceptual Model



2.6 Research Hypothesis

Guided by the conceptual framework and the research objectives, the null hypotheses tested were;

H_{01}: The relationship between corporate social responsibility and performance of firms listed at the Nairobi Securities Exchange is not significant.

H_{02}: Corporate image does not significantly mediate the relationship between corporate social responsibility and performance of firms listed at the Nairobi Securities Exchange.

H_{03}: Firm size does not significantly moderate the relationship between corporate social responsibility and performance of firms listed at the Nairobi Securities Exchange.

> **H_{03a}**: Asset base does not significantly moderate the relationship between corporate social responsibility and performance of firms listed at the Nairobi Securities Exchange.
>
> **H_{03b}**: Sales turnover does not significantly moderate the relationship between corporate social responsibility and performance of firms listed at the Nairobi Securities Exchange.

H_{04}: The joint effect of corporate social responsibility, corporate image and firm size on performance of firms listed at the Nairobi Securities Exchange is not significant.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

Chapter three outlines the methodology that underpins the study. Likewise, it gives the philosophical position and pinpoints the strategies employed in gathering and analyzing data. Research methodology is the philosophical arguments or assumptions that guide a particular study (Porta, 2014). Methodological decisions influence the manner in which data is collected and also determines how the study objectives are achieved. The methodology principally focuses on philosophical orientations, research design, target population, data sources, reliability and validity of data collection instruments, diagnostic tests, operationalization of study variables, model specification and ethical considerations.

3.2 Research Philosophy

Research philosophy is an all-encompassing system of values, concepts, beliefs, assumptions and practices that guides researcher's behaviour and helps in knowledge development (Leedy & Ormrod, 2015). Although there are four major paradigms in research (positivism, interprevitism, pragmatism and realism), social science research structure is largely polarized into positivism and phenomenological (rooted to interprevitism) extreme philosophical frameworks. Phenomenology accepts the universe to be socially constructed and arguably gives subjectivity a privileged position. Phenomenologists believe in existence of multiple constructed realities. Therefore, individuals and groups make sense of situations on the basis of their personal experiences, memories and expectations (Bryman & Bell, 2015). In this paradigm, what is observed is contingent upon human interests and the observer is inseparable from the observed. Phenomenologists attempt to comprehend the meanings ascribed to

numerous phenomena and are habitually depicted as inductive with focus being on use of qualitative data, small sample sizes and multiple approaches to determine diverse views of a phenomena. However, Porta (2014) accuses phenomenological inquiry of producing work that lacks precision, clarity, credibility and rigor since it is prone to distortions caused by purpose and the values of the researcher.

Conversely, positivistic paradigm believes that the universe is external and reality is described from an objective viewpoint as long as it is observable, replicable and verifiable. Positivist unlike phenomenologist believes that there is a single reality. Central to positivistic tradition is the observer's independence, causality, value-freedom, reductionism, hypothetico-deductive, operationalization, cross-sectional analysis and generalization (Zikmund, 2013). Positivism seeks to obtain law-like generalizations by conducting value-free research to measure social phenomena. Positivists believe that distinct researchers observing similar factual problem generate analogous findings using statistical tests and applying similar research strategy in investigating a phenomenon (Creswell, 2014). The general belief is that there exists a universal generalization approach that is applicable across diverse contexts.

This study is grounded on positivist research paradigm. This paradigm helps in understanding the link between CSR and FP while using corporate image and size as the mediating and moderating variables respectively. The justification for adopting this paradigm is that the study aims at testing hypothesis derived from existing theories via objective measurement of observable social realities. In addition, positivist approach gives causal exposition of study variables and has been extensively applied in CSR-FP related studies. Positivism suits this study since it is purely rooted on facts gathered through experience as well as direct observation and can be empirically measured using

quantitative or statistical methods. Likewise, the researcher maintains a detached, distant, non-interactive and neutral position from the phenomena under investigation thus implying objectivity (Creswell, 2014; Sekaran & Bougie, 2013).

3.3 Research Design

Research design is a blueprint, plan, strategy, structure or framework that integrates diverse components of the study in a logical and coherent manner. This enables the researcher to collect appropriate data in order to explicitly achieve the objectives of the study (Kothari, 2018). Research design outlines the processes that guide measurement, sample selection, collection and analysis of data as well as hypothesis testing so as to enable the researcher to find answers to pertinent research questions (Zikmund, 2013). Fundamentally, design is the logical sequence that connects empirical data, research questions and conclusions (Cooper & Schindler, 2014). The outcome of a research design is to add new frontiers of knowledge, develop theories as well as gathering evidence to prove generalizations (Bryman & Bell, 2015).

Research design frameworks can broadly be divided into three major types: descriptive, exploratory or causal (Leedy & Ormrod, 2015). Descriptive research design probes phenomena of interest in its naturalistic setting and involves measurement, classification, analysis, making comparison as well as interpretation. Exploratory research is conducted with an aim of gaining new insights, discovering new ideas and increasing knowledge of a phenomenon. It is largely employed when the problem under investigation is at preliminary state of inquiry. Causal research design typically seeks to examine the cause and effect relationship between the study variables and aims at explaining why a phenomenon occurs as well as predicting the future occurrences. Research design can be classified further into longitudinal design which entails

studying a panel of a given set of respondents over a given period of time and cross-sectional design which involves measurement of population characteristics once.

This study adopted descriptive cross-sectional design. This design is appropriate since it allows the researcher to collect data on more than one case at one point in time without manipulating the environment so as to obtain some quantifiable data on a range of issues under investigation. The descriptive cross-sectional design is suitable since the study seeks to establish the relationship between different study variables. Cross-sectional approach enables the researcher to accurately capture populations' characteristics' in a free natural occurrence and eventually test the hypothesis (Saunders, Lewis & Thornhill, 2016; Sekaran & Bougie, 2013). This approach is versatile since CSR, image, size and FP are multidimensional and multidisciplinary constructs that can be researched using cross-sectional data set. This allows the pattern of convergence to develop and corroborate the overall interpretation of relationships between the study variables. Various researchers (Iraya, 2014; Mirie, 2014; Gitahi, 2016; Wakaisuka, 2017; Mwangi, 2018) have used analogous research design for the related studies.

3.4 Population of the Study

Population is the aggregate of entire elements that conform to a common set of characteristics in any field of inquiry (Oladipo, Ikamari, Kiplang'at & Barasa, 2015). The target population comprised of all the 61 firms listed at the NSE (Appendix III), which formed the unit of analysis. These firms belong to 12 sectors of the economy. The choice of firms listed at the NSE was informed by their divergence in nature and by sectorial characteristics (NSE, 2021).

Due to uniformity in reporting of the listed firms, it is possible to make comparisons within the same industries as well as across the industries. Since most of listed firms are large in size, they possess huge slack resources to sustain CSR practices. Majority of listed firms lead in terms of compliance with statutory requirements and market capitalization. Furthermore, their financial data is readily available since listed firms mandatorily publish their financial statements in compliance with the stipulated statutory requirements. No sampling was done owing to the relatively small population size and therefore a census survey of 61 firms was carried out.

3.5 Data Collection

Data collection is the precise and systematic gathering of relevant information required to address a research problem (Kothari, 2018). Data was gathered from both primary and secondary sources. Primary data on CSR, corporate image and non-financial performance measures was collected through a structured questionnaire on five-point Likert scale consisting of closed ended questions (Appendix I). The choice of Likert scale was informed by its simplicity where numerical values are attributed to the informant's opinions. Structured questionnaires use closed ended questions in order to minimize response discrepancies; require minimal coding and transcription line; leads to higher response rate and are more responsive to statistical manipulation. The major advantage of structured questionnaires is that it enhances greater objectivity and support statistical analysis. Questions on CSR were adopted from the empirical works of Mishra and Suar (2015) which were constructed based on internationally accepted CSR guideline (GRI framework). Likewise, questions on corporate image were adopted from Reptrak-TM image quotient and reputation quotient developed by Fombrun *et al.* (2000). Furthermore; the indicators used to proxy non-financial performance were adopted from the balance score card popularized by Kaplan and Norton (2008).

The data collection instrument's layout, design and content were consistent with the research objectives and the stated hypotheses. The questions were formulated in a manner to capture the required data/information from the targeted respondents. The questionnaire consisted of 85 questions which were relatively straightforward. To ensure respondents maximum involvement and cooperation, the questionnaire was not only made interesting but also easy to read. This was achieved by keeping questions brief, concise, clear and easy to understand.

The research instrument was divided into four sections, namely: firm information (section A); CSR focusing on environmental, community, employees, customers, investors and suppliers dimensions (section B), corporate image which was operationalized by emotional appeal, quality of products/services, vision and leadership as well as innovation (section C); and finally non-financial performance which was captured by learning and growth, customer satisfaction and internal business processes (section D). Secondary data on firm size and financial performance covering a period of 5 years (2014-2018) was extracted from company's annual reports, NSE and CMA publications.

The respondents in this study were the managers spearheading the CSR related activities in their respective firms. These participants were identified as the most appropriate in providing accurate information for the study. The respondents were well versed with aspects of CSR and corporate image of the firms as well as its potential effect on performance. To collect the primary data; an online questionnaire link was electronically sent via email and WhatsApp to respective corporate managers who spearhead the CSR activities in each firm by the trained research assistants.

3.6 Validity Tests

Validity is the degree to which a research instrument exactly measures what it is designed to measure (Oladipo *et al.*, 2015). Although there are several types of validity: face, content, construct, concurrent, convergent and predictive, greater emphasis was limited to content, face and construct dimensions in this study. Content validity estimates the extent to which a specific measure effectively captures every single attribute of a construct (Gatara, 2010). To test content validity, the researcher solicited help from knowledgeable experts in the area of the study to review the cogency of questions in meeting the study objectives. Based on expert opinion, obscure and unclear items were revised, complex questions reworded and non-functioning questions discarded.

On the other hand, face validity is the extent to which a research tool is subjectively seen to cover the concept it claims to measure (Kothari, 2018). In order to test face validity, an instrument was given to an expert in the subject matter to judge whether the tool accurately measured what is intended to measure so as to assist in reorganization of the meaning, structure and sequence of questions. Furthermore, construct validity denotes the degree to which construct operationalization legitimately measure what the theory alludes (Saunders *et al.*, 2013). To achieve construct validity, constructs were aligned to relevant theoretical propositions.

3.7 Reliability Tests

Reliability is the extent to which a measurement of a phenomenon is error-free and therefore reproduces consistent and stable results on repeated trials under constant conditions (Oladipo *et al*., 2015). A research instrument is said to be reliable if its measurements precisely reflect the accurate scores of the attributes under investigation.

Reliability measures consistency, repeatability, precision and trustworthiness of a research instrument. There are three most important reliability criteria: internal consistency, equivalence and stability (Cooper & Schindler, 2014; Kothari, 2018).

Internal consistency estimates reliability by grouping items in a research instrument that measure the same concept which ensures homogeneity among the items (Mohajan, 2018). It establishes whether operational indicators that constitute the scale are consistent. Equivalence is related to the variation as a result of the researcher's subjective judgment (Noble & Smith, 2015). Equivalence is augmented by enlarging the sample size, using trained and motivated research assistants and carefully designing instruction that do not vary from one group to another. Stability is the consistent reliability over time and indicates that similar results can be obtained when analogous research instrument is administered to the same respondents at varied times (Rahi, 2017). To achieve stability and equivalence reliability, factual questions were used in this study and similar instructions were issued to all participants.

Reliability of the research instrument was evaluated using Cronbach's alpha which is typically an ideal measure for internal consistency. Cronbach's alpha principally assesses the average of all possible split-half reliability coefficients (Kothari, 2018). A calculated alpha coefficient ranges from 0 (indicating lack of internal reliability) to 1 (indicating perfect internal reliability). Hinton, Brownlow, Murray and Cozen (2004) proposed a four cut-off point criteria for statistically evaluating reliability. Cronbach's alpha value (α) 0.90 and above implies excellent reliability; alpha (α) value ranging between 0.7 - 0.9 indicates high reliability; alpha (α) statistic stretching between 0.50 - 0.70 signifies moderate reliability; and finally, alpha (α) value of 0.5 and below implies

low level of reliability. In this study, an alpha value of 0.7 and above was taken to imply internal consistency of all items measuring various constructs

3.8 Diagnostic Tests

Diagnostic tests are pre and post estimation procedures in research for evaluating whether the assumptions of classical linear regression have been complied with (Porta, 2015). Generally, the type of diagnostic test to be carried out largely depends on the nature of the dataset gathered (cross-sectional, time series or panel data). Since this study was cross-sectional in nature, four fundamental assumptions underlying regression analysis, namely: normality, linearity, homogeneity of variances and multicollinearity were tested.

3.8.1 Normality Test

One of the key assumptions of regression analysis is that the errors (residuals) should be normally distributed (Leedy & Ormrod, 2015). This assumption is important in providing assurance that the p-values for F and t-tests are statistically valid. Normally distributed data assumes a bell-shaped curve. Rahi (2017) posits that both visual (graphical) and statistical methods are the widely employed techniques for assessing normality. Graphical/visual techniques for assessing normality, include: histograms, P-P plots, quantile to quantile (Q-Q) plots, cumulative distribution functions and box tests. On the other hand, the most common statistical methods for testing normality include: Jarque-Berra statistics, Shapiro-Wilk test, Kolmogorov-Smirnov D test and D'Agustino's Pearson test.

Under graphical methods, data is presumed to be normal if the histogram is symmetrical and assumes a bell shaped curve with the highest frequencies of scores at the center and the lowest frequencies at the extreme ends. P-P plot plots the cumulative proportions of

a variable against the selected test distribution of cumulative proportions. A reasonably straight line formed by P-P plot indicates that data is normally distributed. The Q-Q plot on the other hand plots quantile of distribution of a variable against test distribution's quantile. Normality is achieved if a Q-Q plot forms a 45-degree line and most of the data points are closely scattered along normal distribution line. This implies that the observed values conform to the hypothetical distribution.

With respect to the statistical methods, Jarque-Berra statistics evaluates the skewness and kurtosis so as to detect departures from normality. Normality implies that the data used in operationalizing the study variables does not exhibit high kurtosis, skewness or presence of extreme outliers. The prevalent rule of thumb test for normality is that kurtosis and skewness should be within the range of + 1.96 to -1.96. In regard to Shapiro-Wilk W test, if the statistic W is significantly less than 0.05, then the assumption of normality is violated. A large value for statistic D ($p > 0.05$) implies that data is normally distributed when using Kolmogorov-Smirnov D test for assessing normality. Lastly, D'Agustino's Pearson test is used to assess the normality and large value of statistic K^2 leads to violation of normality assumption. In this study, Shapiro-Wilk W test was used to assess normality.

Non-normal data is treated by transforming data for instance, by applying square roots or logs, inverse (reciprocal) transformations and arcsine transformations. However, Daniel and Minot (2020) suggest that normally distributed errors are considered to be discretionary assumption for ordinary least squares (OLS) regressions. This is justifiable on the grounds that normality assumption is only convenient, but not necessary for OLS estimation techniques. Even without normally distributed residuals,

OLS will still generate the best linear estimates (BLUE) regression weights (Dancey & Reidy, 2020).

3.8.2 Linearity Test

Linearity exists when the outcome variable is a linear function of the explanatory variable as well as the random error (Creswell, 2014). The association between independent and the dependent variables should be linear such that there is a constant slope. This is important since regression, correlation and other general linear models (GLS) assume linearity. Non-linear relationships often lead into emergence of type I and type II errors which have huge potential of overestimating or underestimating the relationships between the study variables.

Linearity is measured using both graphical and statistical methods. The most common non-statistical method of testing linearity is visual inspection of scatter plots where standardized residuals are plotted against standardized estimates (fitted values). Under graphical method, linearity exists when the data points cluster in an oval shape. On the other hand, examples of statistical methods that are frequently employed in testing linearity include Ramsey's RESET test, eta correlation coefficient, tolerance factor, curve fitting with R^2 difference tests and ANOVA. In this study, linearity was tested using ANOVA. Non linearity is corrected by data transformation through logs or reciprocal methods.

3.8.3 Homogeneity of Variances Test

Homogeneity of variance (homoscedasticity) is situation where the variance of the outcome variable does not vary across the range of values of the explanatory variable (Bryman & Bell, 2015). This means that the residuals are consistently spread out between the variables. Lack of constant variances is characterized by inflated residuals

which results into heteroscedasticity. Heteroscedasticity often occurs in datasets that have substantial disparity between the largest and the smallest observed value of the dependent variable (regressand). Heteroscedasticity often weakens the statistical power of analysis, increases the possibility of type 1 error, distorts the findings and gives erroneous conclusions (Zikmund, 2013). Overall, the incorrect estimates of the variance result into inferential and statistical challenges that hinder theory development.

Homoscedasticity is assessed using both graphical and statistical techniques. Under visual method, the most common technique for assessing homoscedasticity is using normal probability (P-P) plot of the standardized errors plotted against the standardized predicted values. Generally, when the homoscedasticity assumption is satisfied, the errors normally form a cloud of dots in a pattern less manner. On the other hand, the statistical methods used for testing homoscedasticity include: Godfeld-Quandt test, weighted least squares regression, Glejser test, Park test, Breusch-Pagan-Godfrey test, Levene's test and Whites test. This study used Breusch-Pagan test to assess homogeneity of variances. The presence of heteroscedasticity was corrected by running regression analysis using robust standard errors while employing Huber-White technique.

3.8.4 Multicollinearity Test

Multicollinearity is a statistical phenomenon where there is presence of high degree association or simply correlation among explanatory variables (Saunders *et al.*, 2014). As a result, one independent variable can be used to predict the other. Owing to the high associations among predictor variables, it is not possible to differentiate between the predictive powers of explanatory variables. Multicollinearity causes serious problems such as information redundancy; makes it difficult to isolate the effects of

individual regressors; inflates standard errors and depresses the t-values in regression analysis. The end product is that overly; it has a major potential of skewing the results in a regression model.

Multicollinearity is assessed using correlation matrix, tolerance value, condition indices and variance inflation factor (VIF). This study used VIF and tolerance value. However, the thumb of rule is that a VIF factor >10 implies serious multicollinearity while a tolerance value < 0.1 signifies the presence of multicollinearity. Multicollinearity is treated by dropping collinear variables, obtaining additional data, combining overlapping variables in the analysis or inclusion of heterogeneous metrics of analogous constructs in regression analysis.

The summary of various diagnostic tests for various statistical assumptions of regression analyses, their description, tests, interpretation and their treatment is provided in Table 3.1.

Table 3.1: Diagnostics Tests

Assumption	Description	Test(s)	Interpretation	Treatment
Normality Test	The errors (residuals) should be normally distributed	Shapiro- Wilk test	$p > 0.05$ signifies normality	Non-normal data can be transformed by applying square roots or logs.
Linearity Test	Linearity exists when the dependent variable is a linear function of the predictor variable as well as the random error.	ANOVA linearity test	Linearity is presumed if the p value of the deviation from linearity is greater than 0.05	Data transformation through logs or reciprocal methods.
Homogeneity of Variance test	Homogeneity of variance (homoscedasticity) is where the dependent variable shows analogous degree of variance across entire values of independent variables.	Breusch-Pagan test	$p > 0.05$ implies homoscedasticity	Regression analysis with robust standard errors using Huber-White technique.
Multicollinearity test	Multicollinearity is unacceptably high degree of correlation among explanatory variables which results into large standard errors (residuals).	Variance Inflation Factor (VHIF) Tolerance value	VIF factor >10 implies serious multicollinearity. Tolerance value < 0.1 signifies serious multicollinearity.	Dropping collinear variables or obtaining additional data.

3.9 Operationalization of the Study Variables

According to Zikmund (2013), operationalization is delineating concepts in order to make them measurable via assessment of their properties, facets or dimensions. There are four variables in this study namely: CSR (independent variable), corporate image (intervening variable), firm size (moderating variable) and FP (dependent variable). To measure these variables, composite scores were computed. The use of composites in empirical investigations has a number of key advantages. First, composites summarize complex, multi-dimensional realities with an aim of supporting decision making process. Second, it is easy to interpret composites than a set of many distinct indicators. Third, composites reduce the visible size of a set of indicators without necessarily reducing the underlying information base. Fourth, composites make it possible to add more information with the existing size limits. Finally, composites enable researchers to effectively compare complex dimensions in an enquiry.

The mean for all dimensions (environment, community, employees, customers, investors & suppliers) was computed to form a composite CSR score. The composite index for corporate image was computed as the mean of all indicators (emotional appeal, innovation, vision and leadership, quality of products/services). In contrast, firm size was measured using separate individual indicators (asset base and sales turnover) by computing the five-year average scores. In regard to financial performance, the five-year average for PBV ratio was computed. Five year average scores for both size and financial performance indicators was carried out so as to capture the true state of variables well and take care of temporary variations that may arise owing to unprecedented events such as economic shocks, political instability and adverse effects of pandemics that may affect them in a particular year. The total score

for non-financial performance was obtained by calculating the mean of the three indicators (customer satisfaction, learning & growth and internal business processes).

The composite score of FP was obtained by computing the mean of financial and non-financial metrics. However, the indicator used to measure financial performance was in a continuous scale. To make it suitable for computing a composite score, the indicator was recoded using SPSS into a categorical variable so as to make it possible to compute the mean of the performance indicators. This was meant to make the interpretation of the empirical findings easier. Numerous studies such as Gitahi (2016); Mwangi (2018) and Kahuthia (2016) have used adopted similar approach in computing FP composite scores.

Table 3.2: Operationalization of the Study Variables

Variable	Indicator	Operational Definition	Reference Question/Measurement	Scale	Source
Corporate Social Responsibility	Environment	CSR activities relating to environmental conservation.	5-point Likert scale: Part B, $Q_{1\text{-}11.}$	Interval	Yang *et al.* (2017)
	Community	CSR programs concerning firms participation in the community welfare.	5-point Likert scale: Part B, $Q_{12\text{-}20.}$		
	Employees	CSR activities relating to employee welfare.	5-point Likert scale: Part B, $Q_{21\text{-}32.}$		
	Customers	CSR activities in regard to customer welfare.	5-point Likert scale: Part B, $Q_{33\text{-}39.}$		
	Investors	CSR activities concerning safeguarding of investor interests.	5-point Likert scale: Part B, $Q_{40\text{-}45.}$		
	Suppliers	CSR activities concerning the welfare of the firm suppliers.	5-point Likert scale: Part B, $Q_{46\text{-}52.}$		
Corporate Image	Emotional appeal	Feeling, admiration, trust and respect towards the company.	5-point Likert scale: Part C, $Q_{53\text{-}56.}$	Interval	Arshad *et al*. (2016) Kakakhel *et al*. (2016) Nawaiseh (2015)
	Quality of products/services	Activities in relation to quality of firm products/services.	5-point Likert scale: Part C, $Q_{57\text{-}62.}$		
	Vision and Leadership	Clarity of vision, quality of management and how well the firm is organized.	5-point Likert scale: Part C, $Q_{63\text{-}67.}$		
	Innovation	Extent to which general the public identify a product by its attributes.	5-point Likert scale: Part C, $Q_{68\text{-}72.}$		
Firm Size	Asset base	Value of firm's tangible assets.	Natural log of assets.	Ratio	Park (2017)
	Turnover	Revenue from firm's business activities.	Natural log of sales.		
Firm Performance	Financial performance	A measure that compares the price of the outstanding shares with the net assets of the firm.	Price to book value ratio = Market Capitalization/Net Asset value.	Ratio	Park (2017)
	Non-financial performance	Metrics that capture non-monetary aspects of a firm such as learning & growth, customer satisfaction and internal business processes.	5-point Likert scale: Part D, $Q_{73\text{-}85.}$	Interval	Nawaiseh (2015)

3.10 Data Analysis

Data analysis is a systematic mechanism for organizing and synthesizing data so as to produce findings that require researcher's interpretation (Porta, 2014). Data analysis process followed the four critical steps identified by Sekeran (2006); first, preparation of data in readiness for analysis through editing for precision, consistency and completeness; secondly, getting the feel of the data through descriptive statistics; thirdly, testing the goodness of fit by undertaking various diagnostic tests (normality, linearity, homoscedasticity and multicollinearity) and lastly testing the research hypotheses.

The parameters of the empirical model were estimated using ordinary least squares (OLS) regression analysis. The main reason for choosing OLS is that this estimation technique has not only stronger, but equally very attractive statistical properties that makes it one of the most popular and powerful methods of regression analysis. The extensive use of OLS in regression analysis is attributed to its mathematical simplification and intuitive appeal compared to other estimation methods. Similarly, OLS is important in hypothesis testing since it captures very well the cross-sectional aspects of a phenomenon making it suitable for meeting the objectives of this study. Finally, OLS makes very efficient use of the data where good or credible results can be obtained with relatively small datasets.

3.10.1 Corporate Social Responsibility and Firm Performance

To investigate the relationship between CSR and FP (objective 1, hypothesis H_{01}), and for the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\mathbf{CSR} + \boldsymbol{\mathcal{E}_1} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(3.1)}$$

Where: **FP** = firm performance; **CSR** = corporate social responsibility; $\boldsymbol{\beta_0}$ = regression constant; $\boldsymbol{\beta_1}$ = coefficient; $\boldsymbol{\mathcal{E}}$ is the error term.

Adjusted coefficient of determination (R^2) was used to determine the model's goodness of fit; T-test was used to evaluate the statistical significance of β for each individual independent variable at $p < 0.05$; Beta coefficient (β) is the amount of change in the response variable in regression analysis for every unit change in the predictor variable when all other explanatory variables are held constant; F-test was used to assess the overall statistical significance of the model.

3.10.2 Corporate Social Responsibility, Corporate Image and Firm Performance

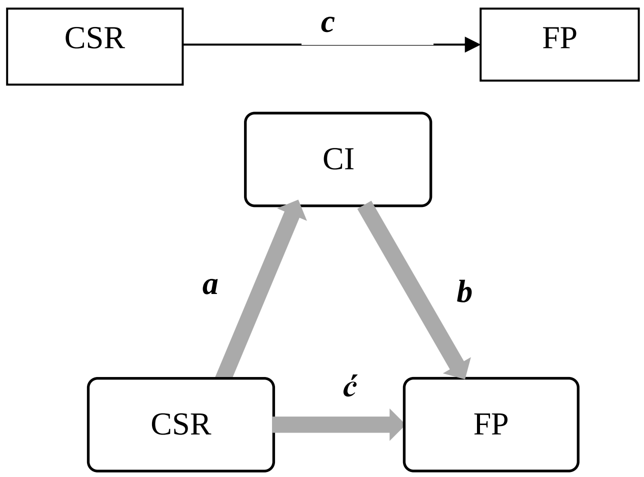
Mediation is a hypothesized causal chain where one variable (CSR) affects the second variable (corporate image) which in turn affects a third variable (FP). There are two major approaches of testing mediation: causal steps approach popularized by Baron and Kenny (1986) which tests the significance of the coefficients of the individual paths in the mediation model and product of coefficients approach which tests the significance of the indirect effects (ab). The product of coefficients approach for testing mediation is computed using either resampling/bootstrapping confidence interval techniques, Sobel test/normal test theory or structural equation model (SEM). To test the mediation hypothesis, PROCESS macro developed by Hayes (2018) as well as SEM were employed owing to their robustness since they simultaneously test the causal steps and product of coefficients approach.

For mediation to be achieved using causal steps strategy, Baron and Kenny (1986) outlined four necessary conditions to be met while testing mediation process. First, the independent variable (X) should significantly predict the outcome variable (Y). Secondly, the independent variable (X) should significantly predict the mediating

variable (M). Thirdly, when the effect of the independent variable (X) is controlled, the mediating variable (M) should significantly predict the outcome variable (Y). Fourthly, when the effect of the mediating variable (M) is controlled, there is a significant reduction in the relationship between the independent (X) and the outcome variable (Y) or the estimated relationship between these two variables is no longer significant.

Based on the causal approach, the greater the reduction in the path coefficient ***ć*** **(**Fig. 3.1), the larger the magnitude of mediation. Therefore Baron and Kenny (1986) distinguishes between full/complete mediation where the entire effect of the independent variable (X) on the outcome variable (Y) is via the mediating variable (M) and partial mediation where only part of the effect of the independent variable (X) on the outcome variable (Y) is through the mediating variable (M). Deming, Jahn and Boztug (2017) suggest that full mediation is achieved when the indirect effect (path-*a* and *b*) is significant but the direct effect (path- *ć*) is insignificant whereas partial mediation is inferred when direct effect (path- *ć*) in contrast is significant.

Figure 3.1: Simple Mediation Model Adopted from Baron and Kenny (1986)



Total effect **(c = *ć* + ab):** *Is the total effect of CSR on FP*

Indirect effect **(ab = c - ć)**: *Is the indirect effect of CSR on FP through CI*

Direct effect **(ć = c – ab):** *Is the direct effect of CSR on FP*

According to Baron and Kenny (1986), the mediation relationships are established in four steps with the help of three regression equations. To examine the mediating effect of corporate image on the relationship between CSR and FP (objective 2, hypothesis H_{02}), a three stepwise regression analyses based on causal steps approach was conducted and significance of the path coefficients at each step examined.

In **step one (path-*c*),** simple regression analysis was conducted with CSR (independent variable) predicting FP (dependent variable). For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP} = \boldsymbol{\beta_0} + \boldsymbol{c}\mathbf{CSR} + \boldsymbol{\mathcal{E}_1} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \mathbf{(3.2)}$$

Where: $\boldsymbol{c}$ = path coefficient. $\mathbf{FP}$, $\mathbf{CSR}$, $\boldsymbol{\beta_0}$, $\boldsymbol{\mathcal{E}}$ are as defined in 3.8.1, equations 3.1.

In **step two (path-*a*)**, simple regression analysis was conducted with CSR (independent variable) predicting corporate image (intervening variable). For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{CI} = \boldsymbol{\beta_0} + \boldsymbol{a}\mathbf{CSR} + \boldsymbol{\mathcal{E}_1} \quad (\mathbf{3.3})$$

Where: **CI=** corporate image; $\boldsymbol{a}$ = path coefficient. $\mathbf{CSR}, \boldsymbol{\beta_0}, \boldsymbol{\mathcal{E}}$ are as defined in 3.8.1, equations 3.1.

In **step three** and **four (path- *ć*** and ***b*)**, multiple regression analysis was conducted with CSR (independent variable) and corporate image (intervening variable) predicting FP (dependent variable). For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP} = \boldsymbol{\beta_0} + \acute{c}\mathbf{CSR} + \boldsymbol{b}\mathbf{CI} + \boldsymbol{\mathcal{E}_1} \quad (\mathbf{3.4})$$

Where: $\boldsymbol{\acute{c}}$ **&** $\boldsymbol{b}$ = path coefficients; $\mathbf{CI}$ = corporate image. $\mathbf{FP}, \mathbf{CSR}, \boldsymbol{\beta_0}, \boldsymbol{\mathcal{E}}$ are as defined in 3.8.1, equations 3.1.

To confirm mediation analysis further, the product of coefficient approach was used and more specifically bootstrapping, Sobel test and SEM. Bootstrapping is a rigorous computational technique that entails recurrent sampling from the empirical data and assessing the indirect effect in each of the resampled dataset. The key advantage of bootstrapping is that it is capable of testing multi-mediation model; it also has higher power and control over type I error unlike other mediation approaches, and finally, it does not require the empirical data to be perfectly normally distributed (Hayes, 2018). This method (bootstrapping) tests the significance of the indirect effects (ab) using bootstrap confidence interval technique. Sobel test (normal test theory) is another widely used product of coefficient approach that involves calculating the ratio of

indirect effects (ab) to its estimated standard error. The product (ab) is judged to be statistically significant if Z-score computed using Sobel test is $-1.96 \leq Z \geq +1.96$ at 0.05 significance level.

Finally, another popular approach of verifying mediation process is via SEM. Structural equation model is a multivariate technique that utilizes conceptual model, path diagrams and a system of linked regression like equations to capture dynamic and complex relationships among the variables. SEM is widely preferred in mediation analysis because of a number of advantages. First, it is more flexible compared to regression analysis since it is easy to include multiple mediators or outcome variables. Secondly, it allows for easy estimation and interpretation in the mediation analysis.

3.10.3 Corporate Social Responsibility, Firm Size and Firm Performance

There are numerous overlapping reasons for using moderating variables in empirical investigations (Andersson, Cuervo-Cazurra & Nielsen, 2014). Specifying and identifying important and relevant moderating/interaction effects concerning the relations between the independent and the dependent variable is at the center of social science theory and shows the sophistication and maturity of a field of inquiry. Interactions enable researchers to augment their understanding of social and economic relationships by providing conditions under which such relations exist.

As a result, interactions extend well-known linkages to contexts that the original or prior studies ignored. In addition, interactions play an important role in providing more detailed predictions regarding the relationship beyond the simplistic argument of just concluding “it depends”. Nevertheless, establishing a statistically significant influence of interactions between independent and the dependent variables is not enough to be considered as an important contribution to empirical literature. Indeed, interaction

effect needs to be explained and therefore, there must be theoretical arguments outlining why inclusion of such interactions leads into a better theory.

The study adopted four equivalent approaches for probing moderation/interaction effects proposed by Aiken and West (1991). First, was assessing the significance of the change statistics (ΔR^2) by comparing the R^2 with and without the interaction term in the empirical model. An increase in R^2 shows how much the outcome variable is additionally described by the interaction term and therefore can be ascribed to the moderator effect. The second approach was by judging the significance of regression coefficient (β_3) belonging to the interaction term. To further probe and confirm the interaction effect, the study used two other robust approaches, namely: simple slope analysis, which is performed using pick a point approach and Johnson-Neyman procedure which provides the regions of significance.

With simple slope analysis, specific/fixed values of moderating variable (firm size) were chosen, and for each value, the conditional effect of CSR on FP was computed and the significance of these effect were tested. This was further confirmed through visual inspection of the interaction plots. Optimizing visual display of interaction is vital in improving the scientific rigor of the moderation effect. When the moderator (firm size) is quantitative in nature, the most common (arbitrary) values are the sample mean and the other points are situated at one standard deviation (SD) above or below the mean (Hayes, 2018).

Rather than conditioning on the fixed values of firm size (moderator), Johnson-Neyman technique in contrast solves for values of firm size (moderator) which shows the transition between the significant and insignificant effects of CSR on FP (Breur & Curran, 2005). To probe the moderating effect of firm size on CSR-FP relationship,

PROCESS macro developed by Hayes (2018) was used. The chief advantage of PROCESS macro is that it centers the variables and auto generates the interaction term as well as simultaneously testing all the four approaches of evaluating the moderation effects. To assess the moderation effect of firm size on CSR-FP relationship, two general linear models were applied as specified below;

Model (a): **Asset Base as the Moderator**

To establish the moderating effect of asset base (indicator of firm size) on the relationship between CSR and FP (objective 3, hypothesis H_{03a}), multiple regression analysis was conducted. For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\mathbf{CSR} + \boldsymbol{\beta_2}\mathbf{AB} + \boldsymbol{\beta_3}\mathbf{CSR} * \mathbf{AB} + \boldsymbol{\mathcal{E}_1} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (\mathbf{3.5})$$

Where: $\boldsymbol{\beta_1}, \boldsymbol{\beta_2}, \boldsymbol{\beta_3}$ = coefficients; **AB** = asset base; **CSR*AB** = interaction term given by the product of CSR and asset base. **FP**, **CSR**, $\boldsymbol{\beta_0}$, $\boldsymbol{\mathcal{E}}$ are as defined in 3.8.1, equations 3.1.

Model (b): **Sales Turnover as the Moderator**

To establish the moderating effect of sales turnover (indicator of firm size) on the relationship between CSR and FP (objective 3, hypothesis H_{03b}), multiple regression analysis was conducted. For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\mathbf{CSR} + \boldsymbol{\beta_2}\mathbf{ST} + \boldsymbol{\beta_3}\mathbf{CSR} * \mathbf{ST} + \boldsymbol{\mathcal{E}_1} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (\mathbf{3.6})$$

Where: $\boldsymbol{\beta_1}, \boldsymbol{\beta_2}, \boldsymbol{\beta_3}$ = coefficients; **ST** = sales turnover; **CSR*ST** = interaction term given by the product of CSR and sales turnover. $\mathbf{FP}, \mathbf{CSR}, \boldsymbol{\beta_0}, \boldsymbol{\mathcal{E}}$ are as defined in 3.8.1, equations 3.1.

3.10.4 Corporate Social Responsibility, Corporate Image, Size and Firm Performance

To determine the joint effect of CSR, corporate image and size on FP (objective 4, hypothesis H_{04}), multiple linear regression analysis was conducted. For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\mathbf{CSR} + \boldsymbol{\beta_2}\mathbf{CI} + \boldsymbol{\beta_3}\mathbf{AB} + \boldsymbol{\beta_4}\mathbf{ST} + \boldsymbol{\mathcal{E}_1} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (\mathbf{3.7})$$

Where: $\boldsymbol{\beta_1}, \boldsymbol{\beta_2}, \boldsymbol{\beta_3}, \boldsymbol{\beta_4}$ = coefficients; **CI** = corporate image; **AB** = asset base; **ST** = sales turnover. $\mathbf{FP}, \mathbf{CSR}, \boldsymbol{\beta_0}, \boldsymbol{\beta_1}, \boldsymbol{\mathcal{E}}$ are as defined in 3.8.1, equations 3.1.

3.11 Ethical Consideration

Research ethics is a system of moral values concerning the extent to which the study procedures adhere to legal, professional, and sociological obligations to the research participants (Cooper & Schindler, 2014). The researcher solicited informed consent from the study participants. Informed consent implies that research participants are furnished with adequate information regarding the research, are able to fully comprehend the information and have the power of free will, allowing them to consent or decline participating in the research process (Sekeran & Bougie, 2014). The researcher introduced himself to the research respondents by furnishing them with his title and position. In-depth explanations of the purpose and nature of the study and the importance of their participation were clearly explicated. Respondents were given assurance that their participation in the research was voluntary and the inability to

comply would not lead into any punishment. The researcher gave the respondents his contacts in case they needed to contact him in regard to the study and their participation.

The respondents were given assurance that anonymity and confidentiality would be maintained by the researcher. Anonymity occurs when the person carrying out the research is incapable of linking a participant with the information of that particular respondent (Leedy & Ormrod, 2015). Confidentiality on the other hand is maintained by protecting the participants in the study such that individual identities cannot be linked to the information availed, and are never divulged publicly (Sekaran & Bougie, 2013). The researcher anticipated that the fear of victimization might lead to unwillingness on the part of the respondents to candidly respond to the items on the questionnaire. The questionnaire was designed in such a way that personal details could not be captured. The researcher refrained from deliberating the responses with other parties. Apart from the researcher, only the research supervisors were given access to the filled questionnaires and raw data.

The integrity of scientific knowledge was protected by using credible data. Academic veracity was observed by avoiding plagiarism through presentation of individual work and ideas and acknowledging the prior works of other scholars. Various sources that were widely consulted and all individuals who largely contributed to the study were also acknowledged. The researcher also reported the actual research findings. Finally, the research participants were not in any way influenced in their responses to support views held by the researcher.

CHAPTER FOUR

DESCRIPTIVE DATA AND PRESENTATION

4.1 Introduction

Chapter four presents the study findings from descriptive statistics and diagnostic tests. It entails a detailed review of questionnaire response rate, reliability and validity tests. Descriptive statistics of CSR, corporate image, size and performance was undertaken using measures of central tendency (mean) measures of dispersion (standard deviation, minimum values and maximum values) and measures of distribution (skewness and kurtosis). Chapter four also covers both diagnostic tests that conform to the statistical assumptions of multiple regressions using cross-sectional data (normality, linearity, homogeneity of variance and multicollinearity). Furthermore, correlation analysis was carried out using Pearson's product moment correlations. To successfully carry out this analysis, data drawn from 61 firms listed at the NSE was employed as shown in appendix III.

4.2 Questionnaire Response Rate

The questionnaire response rate is the proportion of completed surveys by the eligible participants in an empirical inquiry (Mohajan, 2018). It is a mechanism of determining the success of data collection effort as well as obtaining an initial idea about the quality of the gathered data. This study carried out a census survey of 61 firms listed at the NSE spread across 11 segments of the economy (appendix III). A total of 61 questionnaires were electronically distributed via Google forms to all listed firms at NSE. To ensure high questionnaire response rate, numerous phone calls were made and emails were equally sent to the targeted respondents. Out of 61 questionnaires administered, only 54 responses were obtained. The online data collection instruments

were checked for completeness. A total of 4 questionnaires were discarded due to some missing data and this reduced the number of valid responses to 50 which constituted 82% of the questionnaire response rate. This compares well with prior studies which were conducted using similar methodology for instance Kobuthi (2018), 87%; Gitahi (2017), 93% and Chemwile (2017), 80%. Table 4.1 gives a summary of the questionnaire response rate.

Table 4.1: Response Rate

Response Rate	Frequency	Percentage
Response Rate	50	82%
Non-response	11	18%
Total	61	100%

Source: Research Findings (2021)

4.3 Validity and Reliability Tests

The evidence of reliability and validity are preconditions to ensure the quality and integrity of a research measurement instrument (Sounders *et al.,* 2013). The accuracy, credibility and dependability of data largely depends on the nature of validity and reliability of data collection tools. Reliability and validity enhances transparency and reduce researcher's bias in empirical investigations. The inability to assess reliability and validity of a research instrument often makes it difficult to delineate the effect of measurement errors on the theoretical relationships under investigation (Cooper & Schindler, 2014).

4.3.1 Validity Test

Three main types of validity were tested: content validity, face validity and construct validity. To achieve content validity; knowledgeable experts in the area of the study were relied upon in improving the questionnaire design by providing guidance in rewording, decomposition of some items and addition of relevant items as well. The

reviewing, vetting and alignment of the research instrument was intended to achieve the desired research objectives. In order to attain face validity, the researcher held discussions with knowledgeable experts to ascertain the suitability of items in the research instrument in meeting the research objectives.

To achieve construct validity; a questionnaire whose contents and constructs reflect the theoretical underpinnings of the variables under study was developed. Specifically, the indicators used to proxy CSR were based on internationally accepted CSR guidelines (Global Reporting Initiative-GRI). The constructs employed to operationalize corporate image were developed based on existing globally accredited indices such as reputation quotient and Reptrak-TM quotient developed by Fombrun *et al.* (2000). The metrics used to surrogate performance measures were constructed based on balance score card (BSC) parameters which is a popular benchmark for measuring financial and non-financial performance aspects of an organization. In sum, all the constructs were developed using multi-item scales adopted from prior empirical works. These items however were modified to fit the objectives of the current study.

4.3.2 Reliability Test

Three types of reliability were tested, namely: stability, equivalence as well as internal consistency. To achieve stability and equivalence reliability, factual questions were used in the study and analogous instructions were issued to all the respondents. On the other hand, internal consistency was measured using Cronbach's alpha coefficients which range from 0 to 1. Cronbach's reliability alpha value (α) was calculated to validate the magnitude of reliability or consistency level among items as presented in Table 4.2.

Table 4.2: Summary of alpha (α) Reliability Coefficients

Variable	Indicators	Number of Items (N)	Cronbach's Alpha (α)	Decision
Corporate Social Responsibility	Environment, community, employees, customers, investors and suppliers	52	0.970	Excellent reliability
Corporate Image	Emotional appeal; quality of products/services; vision and leadership and innovation	20	0.961	Excellent reliability
Non-financial Performance	Learning and growth; customer satisfaction and internal business processes	13	0.735	High reliability

Source: Research Findings (2021)

A list of the variables that were used in the survey instrument is illustrated in Table 4.2. The composite reliability of each variable is well above the minimum conventional threshold value of 0.7. This confirms the acceptable benchmark for internal consistency of the questionnaire. CSR recorded the highest Cronbach's alpha coefficient (α = 0.970), followed by corporate image (α = 0.961) while non-financial performance documented the lowest Cronbach's alpha coefficient (α = 0.735). As a result, the research instrument was considered to reliable enough for carrying out the survey.

4.4 Descriptive Statistics

Descriptive statistics on corporate social responsibility, corporate image, firm size and performance are provided in Table 4.3 to 4.7.

4.4.1 Corporate Social Responsibility

CSR was conceptualized as the predictor variable in this study. This variable was measured using six indicators, namely: environmental, community, employee, customer, investor and supplier dimensions. A total of seventy-two items (statements) were used to operationalize CSR. These items were rated by respondents based on a 5-point Likert scale ranging from 1 "Strongly Disagree" to 5 "Strongly Agree. From the gathered data, descriptive statistics such as minimum values, maximum values, mean,

standard deviation, skewness and kurtosis were computed and results are presented as indicated in Table 4.3.

Table 4.3: Corporate Social Responsibility

Indicator	N	Min	Max	Mean	S.D	SK	KU
Environment	50	2	5	4.060	0.939	-0.862	0.346
Community	50	1	5	3.890	1.906	-0.707	-0.374
Employee	50	2	5	3.900	0.961	-0.631	-0.131
Customer	50	2	5	4.380	0.831	-1.040	1.956
Investors	50	2	5	4.240	0.906	-1.061	0.541
Suppliers	50	2	5	4.203	0.881	-0.873	-0.487
Aggregate Mean	**50**	**2**	**5**	**4.214**	**0.609**	**-0.870**	**0.734**

N = Number of observations; SD = Standard deviation; KU= Kurtosis; SK = Skewness
Source: Research Findings (2021)

The aggregate mean score of attributes (statements) describing environmental dimension score was high implying that respondents agreed that their firms had integrated environmental concerns into their core activities (Min = 2, Max = 5, M = 4.06, SD = 0.939, SK = -0. 862, KU = 0.346). The distribution was moderately skewed to the left and flatter at the same time. Individual scores for all the attributes used to proxy the indicator assumed the lowest score of 2 and the highest score of 5.

Community dimension scores indicate that on average, respondents agreed their organizations had incorporated community concerns into their corporate undertakings (Min = 1, Max = 5, M = 3.890, SD = 1.906, SK = -0.707, KU = -0.374). The individual scores for all the attributes used to operationalize community dimension assumed different values ranging from a minimum of 1 to a maximum of 5. The distribution was approximately asymmetrical and platykurtic.

In regard to employee dimension scores, the respondents on average agreed that employee CSR concerns forms an integral part of organizations corporate activities (Min = 2, Max = 5, M = 3.900, SD = 0.961, SK = -0.631, KU = -0.131). The individual

scores for all the items used to measure employee dimension assumed the lowermost value of 2 and the uppermost value of 5. The distribution was approximately symmetrical and slightly flatter.

The summative mean score of features (statements) depicting customer dimension score was high signifying that respondents agreed that their corporations had incorporated customer concerns into their corporate strategies (Min = 2, Max = 5, M = 4.380, SD = 0.831, SK = -1.040, KU = 1.956). Individual scores for the entire statements utilized to capture customer dimension assumed the lowest value of 2 and a maximum value of 5. The distribution was highly skewed to the left and platykurtic.

The mean score for all the attributes used to operationalize investor dimension was (Min = 2, Max = 5, M = 4.240, SD = 0.906, SK = -1.061, KU = 0.541), an indication that respondents agreed that their firms had embraced investor-related CSR practices. The data was negatively skewed and platykurtic whereas individual scores for the entire attributes used to proxy the investor dimension on average assumed scores ranging from a minimum of 2 to a maximum of 5.

The distribution for aggregate supplier dimension was slightly skewed to the left with marginal negative kurtosis. The average mean score for the seven statements used to operationalize supplier dimension was (Min = 2, Max = 5, M = 4.203, SD = 0.881, SK = -0.873, KU = -0.487) implying that respondents agreed that their organizations had taken into consideration supplier CSR related schemes. The scores for individual attributes ranged from the lowermost average score of 2 to uppermost score of 5. The distribution was negatively skewed with positive kurtosis.

In overall, the mean score for the CSR composite score (Min = 2, Max = 5, M = 4.214, SD = 0.609, SK = -0.087, KU = 0.734) was high implying that respondents agreed that their firms had implemented CSR practices as part of their principal corporate strategy. The individual indicators of CSR assumed the lowest score of 2 and the highest score of 5. The distribution was fairly skewed to the left and platykurtic at the same time.

4.4.2 Corporate Image

Corporate image was used as a mediating variable in this study. A set of four indicators, namely: emotional appeal; quality of products/services; vision and leadership and innovation were used to proxy corporate image. A total of twenty attributes were utilized to operationalize corporate image. These items were rated by respondents based on a 5-point Likert scale ranging from 1 "Strongly Disagree" to 5 "Strongly Agree". From the gathered data, descriptive statistics such as minimum score, maximum score, mean, standard deviation, skewness and kurtosis were computed and results are presented as indicated in Table 4.4.

Table 4.4: Corporate Image

Indicator	**N**	**Min**	**Max**	**Mean**	**S.D**	**SK**	**KU**
Emotional Appeal	50	1	5	4.190	0.973	-1.382	1.880
Quality of Products/Services	50	1	5	4.040	0.968	-1.504	0.924
Vision and Leadership	50	2	5	4.240	0.839	-1.001	0.787
Innovation	50	2	5	4.100	1.015	-0.975	0.117
Aggregate Mean Score	**50**	**2**	**5**	**4.130**	**0.948**	**-1.087**	**0.879**

N = Number of observations; SD = Standard deviation; KU= Kurtosis; SK = Skewness
Source: Research Findings (2021)

As indicated in Table 4.4, the mean score of four items denoting emotional appeal was high signifying that respondents agreed that their firms emotionally appealed to multiple constituents (Min = 1, Max = 5, M = 4.190, SD = 0.973, SK = -1.382, KU = 1.880). Data distribution was negatively skewed with a moderate positive kurtosis.

These items assumed diverse scores ranging from the lowest score of 1 to the highest score of 5.

The overall distribution for quality of products/services metric was highly skewed to the left and slightly peaked. The average mean score for the six attributes used to operationalize this construct was (Min = 1, Max = 5, M = 4.040, SD = 0.968, SK = -1.504, KU = 0.924) inferring that respondents agreed that the products/services of their firms were of superior quality. The scores for individual attributes ranged from the lowermost average score of 1 to uppermost score of 5.

Similarly, the respondents agreed that their organizations had clear vision and exemplary leadership with an average mean score of (Min = 2, Max = 5, M = 4.240, SD = 0.839, SK = -1.001, KU = 0.787). The individual scores for all the statements used to measure the indicator assumed the lowermost score of 2 and the uppermost score of 5. The distribution was fairly symmetrical with a considerable positive kurtosis.

The average innovation scores suggest that respondents agreed that their organizations were innovative in their operations (Min = 2, Max = 5, M = 4.100, SD = 1.015, SK = -0.975, KU = 0.117). The individual scores for five items used to proxy innovation assumed different values ranging from a minimum score of 2 to a maximum score of 5. The distribution was negatively skewed with a modest positive kurtosis.

In overall, the average composite score for the corporate image (Min = 2, Max = 5, M = 4.130, SD = 0.948, SK = -1.087, KU = 0.879) was relatively high suggesting that respondents agreed that their firms had favourable corporate image capital. The specific indicators of corporate image assumed the lowest score of 2 and the highest score of 5. The distribution was fairly symmetrical with a modest positive kurtosis.

4.4.3 Firm Size

Firm size was conceptualized as the moderating variable. This variable was proxied using two metrics, namely: asset base and sales. Descriptive statistics such as minimum and maximum scores, mean, standard deviation, skewness and kurtosis of firm size are as depicted in Table 4.5.

Table 4.5: Firm Size

Indicator	N	Min	Max	Mean	S.D	SK	KU
Asset Base	50	19.300	28.969	23.887	2.194	0.064	0.662
Sales Turnover	50	18.000	26.755	22.444	1.849	-0.293	0.662

N = Number of observations; SD = Standard deviation; KU= Kurtosis; SK = Skewness
Source: Research Findings (2021)

As presented in Table 4.5, the aggregate average value for the asset base during the fiscal period 2014 to 2018 for the listed firms at NSE was 23.887. The standard deviation for total assets was 2.194 which is an indication of minimal variance between the asset bases among the listed firms. The lowest average score for asset base was 19.300 while the highest score was 28.969. The distribution was approximately symmetrical with minimal positive kurtosis.

The lowest average score for sales turnover during the year 2014 to 2018 was 18.000 whereas the highest score was 26.755. The overall mean score for sales turnover was 22.444 with standard deviation of 1.849 implying marginal variation in the revenues generated by the listed firms from their business operations. Sales turnover was approximately asymmetrical with a modest positive kurtosis.

4.4.4 Firm Performance

Firm performance was the outcome variable in this empirical investigation. This variable largely drew its metrics from balanced score card popularized by Kaplan and Norton (2008). The study adopted both financial and non-financial metrics. Financial

performance was operationalized using PBV ratio. Non-financial performance was measured using three indicators, namely: learning and growth; customer satisfaction and internal business processes. Overall FP was computed by combining financial and non-financial indicators into one composite score.

4.4.4.1 Financial Performance

The descriptive statistics relating to financial performance is presented in Table 4.6. Price to book value ratio (PBV); a market based measure was used to operationalize financial performance. Descriptive statistics such as the minimum and maximum scores, mean, standard deviation, skewness and kurtosis of the indicator is depicted in Table 4.5.

Table 4.6: Financial Performance

Indicator	N	Min	Max	Mean	S.D	SK	KU
Financial Performance	50	-3.630	3.070	0.967	0.985	-1.685	8.919

N= Number of observations; SD = Standard deviation; KU= Kurtosis; SK = Skewness
Source: Research Findings (2021)

As demonstrated in Table 4.6, the overall average score for price to book value ratio was 0.967. The implication is that on average, majority of the firms are moderately overvalued. However, that standard deviation of 0.985 signifies that there was a modest variation in terms of price to book value among the listed firms. This is evidenced by the lowest score of -3.630 and the extreme score of 3.070. The distribution is moderately skewed to the left with a positive kurtosis.

4.4.4.2 Non-financial Performance

Non-financial performance was measured using three indicators namely; learning and development; customer satisfaction and internal business processes. A total of thirteen attributes were used to measure this construct and was constructed based on the pre-

existing metrics of balanced score card. On a scale of 1 “Strongly Disagree” to 5 “Strongly Agree”, respondents were requested to rate the attributes. Descriptive statistics such as minimum score, maximum score, mean, standard deviation, skewness and kurtosis were computed and results are presented in Table 4.7.

Table 4.7: Non-financial performance

Indicator	N	Min	Max	Mean	S.D	SK	KU
Learning and Growth	50	2	5	3.650	0.929	-0.132	-0.615
Customer Satisfaction	50	2	5	3.640	0.935	-0.161	-0.359
Internal Business Processes	50	2	5	3.730	0.914	-0.227	-0.706
Aggregate Mean Score	**50**	**2**	**5**	**3.670**	**0.926**	**-0.172**	**-0.544**

N = Number of observations; SD = Standard deviation; KU= Kurtosis; SK = Skewness
Source: Research Findings (2021)

As indicated in Table 4.7, the mean score of four statements delineating learning and growth dimension was relatively high suggesting that respondents concurred that their firms had embraced learning and growth as an integral component of performance (Min = 2, Max = 5, M = 3.650, SD = 0.929, SK = -0.132, KU = -0.615). Individual scores for all statements (attributes) assumed the lowest score of 2 and the highest score of 5. The distribution was approximately symmetrical with a moderate negative kurtosis.

In regard to customer satisfaction scores, the respondents agreed that customers were satisfied with the firm (Min = 2, Max = 5, M = 3.640, SD = 0.935, SK = -0.161, KU = -0.359). The individual scores for all the items assumed the lowermost score of 2 and the uppermost score of 5. The distribution was approximately symmetrical with a moderate negative kurtosis.

The mean score of attributes describing internal business process was relatively high implying that respondents agreed that their corporations had incorporated internal business processes into their corporate strategies (Min = 2, Max = 5, M = 3.730, SD = 0.914, SK = -0.227, KU = -0.706). Individual scores for the entire statements assumed

the lowest value of 2 and the highest value of 5. The distribution was slightly skewed to the left with marginal negative kurtosis.

In sum, the overall distribution of non-financial composite score was fairly symmetrical (SK = -0.172) with a moderately negative kurtosis (KU = -0.544) which is an indication that data was approximately normally distributed. The summative mean for the entire set of non-financial performance indicators was (M = 3.670) with a standard deviation of (SD = 0.926). This implies that respondents on average agreed that the firm was doing fairly well in learning and growth, customer satisfaction and internal business processes. The lowest score for the individual indicators was 2 whereas the highest score was 5.

Financial and non-financial indicators were combined to form firm performance composite score. However, financial metrics are in form of continuous scale whereas non-financial metrics are in form of an interval scale. To make it possible to combine these two varying scales, financial performance measure was first converted from continuous to interval scale by recoding using SPSS. Eventually, a composite score was computed by adding financial and nonfinancial performance indicators and dividing the total score by two. This was done with the aid of SPSS.

4.5 Diagnostic Tests

Numerous diagnostic tests were carried out to ensure that the basic statistical assumptions of regression analysis were met. The tests conducted included normality, linearity, homogeneity of variance and multicollinearity tests.

4.5.1 Normality Test Results

Normality test is used in to determine whether a dataset is modeled for normal distribution. Normal or nearly normal distribution is a fundamental condition of many statistical functions. Normally distributed data generally assumes a symmetrical or bell shaped curve with higher frequency of scores in the midpoint and lower frequencies towards the extremes. This study used Shapiro-Wilk test to assess normality.

Table 4.8: Shapiro-Wilk W Test for Normal Data

Variable	N	W	V	Z	Prob>z
CSR	50	0.953	2.189	1.670	0.050
CI	50	0.873	5.962	3.808	0.000
AB	50	0.991	0.421	-1.844	0.967
ST	50	0.986	0.639	-0.956	0.830
FP	50	0.921	3.684	2.781	0.003

Source: Research Findings (2021)

Shapiro-Wilk W test for normality usually ranges from 0 to 1 with the p-value > 0.05 signifying that the data is normally distributed. As tabulated in Table 4.8, the p-values of CSR, asset base and sales turnover are equal or greater than 0.05 thus confirming that the data was normally distributed. In contrast, the p-values for corporate image and FP were less than 0.05 which provides little evidence of normally distributed data.

4.5.2 Linearity Test

Linearity is an important statistical assumption of regression analysis which implies the constant magnitude of variation between two variables for the entire range of scores. Non-linear relationships between the variables often underestimate the outcome of regression analysis. Linearity was evaluated using ANOVA test as indicated in Table 4.9.

Table 4.9: ANOVA Test of Linearity

VARIABLES			SS	df	MS	F	p
FP and CSR	Between Groups	(Combined)	11.647	48	0.243	0.620	0.790
		Linearity	3.618	1	3.618	9.246	0.202
		Deviation from Linearity	8.029	47	0.171	0.437	0.863
	Within Groups		0.391	1	0.391		
	Total		**12.038**	**49**			
FP and CI	Between Groups	(Combined)	9.004	26	0.346	2.625	0.011
		Linearity	4.599	1	4.599	34.859	0.000
		Deviation from Linearity	4.405	25	0.176	1.336	0.244
	Within Groups		3.034	23	0.132		
	Total		**12.038**	**49**			
FP and AB	Between Groups	(Combined)	12.037	48	0.251	339.053	0.043
		Linearity	0.001	1	0.001	1.098	0.485
		Deviation from Linearity	12.037	47	0.256	346.244	0.043
	Within Groups		0.001	1	0.001		
	Total		**12.038**	**49**			
FP and ST	Between Groups	(Combined)	12.012	48	0.250	9.398	0.254
		Linearity	0.043	1	0.043	1.599	0.426
		Deviation from Linearity	11.969	47	0.255	9.564	0.252
	Within Groups		0.027	1	0.027		
	Total		**12.038**	**49**			

Source: Research Findings (2021)

The study computed the ANOVA table for both linear and nonlinear components by pairing the study variables as shown in Table 4.9. The linearity is assumed to be present if the p-value of the deviation from the linearity of the linear F test is greater than 0.05 ($p > 0.05$). From the estimation results, CSR, corporate image and sales turnover when separately paired with FP revealed significant linearity whereas corporate image on the other hand when paired with financial performance showed nearly significant linearity ($p = 0.043$).

4.5.3 Homogeneity of Variance Test

Breusch-Pagan test was used to test homogeneity of variances. It assumes that the variance of the error term is a function of either the predicted value of the outcome variable or some set of regressors. The results of Breusch-Pagan test are presented in Table 4.10.

Table 4.10: Heteroscedasticity Test

Breusch-Pagan/ Cook-Weisberg Test for Heteroscedasticity Ho: Constant Variance			
Model	chi2(1)	Prob > chi2	Conclusion
FP	7.23	0.007	Heteroscedasticity present

Source: Research Findings (2021)

The null hypothesis in the test is that error terms have no constant variances (homoscedastic). For homoscedasticity to be achieved, the Chi square statistical p-values should be greater than 0.05. There was evidence of heteroscedasticity while modeling the variance of the residuals (errors) as a function of FP $\{\chi^2(1) = 7.23, p < 0.05\}$. Owing to the presence of heteroscedasticity, the corrective measure carried out was running regression analysis with robust standard errors using Huber-White (sandwich errors) technique. This method uses different techniques to compute the standard error of each beta coefficient, therefore resulting into a distinct p-value and confidence interval for each coefficient.

4.5.4 Multicollinearity Test

The extensively used statistical tests for identifying multicollinearity are tolerance value and variance inflation factor (VIF). Tolerance value is the proportion of variance in the predictor variable that is not explained by other explanatory variables. On the other hand, variance inflation factor (VIF) is the inverse or simply reciprocal of

tolerance value (Sekeran & Bougie 2013). This study utilized VIF and tolerance value to evaluate multicollinearity and the outcome is as presented in Table 4.11.

Table 4.11: Multicollinearity Test Results

Variable	VIF	Tolerance (1/VIF)
CSR	3.50	0.286
CI	3.50	0.286
AB	2.02	0.494
ST	2.02	0.494
Mean VIF	**2.76**	

Source: Research Findings (2021)

As suggested by Cooper and Schindler (2014), the acceptable conventional threshold levels for VIF and tolerance value are < 10 and > 0.1 respectively. Table 4.11 shows the VIF and tolerance values for the entire explanatory variables. The VIF for the predictor variables (CSR = 3.50; corporate image = 3.50; asset base = 2.02 and sales turnover = 2.02) were < 10 implying that there was no multicollinearity or high degree of association among the predictor variables. Similarly, the tolerance values for all the regressors (CSR = 0.286; corporate image = 0.286; asset base = 0.494 and sales turnover = 0.494) were > 0.1 showing no evidence of multicollinearity among the explanatory variables.

4.6 Correlation Analysis

Correlation analysis denotes linear relationship or association between binary or more quantitative variables (Kothari, 2018). Specifically, it measures the direction (positive and negative) and the strength (intensity) of association between the variables. Correlation coefficient is a summary measure that signifies the magnitude of statistical relationship between two ratio or interval level variables and is commonly measured using Pearson's product moment coefficient. Pearson's product moment coefficient sample statistic value is known as (*r*) and is computed on the basis of three assumptions, first, variables are normally distributed; secondly, variables exhibit linear relationship

and finally variables are independent of each other. Statistic *r* attempts to draw a line of best fit through the data of the binary variables.

Typically, correlation coefficient (r) assumes values ranging from -1, through 0, to +1 which affects its statistical interpretation. A correlation coefficient of -1 ($r < 0$) indicates a perfect linear negative (inverse) association between two variables implying that as the value of one variable increases, the value of the other variable decreases. A correlation coefficient of 0 ($r = 0$) signifies existence of non-linear relationship between two continuous variables suggesting that as the value of one variable increases, the value of the other variable neither increases nor decreases. A correlation coefficient of +1 ($r > 0$) indicates a perfect linear positive association between two variables and this infers that as the value of one variable increases, the value of the other variable equally increases. While computing a correlation coefficient, it is important to test for significance at a level of 0.01 and 0.05 which is in tandem with the vast of prior empirical works.

However, correlation does not provide sufficient evidence in predicting the cause and effect linkage among the study variables as it is the case with the multivariate statistical analyses. Pearson's correlation coefficient was used to investigate the link between CSR, corporate image, size and performance of firms listed at the NSE. This estimation technique was chosen owing to the variation in units and scale of measurement of the variables employed in this study. The correlation matrix for the criterion and predictor variables is illustrated in Table 4.12.

Table 4.12: Correlation Analysis Results

Variable	CSR	CI	AB	ST	FP
CSR	1				
CI	0.845*	1			
AB	-0.010	0.006	1		
ST	0.004	0.001	0.710*	1	
FP	0.549*	0.618*	0.008	0.060	1

Source: Research Findings (2021)

** Implies significance of correlation at 0.05 level in a two tailed test*
Where: CSR = Corporate Social Responsibility; CI = Corporate Image; AB = Asset Base; ST = Sales Turnover; FP = Firm Performance

Table 4.12 shows the correlations between various variables. Corporate image is strongly and significantly positively correlated with CSR ($r = 0.845$, $p < 0.05$). CSR ($r = -0.010$, $p = > 0.05$) was weakly and insignificantly negatively correlated with asset base while and corporate image ($r = 0.006$, $p > 0.5$) was weakly and insignificantly positively correlated with asset base. Sales turnover was weakly and insignificantly positively correlated with both CSR ($r = 0.004$, $p > 0.05$) and corporate image ($r = 0.001$, $p > 0.05$), but in contrast strongly and significantly positively correlated with asset base ($r = 0.\ 0.710$, $p < 0.05$). FP correlated differently with other variables. CSR ($r = 0.549$, $p < 0.05$) and corporate image ($r = 0.618$, $p < 0.05$) were moderately and significantly positively correlated with FP while in contrast, asset base ($r = 0.008$, $p > 0.05$) and sales turnover ($r = 0.060$, $p > 0.05$) were weakly and insignificantly positively correlated with FP. Since the correlation coefficient between CSR and corporate image as well as sales turnover and asset base were above 0.7, VIF and tolerance values were used to confirm whether multicollinearity existed among the paired variables/indicators.

4.7 Chapter Summary

This chapter covers the questionnaire response rate, validity and reliability test, descriptive statistics, diagnostic tests and correlation analysis. The questionnaire response rate was high (82%) thus comparing well with prior empirical investigations that adopted analogous methodology. The study achieved content, face and construct validity. All the items used to measure the variables had a composite reliability that exceeded the conventional threshold of 0.7 while employing Cronbach's Alpha coefficient of measuring internal consistency.

On the basis of the gathered data, descriptive statistics such as minimum and maximum values, mean, skewness and kurtosis were computed for all the study variables, with CSR (Min = 2, Max = 5, M = 4.21, S.D = 0.61, SK = -0.87, KU = 0.73), corporate image (Min = 2, Max = 5, M = 4.13, S.D = 0.95, SK = -1.09, KU = 0.88), asset base (Min = 19.30, Max = 28.97, M = 23.89, S.D = 2.19, SK = -0.87, KU = 0.73), sales turnover (Min = 18, Max = 26.76, M = 22.44, S.D = 1.85, SK = -0.29, KU = 0.66), financial performance (Min = -3.63, Max = 3.07, M = 0.97, S.D = 0.99, SK = -1.69, KU = 8.92) and non-financial performance (Min = 2, Max = 5, M = 3,67, S.D = 0.93, SK = -0.17, KU = -0.54).

Regarding the diagnostic tests, CSR, asset base and sales turnover data was normally distributed whereas in contrast, the data utilized concerning corporate image and FP was not normally distributed. All the variables utilized in the study (CSR, corporate image, firm size and FP) satisfied the assumption of linearity and multicollinearity with exception of homoscedasticity. Correlation analysis results obtained by pairing study variables displayed diverse findings with some being positively and significantly correlated, some being positively and insignificantly correlated while some negatively and insignificantly correlated.

CHAPTER FIVE

HYPOTHESIS TESTING AND DISCUSSION OF FINDINGS

5.1 Introduction

The presentation and interpretation of findings is comprehensively articulated in chapter five. The first null hypothesis (H_{01}) investigated the direct relationship between CSR and FP. The second null hypothesis (H_{02}) tested whether corporate image mediated CSR-FP relationship. The third null hypothesis (H_{03}) examined the moderating influence of firm size on the CSR-FP relationship. Lastly, the fourth null hypothesis (H_{04}) tested the joint effect of CSR, corporate image and firm size on performance. The basis to reject or fail to reject the null hypothesis was informed by the p-values. Hypothesis testing was carried out at 95% confidence level ($\alpha = 0.05$) and alpha-values of less than 0.05 led into rejection of null hypothesis whereas a $p > 0.05$ resulted into failure to reject the null hypothesis. Interpretation of empirical findings was based on adjusted coefficient of determination (Adjusted R^2), F-statistic (F), Beta statistic (β) and t-values (t).

The coefficient of determination (R^2) usually specifies the variation in the outcome variable that is empirically explained by a whole set of the predictor variables. However, the major limitation of (R^2) in analyzing the goodness of fit is that it constantly inflates when additional explanatory variables are introduced into the estimation model even if these variables are weakly associated with the outcome variable. To overcome this shortcoming, adjusted R^2 is preferred and normally makes comparison of the explanatory power of the regression models that comprises of distinct number of predictor variables. Beta coefficient (β) is the amount of change in the response variable for every unit change in the explanatory variable when all other predictor variables are

held constant. Finally, t-statistic denotes significance of individual variables in regression analysis.

5.2 Corporate Social Responsibility and Firm Performance

The first objective was to investigate the relationship between CSR and FP of firms listed at the NSE. CSR composite score was obtained by aggregating the individual scores of environmental, community, employee, customer, investor and supplier dimensions into an index. Overall FP was computed by combining both financial and non-financial metrics into a single composite score. The OLS regression analysis was employed as the principal estimation technique for assessing CSR-FP relationship. The null hypothesis (H_{01}) was tested as specified below;

H_{01}: The relationship between corporate social responsibility and performance of firms listed at NSE is not significant.

For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\mathbf{CSR} + \boldsymbol{\varepsilon_1}$$

Note: The variables are as delineated in estimation model. $(\mathbf{3.1})$

Table 5.1: Corporate Social Responsibility and Firm Performance

FP	β	SE	t	p	LLCI	ULCI
Constant	1.881	0.416	4.52	0.000	1.043	2.718
CSR	0.456	0.100	4.55	0.000	0.254	0.657
R^2	0.301					
Adj. R^2	0.287					
MSE	0.419					
F (1, 48)	20.68					
Prob > F	0.000					
N	50					

Source: Research Findings (2021)

Table 5.1 shows the empirical findings relating to the estimated effect of CSR on FP. The overall regression model was significant as confirmed by the adjusted $R^2 = 0.287$, $F(1, 48) = 20.68$, $p < 0.05$. The adjusted coefficient of determination (R^2) reveals that

CSR simply explained 28.7% of the variance in FP while the remaining 71.3% was predicted by other explanatory variables omitted in the empirical model. The regression coefficient ($\beta = 0.456$, $t = 4.55$, $p < 0.05$) shows that CSR was a significant positive predictor of FP. Based on the estimated results, it can therefore be concluded that there was significant positive relationship between CSR and FP leading to eventual rejection of null hypothesis one (H_{01}).

5.3 Corporate Social Responsibility, Corporate Image and Performance

The second objective was to examine the mediating influence of corporate image on the relationship between CSR and performance of firms listed at the NSE. CSR index was developed based on six dimensions (environment, community, employees, and customer, investor and supplier dimensions). Corporate image composite score was constructed by combining four indicators, namely: emotional appeal; quality of products or services; vision and leadership and innovation. Moreover, both financial and non-financial metrics were combined to form FP composite score. The null hypothesis (H_{02}) was tested as specified below;

H_{02}: The mediating effect of corporate image on the relationship between corporate social responsibility and performance of firms listed at NSE is not significant.

For the purpose of estimation, general linear models are specified as follows;

$$\mathbf{FP} = \boldsymbol{\beta_0} + \boldsymbol{c}\mathbf{CSR} + \boldsymbol{\mathcal{E}_1}$$

Note: The variables are as delineated in estimation model. $(\mathbf{3.2})$

$$\mathbf{CI} = \boldsymbol{\beta_0} + \boldsymbol{a}\mathbf{CSR} + \boldsymbol{\mathcal{E}_1}$$

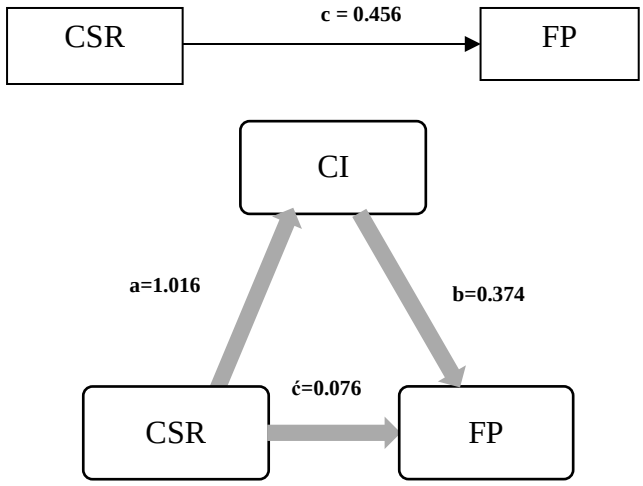
Note: The variables are as delineated in estimation model. $(\mathbf{3.3})$

$$\mathbf{FP} = \boldsymbol{\beta_0} + \acute{c}\mathbf{CSR} + \boldsymbol{b}\mathbf{CI} + \boldsymbol{\mathcal{E}_1}$$

Note: The variables are as delineated in estimation model. $(\mathbf{3.4})$

The conceptual model presented in Figure 5.1 displays path coefficients of direct, indirect and total effects in the mediation process. These regression weights were obtained from Table 5.2, 5.3 and 5.4.

Figure 5.1 : Path coefficients for Total, Indirect and Direct Effect of CSR on FP



Where: CSR = Corporate Social Responsibility; CI = Corporate Image; FP = Firm performance

Total effect **(c = *ć* + ab):** *Is the total effect of CSR on FP*

Indirect effect **(ab = c - ć)**: *Is the indirect effect of CSR on FP through CI*

Direct effect **(ć = c – ab):** *Is the direct effect of CSR on FP*

5.3.1 Corporate Social Responsibility and Performance (path-*c*)

Path-***c*** shows the total effect of CSR on FP based on the output of the PROCESS macro which represents the 1st step of mediation using casual steps approach proposed by Baron and Kenny (1986). The estimation results confirms that CSR significantly explains the variation in FP as shown by adjusted $R^2 = 0.287$, $F(1, 48) = 20.622$, $p < 0.05$. This is validated by adjusted coefficient of determination (R^2) which indicates that 28.7% of variation in FP is accounted for by CSR while the remaining 71.3% is explained by other explanatory variables ignored in the empirical model. The slope for total effect (path-*c*) in the mediation model ($\beta = 0.456$, $t = 4.541$, $p < 0.05$) suggest that

CSR significantly predicted FP hence satisfying the 1st condition of the mediation process using causal steps strategy.

Table 5.2: Estimation Results Along Path-*c*, Corporate Social Responsibility and Performance

FP	β	SE	t	p	LLCI	ULCI	
Constant	1.882	0.417	4.519	0.000	1.045	2.720	
CSR	0.456	0.100	4.541	0.000	0.254	0.657	**Path-*c***
R^2	0.301						
Adj. R^2	0.287						
MSE	0.175						
F(1, 48)	20.622						
Prob > F	0.000						

Source: Research Findings (2021)

5.3.2 Corporate Social Responsibility and Corporate Image, Path-*a*

Path-*a* represents the regression weight showing the effect of CSR on corporate image. The findings of path-*a* is presented in Table 5.3.

Table 5.3: Estimation Results Along Path-a, CSR and Corporate Image

CI	β	SE	t	p	LLCI	ULCI	
Constant	-0.045	0.386	-0.116	0.908	-0.821	0.723	
CSR	1.016	0.093	10.93	0.000	0.829	1.203	**Path-*a***
R^2	0.713						
Adj. R^2	0.708						
MSE	0.151						
F(1, 48)	119.474						
Prob > F	0.000						
N	50						

Source: Research Findings (2021)

The estimation model in overall was significant {Adjusted R^2 = 0.708, F (1, 48) = 119.474, $p < 0.05$}. This is corroborated by higher value of adjusted coefficient of determination (R^2) which suggests that 70.8% of disparity in corporate image is explained by CSR whereas the remaining 29.2% is accounted for by other variables omitted in the empirical model. The regression coefficient obtained along path-*a* (β = 1.016, t = 10.93, $p < 0.05$) indicate that CSR positively and significantly predicted

corporate image hence satisfying the 2nd condition of the mediation process using causal steps strategy popularized by Baron and Kenny (1976).

5.3.3 Direct and Indirect Effects of the Estimation Model (path-*b* and path-*ć*)

Path-*b* shows the effect of corporate image on FP while path-*ć* represents the direct effect of CSR on FP as illustrated in Table 5.4. Empirical results established significant collective influence of CSR and corporate image on FP as shown by the adjusted R^2 = 0.359, F (2, 47) = 14.675, $p < 0.05$. This suggest that CSR and corporate image jointly explained 35.9% of variance in FP while the outstanding 54.1% is accounted for by other omitted explanatory variables not taken into account in the estimation model.

The mediation slope along path-*b* ($\beta = 0.374$, $t = 2.531$, $p < 0.05$) revealed a positive significant effect of corporate image on FP thus fulfilling the 3rd condition of mediation analysis using causal steps proposed by Baron and Kenny (1986). Moreover, the 2nd results in Table 5.4 represents path-*ć* unstandardized coefficient ($\beta = 0.076$, $t = 0.427$, $p > 0.05$) which confirmed an insignificant effect of CSR on FP. As a result, the findings obtained satisfies the 4th condition of mediation process using causal steps approach by obtaining insignificant relationship between the independent variable (CSR) and the dependent variable (FP) after controlling for the mediating variable (corporate image). To confirm whether there was full/complete or partial mediation, the estimated regression weight of the direct effect (path-*ć*) was examined. Since the coefficient *ć* (0.076) of the direct effect was insignificant, full mediation was inferred.

Table 5.4: Estimation Results Along Path *b* and *ć*; Corporate Social Responsibility, Corporate Image and Performance

FP	β	SE	t	p	LLCI	ULCI	
Constant	1.899	0.395	4.809	0.000	1.105	2.694	
CSR	0.076	0.178	0.427	0.672	-0.281	0.433	**Path-*ć***
CI	0.374	0.148	2.531	0.015	0.077	0.670	**Path-*b***
R^2	0.384						
Adj. R^2	0.359						
MSE	0.158						
F(2, 47)	14.675						
Prob > F	0.000						
N	50						

Source: Research Findings (2021)

The confirmation of mediation effects in an estimation model is adjudged based on the "indirect effects", that is, the effects along path-*a* and path-*b*. The indirect effects are obtained using two approaches: differences in coefficients and product of coefficients. The indirect effects is obtained by computing the differences in regression coefficients between path-*c* and path-*ć* (*c* - *ć*) which should be algebraically equivalent to the product of coefficients of path-*a* and path-*b* (*a***b*) i.e. (*c* - *ć* = a**b*). The mediation effect from differences in coefficients is given by *c* - *ć* (0.456-0.076) = 0.380 while the indirect effects using product of coefficients is obtained by multiplying regression weights of path *a***b* = (1.016 * 0.374) = 0.380. The mediation process is confirmed by the significance of the indirect effects (*c* - *ć* = a**b*).

Similarly, the indirect effect (mediation) of CSR on FP can also be generated automatically using PROCESS macro via Bootstrap Confidence Interval method. The presence of mediation effect in bootstrap technique depends on the significance of the path coefficients and the p-value of the indirect effects. The indirect effect (*a***b*) regression weight was 0.380 based on 5000 bootstrap sample as shown in Table 5.5 which is consistent with the prior manually computed values. The lower level confidence interval (BootLLCI) is 0.006 and the upper level confidence interval

(BootULCI) is 0.689. Since zero does not lie between the two values, then the indirect effect is presumed to be statistically significant. This implies that there was a significant indirect positive relationship between CSR and FP mediated by corporate image (*a*b* = 0.380, Bootstrap $CI_{95\%}$ = 0.006 and 0.689).

Table 5.5: Estimation Results of Total, Direct and Indirect Effects

Total Effect of CSR on FP					
Effect	**SE**	**t**	**p**	**LLCI**	**ULCI**
0.456	0.100	4.541	0.000	0.254	0.657
Direct Effect of CSR on FP					
Effect	**SE**	**t**	**p**	**LLCI**	**ULCI**
0.076	0.178	0.427	0.672	-0.281	0.433
Indirect Effect of CSR on FP					
	Bootstrap	**Effect**	**BootSE**	**BootLLCI**	**BootULCI**
CI	a*b	0.380	0.173	0.006	0.689

Based on 5000 bootstrap samples

Source: Research Findings (2021)

The presence of mediation effects in the mediation model was further confirmed using Sobel Test. Sobel test was performed using special options available in the PROCESS macro. This test checks whether the inclusion of a mediator (corporate image) in the empirical model significantly reduces the effect of the independent variable (CSR) on the outcome variable (FP). This was meant to validate the findings obtained through Bootstrap Confidence interval technique. The indirect effects obtained through Sobel test was 0.380 which was similar to those obtained using Bootstrap confidence interval technique hence showing the consistency between findings obtained via different methods. The results confirmed that corporate image positively and significantly mediate CSR-FP relationship ($Z = 2.456$, $p < 0.05$) as indicated in Table 5.6. As a result, the researcher rejected the null hypothesis (H_{02}).

Table 5.6: Normal Test Theory/Sobel Test for Indirect Effects

Effect	SE	Z	p	LLCI	ULCI
0.380	0.155	2.456	0.014	0.077	0.683

Source: Research Findings (2021)

5.3.4 Testing Mediation Using Structural Equation Model

The conceptual model illustrated in Figure 5.2 shows path coefficients of direct (path-*ć*) and indirect effects (path-*ab*) in the mediation process using SEM. The total effects (path-c) is obtained by summing direct and indirect effects (c = ć + ab).

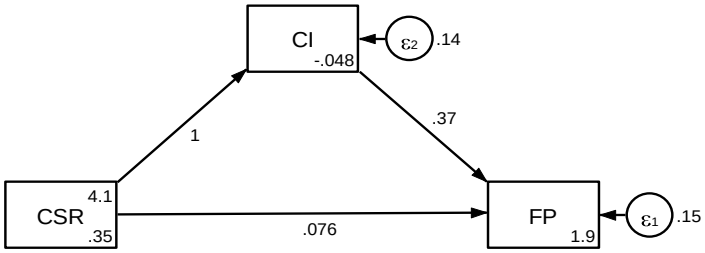


Figure 5.2: Simple Mediation Model Using SEM

The path coefficients obtained through SEM confirms the regression weights of the mediation analysis using causal steps proposed by Baron and Kenny (1986). Table 5.7 displays decomposition of mediation process into total, direct and indirect effects.

Table 5.7: Direct, Indirect and Total Effects Using Structural Equation Model

Direct Effects							
	β	**SE**	**z**	**p**	**LLCI**	**ULCI**	**Path**
Structural FP←							
CI	0.373	0.143	2.61	0.009	0.093	0.654	Path ***b***
CSR	0.076	0.172	0.44	0.658	-0.261	0.414	Path ***ć***
CI←							
CSR	1.017	0.091	11.17	0.000	0.839	1.196	Path ***a***
Indirect Effects							
	β	**SE**	**z**	**p**	**LLCI**	**ULCI**	**Path**
Structural FP←							
CI	0	(no path)					
CSR	0.380	0.149	2.54	0.011	0.087	0.672	Path (***ab***)
CI←							
CSR	0	(no path)					
Total Effects							
	β	**SE**	**z**	**p**	**LLCI**	**ULCI**	**Path**
Structural FP←							
CI	0.373	0.143	2.61	0.009	0.093	0.654	Path ***b***
CSR	0.456	0.098	4.64	0.000	0.263	0.648	Path ***c***
CI←							
CSR	1.017	0.091	11.17	0.000	0.839	1.196	Path ***a***

Source: Research Findings (2021)

The direct effects (path-*ć*) is the pathway from the exogenous to outcome variable while controlling for the mediator. The findings confirmed insignificant effect of CSR on FP ($\beta = 0.076$, $z = 0.44$, $p > 0.05$) while controlling for corporate image thus satisfying the 4th condition of mediation analysis using causal steps strategy proposed by Baron and Kenny (1986).

The indirect effects describes the pathway from the exogenous to outcome variable via the mediator and is represented by the product of coefficients of path-*ab* (1.017*0.373 = 0.380). The results revealed positive and significant indirect effects ($\beta = 0.380$, $z = 0.54$, $p < 0.05$) of CSR on FP via corporate image thus satisfying the conditions for the 2nd and 3rd step of mediation process using causal steps approach.

The total effect (path-c) is the sum of the direct and indirect effect (c = ć + ab) which is obtained by (0.076 + 0.380 = 0.456). The findings indicate that CSR positively and significantly predicted FP (β = 0.456, z = 4.64, p < 0.05) hence satisfying the conditions for the 1st step of mediation analysis under causal steps strategy.

5.4 Corporate Social Responsibility, Firm Size and Firm Performance

The third objective of the study was to establish the influence of firm size on the relationship between corporate social responsibility and performance of firms listed at the NSE. CSR composite score was constructed by based six indicators (environment, community, employees, and customer, investor and supplier dimensions). Firm size was proxied by total assets as well as sales turnover. Finally, a composite FP was computed by aggregating financial and non-financial metrics into a single composite score. The following two null sub-hypotheses were sequentially tested using the four approaches proposed by Aiken and West (1991).

H_{03a}: The moderating influence of asset base on the relationship between corporate social responsibility and performance of firms listed at NSE is not significant.

For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP = \beta_0 + \beta_1 CSR + \beta_2 AB + \beta_3 CSR * AB + \mathcal{E}_1}$$

Note: The variables are as delineated in estimation model. ..... $(\mathbf{3.5})$

Table 5.8: Corporate Social Responsibility, Asset Base and Performance

FP	β	SE	t	p	LLCI	ULCI
Constant	3.756	0.055	68.568	0.000	3.646	3.866
CSR	0.382	0.096	3.999	0.000	0.190	0.575
AB	0.002	0.025	0.077	0.939	-0.049	0.053
CSR*AB	0.104	0.033	3.180	0.003	0.038	0.170
R^2	0.427					
Adj. R^2	0.390					
MSE	0.150					
F(3, 46)	11.415					
Prob > F	0.000					
N	50					
Test of Highest Order Unconditional Interaction						
	ΔR^2	**F**	**df_1**	**df_2**	**p**	
CSR*AB	0.126	10.115	1	46	0.003	

Source: Research Finding (2021)

Based on the estimation results from PROCESS macro (model 1), the overall moderation model was significant and yielded $R^2 = 0.390$, $F(3, 46) = 11.415$, $p < 0.05$. Together, CSR, asset base and interaction term collectively explained approximately 39% of variance in FP while the remaining 61% was accounted for by other explanatory variables not taken into consideration in the estimation model.

Furthermore, the empirical findings revealed that CSR positively and significantly predicted FP ($\beta = 0.382$, $t = 3.999$, $p < 0.05$) while in contrast, the asset base had an insignificant influence on FP ($\beta = 0.002$, $t = 0.077$, $p > 0.05$). The regression weight of interaction between CSR and asset base (CSR*AB) was positively significant ($\beta = 0.104$, $t = 3.180$, $p < 0.05$) implying that the conditional effect of CSR on FP depends on different levels of asset base. Consequently, this suggests that the relationship between CSR and FP became more positive (strengthened) as the level of asset base increases thus confirming the synergistic moderation.

The test of highest order unconditional interaction shows the change statistics. The change in R^2 quantifies the variance accounted for by the interaction term above the variance explained by the basic model without the interaction term. The estimation model confirmed significant increase in variance of FP {$\Delta R^2 = 0.126$, $F(1, 46) = 10.115$, $p < 0.05$} which suggest that there was 12.6% increase in variation explained by addition of the interaction term.

To confirm further the conditional effects of CSR on FP, simple slope analysis was carried out using three values of asset base: 1SD below the mean (-2.194), at the mean (0.000), and 1SD above the mean (+2.194). These values quantify the steepness of the bend in lines based on varying levels of the asset base. Table 5.8 shows the results of simple slope analysis.

Table 5.9: Conditional Effect of CSR at Values of the Asset Base

AB	Effect	SE	t	p	LLCI	ULCI
-2.194	0.154	0.133	1.158	0.253	-0.113	0.421
0.000	0.382	0.096	3.999	0.000	0.190	0.575
2.194	0.611	0.105	5.828	0.000	0.400	0.822

Source: Research Finding (2021)

Table 5.9 suggests that CSR had a considerably positive relationship with FP at lower levels of asset base even though this effect was insignificant ($\beta = 0.154$, $t = 1.158$, $p > 0.05$). At the mean level of asset base, CSR was associated with a positive significant increase in FP ($\beta = 0.382$, $t = 3.999$, $p < 0.05$). At the higher levels of asset base, more CSR activities was associated with a positive significant increase in FP ($\beta = 0.611$, $t = 5.828$, $p < 0.05$).

Since interpreting interaction coefficients is not easy or straightforward, it is important to use visual displays to evaluate the interaction effects. As shown by Figure 5.2, the slope inclinations were different between the low, average and high levels of asset base.

This suggests that the relationship between CSR and FP differed significantly at varying levels of assets base. Furthermore, the interaction plot confirms synergistic interaction, i.e. increased levels of asset base strengthen the relationship between CSR and FP.

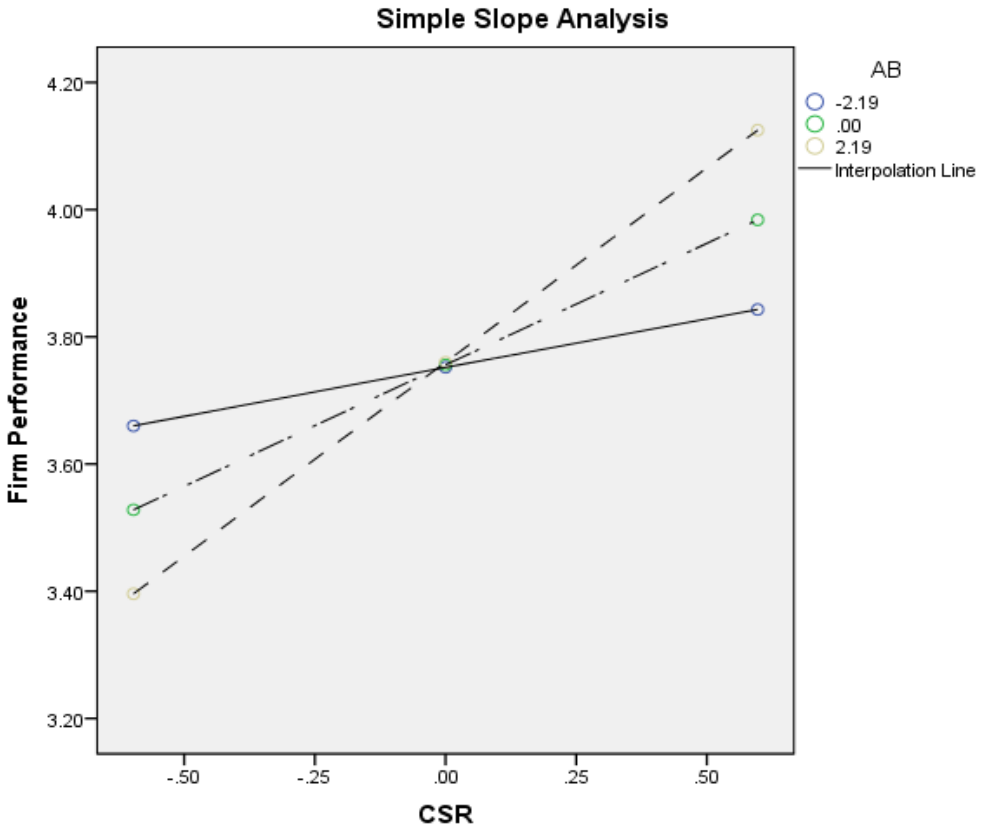


Figure 5.3: Interaction Plot Showing the Conditional Effect of CSR on Performance at values of the Asset Base

Moreover, rather than testing for significance at fixed values of asset base, Johnson-Neyman procedure works backwards and solves for values of asset base for which the conditional effect of CSR on FP ceases or becomes significant. Table 5.10 shows the values of asset base defining Johnson-Neyman significance regions. The findings showed that the relationship between CSR and FP was significant when the values of asset base ranged from -1.426 to 5.083. This provide sufficient evidence that as firms grow in size, the CSR activities have more positive effects on the performance. As a result, the moderating effect of asset base on the relationship between CSR and FP was significant leading to rejection of the null sub-hypothesis (H_{03a}).

Table 5.10: Conditional Effect of CSR at values of the Asset Base

AB	Effect	SE	t	p	LLCI	ULCI
-4.587	-0.096	0.197	-0.486	0.629	-0.491	0.300
-4.103	-0.045	0.183	-0.247	0.806	-0.413	0.323
-3.620	0.005	0.169	0.031	0.976	-0.336	0.346
-3.136	0.056	0.156	0.355	0.724	-0.259	0.370
-2.653	0.106	0.144	0.736	0.465	-0.184	0.395
-2.169	0.156	0.132	1.183	0.243	-0.110	0.422
-1.686	0.207	0.121	1.702	0.095	-0.038	0.451
-1.426	0.234	0.116	2.013	0.050	0.000	0.467
-1.202	0.257	0.112	2.298	0.026	0.032	0.482
-0.719	0.307	0.104	2.961	0.005	0.098	0.516
-0.235	0.358	0.098	3.660	0.001	0.161	0.554
0.248	0.408	0.094	4.344	0.000	0.219	0.597
0.732	0.458	0.093	4.942	0.000	0.272	0.645
1.215	0.509	0.094	5.398	0.000	0.319	0.698
1.699	0.559	0.098	5.688	0.000	0.361	0.757
2.182	0.609	0.105	5.826	0.000	0.399	0.820
2.666	0.660	0.113	5.849	0.000	0.433	0.887
3.149	0.710	0.123	5.796	0.000	0.464	0.957
3.633	0.760	0.133	5.701	0.000	0.492	1.029
4.116	0.811	0.145	5.584	0.000	0.519	1.103
4.600	0.861	0.158	5.461	0.000	0.544	1.179
5.083	0.912	0.171	5.338	0.000	0.568	1.255

Source: Research Finding (2021)

H_{03b}: The moderating influence of sales turnover on the relationship between corporate social responsibility and performance of firms listed at NSE is not significant.

For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP = \beta_0 + \beta_1 CSR + \beta_2 AB + \beta_3 CSR * ST + \mathcal{E}_1}$$

Note: The variables are as delineated in estimation model. . . . . $(\mathbf{3.6})$

Table 5.11: Corporate Social Responsibility, Sales Turnover and Firm Performance

FP	β	SE	t	p	LLCI	ULCI
Constant	3.754	0.055	68.162	0.000	3.643	3.865
CSR	0.393	0.095	4.112	0.000	0.200	0.585
ST	0.019	0.030	0.621	0.538	-0.042	0.079
CSR*ST	0.119	0.039	3.044	0.004	0.040	0.198
R^2	0.420					
Adj. R^2	0.383					
MSE	0.152					
F(3, 46)	11.125					
Prob > F	0.000					
N	50					
Test of Highest Order Unconditional Interaction						
	ΔR^2	**F**	**df_1**	**df_2**	**p**	
CSR*ST	0.117	9.265	1	46	0.004	

Source: Research Finding (2021)

Table 5.11 shows the estimation results of the interaction model which yielded considerably high adjusted coefficient of determination $R^2 = 0.383$, $F(3, 46) = 11.125$, $p < 0.05$. This suggests that the overall interaction model was statistically significant with CSR, sales turnover and interaction term collectively predicting approximately 38.3% of variance in FP whereas the remaining 61.7% is attributed to other predictor variables ignored in the empirical model.

Likewise, the estimation results showed that CSR positively and significantly predicted FP ($\beta = 0.393$, $t = 4.112$, $p < 0.05$). In contrast, sales turnover insignificantly influenced FP ($\beta = 0.019$, $t = 0.621$, $p > 0.05$). The beta coefficient of the interaction between CSR and asset base (CSR*ST) was positively significant ($\beta = 0.119$, $t = 3.044$, $p < 0.05$) inferring that the conditional effect of CSR on FP depends on different levels of sales turnover. This suggest that the estimated effect of CSR on FP became more positive (strengthened) as the level of sales turnover increases hence confirming synergistic moderation.

An alternative way of probing interactions is via test of highest order unconditional interaction or simply change statistics. The outcome of the change statistics arising from inclusion of an interaction term in the estimation model produced $\Delta R^2 = 0.117$, $F(1, 46) = 9.265$, $p < 0.05$. This revealed a significant increase in change of variance (ΔR^2) which shows 11.7% increase in variance accounted for as a result of adding interaction term in the basic estimation model.

Furthermore, simple slope analysis was used also to confirm the moderating effect of sales turnover on CSR-FP relationship. This was performed using three values of sales turnover: 1SD below the mean (-1.849), at the mean (0.000), and 1SD above the mean (1.849). These fixed values measure the steepness of the bend in lines based on varying levels of the sales turnover. Table 5.12 shows the estimation results of simple slope analysis.

Table 5.12: Conditional Effect of CSR at Values of the Sales Turnover

ST	Effect	SE	t	p	LLCI	ULCI
-1.849	0.173	0.132	1.312	0.196	-0.092	0.437
0.000	0.393	0.095	4.112	0.000	0.200	0.585
1.849	0.613	0.107	5.745	0.000	0.398	0.827

Source: Research Finding (2021)

The empirical findings revealed that CSR had a marginal positive relationship with FP at lower levels of sales turnover although this effect was non-significant ($\beta = 0.173$, $t = 1.312$, $p > 0.05$). At the mean level of sales turnover, CSR was associated with a positive significant increase in FP ($\beta = 0.393$, $t = 4.112$, $p < 0.05$). At the higher levels of sales turnover, more CSR activities was associated with a positive significant improvement in FP ($\beta = 0.613$, $t = 5.745$, $p < 0.05$).

Visual inspection is equally important in evaluating and confirming the moderation effect since interpreting interaction coefficients is quite challenging. The interaction plot

confirms the results from the simple slope analysis. As illustrated in Figure 5.3, the slope inclinations were different between the low, average and high levels of asset base. This suggest that the linkage between CSR and FP varied significantly at different levels of sales turnover. Moreover, the interaction plot confirmed synergistic interaction, that is, increased levels of sales turnover strengthens CSR-FP relationship.

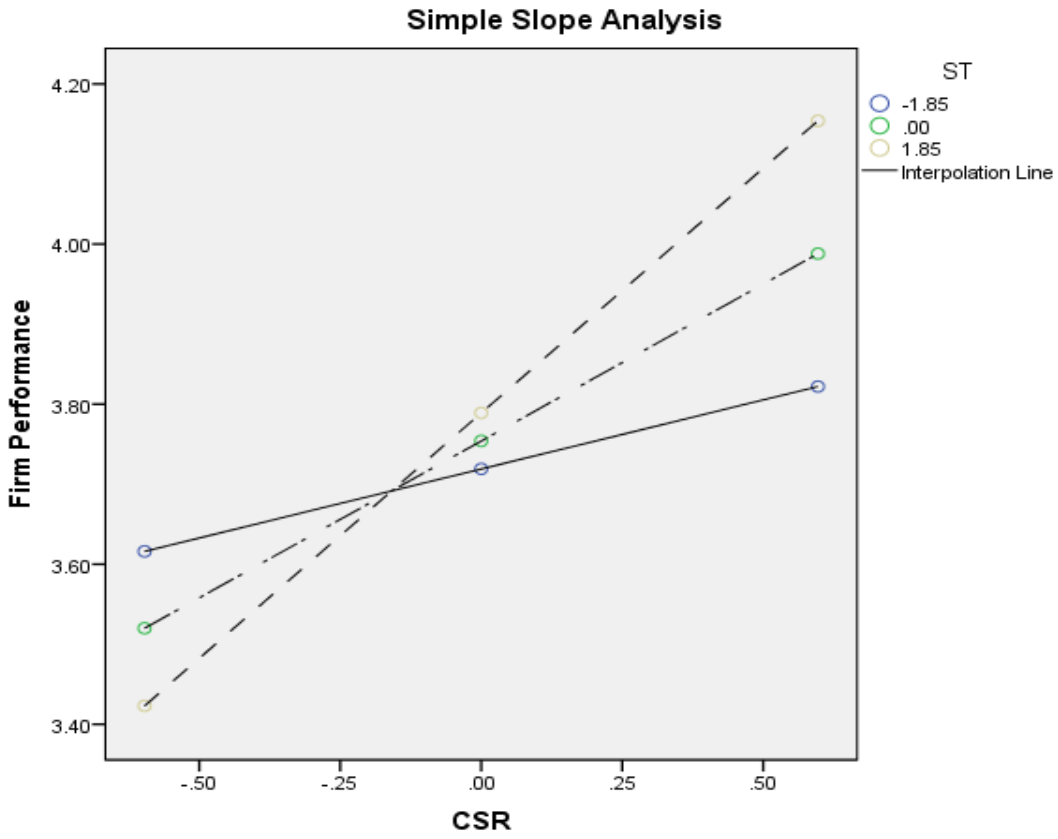


Figure 5.4: Interaction Plot Showing Conditional Effect of CSR on Performance at values of the Asset Base

Moreover, Johnson-Neyman procedure is another widely used approach for confirming interaction effect. Instead of conditioning on specific values of sales turnover, this technique identifies the points along the sales turnover where the relationship between CSR and FP transitions between being statistically significant to non-significant and vice versa. Table 5.13 shows the range of values of sales turnover defining Johnson-Neyman significance regions. The findings revealed that the relationship between CSR and FP was significant when the values of sales turnover ranged from -1.309 to 4.316.

This suggest that CSR lead to improved FP as the firms became bigger. Consequently, the moderating effect of sales turnover on CSR-FP relationship was statistically significant leading to rejection of the null sub-hypothesis (H_{03b}).

Table 5.13: Conditional Effect of CSR at values of the Sales Turnover

ST	Effect	SE	t	p	LLCI	ULCI
-4.444	-0.136	0.215	-0.632	0.531	-0.570	0.298
-4.006	-0.084	0.200	-0.420	0.677	-0.487	0.319
-3.568	-0.032	0.185	-0.172	0.864	-0.405	0.341
-3.130	0.020	0.171	0.118	0.906	-0.323	0.364
-2.692	0.072	0.157	0.462	0.647	-0.243	0.387
-2.254	0.124	0.143	0.869	0.390	-0.164	0.413
-1.816	0.176	0.131	1.351	0.183	-0.087	0.440
-1.378	0.229	0.119	1.916	0.062	-0.012	0.469
-1.309	0.237	0.118	2.013	0.050	0.000	0.474
-0.940	0.281	0.109	2.565	0.014	0.060	0.501
-0.502	0.333	0.102	3.278	0.002	0.128	0.537
-0.064	0.385	0.096	4.008	0.000	0.192	0.578
0.374	0.437	0.093	4.678	0.000	0.249	0.625
0.812	0.489	0.094	5.209	0.000	0.300	0.678
1.250	0.541	0.097	5.555	0.000	0.345	0.737
1.688	0.593	0.104	5.722	0.000	0.385	0.802
2.126	0.645	0.112	5.750	0.000	0.420	0.871
2.564	0.698	0.123	5.689	0.000	0.451	0.944
3.002	0.750	0.134	5.579	0.000	0.479	1.020
3.440	0.802	0.147	5.448	0.000	0.506	1.098
3.878	0.854	0.161	5.310	0.000	0.530	1.178
4.316	0.906	0.175	5.176	0.000	0.554	1.258

Source: Research Finding (2021)

5.5 Corporate Social Responsibility, Corporate Image, Firm Size and Performance

The fourth objective was to determine the joint effect of corporate social responsibility, image and size on performance of firms listed at the NSE. CSR was proxied by a composite index developed from six dimensions (environment, community, employee, customers, investors and suppliers). Corporate image was operationalized by four indicators, namely: emotional appeal; quality of products/services; vision and leadership

and innovation. Firm size was represented by asset base and sales turnover. FP composite score was computed by combining financial and non-financial metrics. The null hypothesis (H_{04} was tested as specified below.

H_{04}: The joint effect of corporate social responsibility, corporate image and firm size on performance of firms listed at NSE is not significant.

For the purpose of estimation, a general linear model is specified as follows;

$$\mathbf{FP = \beta_0 + \beta_1 CSR + \beta_2 CI + \beta_3 AB + \beta_4 ST + \varepsilon_1}$$

Note: The variables are as delineated in estimation model. $(\mathbf{3.7})$

Table 5.14: Corporate Social Responsibility, Corporate Image, Size and Performance

FP	β	SE	t	p	LLCI	ULCI
Constant	1.631	0.828	1.97	0.055	-0.038	3.300
CSR	0.072	0.181	0.40	0.691	-0.292	0.437
CI	0.376	0.150	2.50	0.016	0.074	0.679
AB	-0.016	0.037	-0.44	0.665	-0.092	0.059
ST	0.029	0.044	0.66	0.509	-0.060	0.119
R^2	0.391					
Adj. R^2	0.337					
MSE	0.404					
F (4, 45)	7.22					
Prob > F	0.000					
N	50					

Source: Research Finding (2021)

The empirical findings indicated in Table 5.14 revealed a significant joint effect of CSR, corporate image and size on FP as confirmed by $R^2 = 0.337$, $F(4, 45) = 7.22$, $p < 0.05$. In overall, the estimation model produced adjusted coefficient of determination (R^2) which significantly predicted sizable proportion of variation in FP. This suggest that approximately 33.7% of variation in FP is attributable to changes in CSR, corporate image and size whereas the outstanding 66.3% of unexplained variation is associated with omitted explanatory variables in the empirical model.

Additionally, examination of the individual explanatory variables revealed that CSR insignificantly predicted FP ($\beta = 0.072$, $t = 0.40$, $p > 0.05$. On the contrary, the estimated effect of corporate image on FP was reasonably positive and statistically significant ($\beta = 0.376$, $t = 2.50$, $p < 0.05$). On the other hand, asset base had an insignificant effect on FP ($\beta = -0.016$, $t = -0.44$, $p > 0.05$). Furthermore, sales turnover revealed an insignificant influence on FP ($\beta = 0.029$, $t = 0.66$, $p > 0.05$). Since the overall estimation model was statistically significant {$R^2 = 0.337$, $F(4, 45) = 7.22$, $p < 0.05$}, the joint effect of CSR, corporate image and firm size on FP was confirmed leading to rejection of the null hypothesis (H_{04}).

Table 5.15: Summary of Results of Hypothesis Testing

Objective 1: To investigate the influence of corporate social responsibility on performance of firms listed at the NSE.		
Null Hypothesis	**Findings**	**Interpretation**
H_{01}: The relationship between corporate social responsibility and performance of firms listed at the NSE is not significant	CSR-FP relationship was positive and significant	Hypothesis rejected
Objective 2: To examine the effect of corporate image on the relationship between corporate social responsibility and performance of firms listed at the NSE		
Null Hypothesis	**Findings**	**Interpretation**
H_{02}: The mediating effect of corporate image on the relationship between corporate social responsibility and performance of firms listed at the NSE is not significant.	There was the mediating effect of corporate image on CSR-FP relationships	Hypothesis rejected
Objective 3: To establish the influence of firm size on the relationship between corporate social responsibility and performance of firms listed at the NSE		
Null Hypothesis	**Findings**	**Interpretation**
H_{03a}: The moderating influence of asset base on the relationship between corporate social responsibility and performance of firms listed at NSE is not significant.	Asset base moderated CSR-FP relationship. Synergistic interaction was confirmed.	Hypothesis rejected
H_{03b}: The moderating influence of sales turnover on the relationship between corporate social responsibility and performance of firms listed at NSE is not significant.	Sales turnover moderated CSR-FP relationship. Synergistic interaction was established.	Hypothesis rejected
Objective 4: To determine the joint effect of corporate social responsibility, corporate image and firm size on performance of firms listed at the NSE		
Null Hypothesis	**Findings**	**Interpretation**
H_{04}: The joint effect of corporate social responsibility, corporate image and firm size on performance of firms listed at NSE is not significant.	The overall regression model was statically significant revealing a joint influence of CSR, corporate image and firm size on performance	Hypothesis rejected

Source: Research Finding (2021)

5.6 Discussion of Hypothesis Testing and Empirical Findings

The overall objective was to determine the relationship between corporate social responsibility, corporate image, firm size and performance of firms listed at the NSE. This section presents comprehensive discussions of the results of various hypotheses tested as summarized in Table 5.14. The discussion delved on how well the findings converge or diverge with prior empirical investigations as well as assessing whether the results support theoretical propositions underpinning the study.

5.6.1 Corporate Social Responsibility and Firm Performance

The relationship between CSR and FP was tested using null sub-hypothesis. The findings revealed that there was a significant positive relationship between CSR and FP leading to rejection of null hypothesis (H_{01}). However, the findings of the current study converged and equally diverged with the prior empirical investigations. This implies CSR-FP relationship still remains inconclusive owing to mixed empirical findings.

The current findings are comparable with the prior results reported in empirical literature relating to CSR-FP relationship. Similar findings are reported by Laskar and Maji (2017) who suggested that there was a significant positive impact of CSR on FP among the Indian listed firms. In the local context, the findings by Kamwara *et al.* (2016) which indicated that CSR has a positive significant influence on performance of firms listed at the NSE corroborate the outcome of this study. The findings of the current study are also in line with those of Mi *et al.* (2018) who found significant positive correlation between weighted CSR ratings scores based on DJS evaluation criteria and FP of Chinese firms.

Furthermore, the results are in tandem with those of Chebet and Muturi (2018) who documented a significant positive relationship between four dimensions of CSR (economic, ethical, philanthropic and legal) and FP using a case study of Chemelil and Nzoia sugar factories in Kenya. Likewise, the outcome of the current study confirms that of Mishra and Suar (2010) who established that an increase in aggregate CSR boosts performance among the Indian firms. These findings support the key tenets of legitimacy, stakeholder, RBV and signalling theories.

In contrast, the empirical finding also greatly diverge from prior empirical works focusing on CSR-FP relationship. The outcomes of this empirical study is inconsistent with Priyadarshini and Gomathi (2018) who while using data set for privately owned banks in India found insignificant association between CSR expenditure and FP. Contrary with the findings of this empirical investigation, Haryono and Iskandar (2015) established an insignificant linkage between CSR and value of listed firms within the mining sector in Indonesia. Dissimilar results were obtained by Widiastuty and Soewarno (2019) who while utilizing longitudinal data of 53 listed Indonesian firms concluded that CSR was merely a corporate action geared towards satisfying charity work without anticipating any financial returns. Moreover, the results contradict the estimations made by Kabir and Qayum (2016) who reported insignificant impact of CSR expenditure on FP among Islamic banks in Bangladesh.

5.6.2 Corporate Social Responsibility, Corporate Image and Firm Performance

The mediating influence of corporate image on the relationship between CSR and FP was investigated by testing null hypothesis. The empirical findings confirmed the mediating effect of the corporate image on the relationship between CSR and FP leading to rejection of null hypothesis (H_{02}). The findings of this study converge with the vast of the prior empirical studies that support the causal linkage between CSR, corporate image and FP. The findings are similar with those of Alrubaiee *et al.* (2016) who reported the partial intervening effect of corporate image and customer value on the nexus between CSR and marketing performance of 21 Jordanian Hospitals. Analogous findings are reported by Agyemang and Ansong (2016) who suggested that CSR practices enhances corporate image capital which in turn translates into better FP. The estimation results also support the empirical works of Hafez (2017) who found that successful CSR practices enhances corporate image and brand awareness which eventually contribute to strong FP. The

outcome of the current research is in line with that of Famiyeh *et al.* (2016) who established that corporate image completely mediates relationship between CSR and FP of selected firms in Accra Ghana.

Moreover, the outcome of this study reflect those of Almagir and Uddin (2017) who established that CSR positively influences corporate image which in turn leads to improved FP. Similarly, the results of the current study significantly converge with those of Zainab *et al.* (2018) who established that CSR actions strengthens corporate image which consequently boosts FP. Additionally, the findings mirror those of Antonio *et al.* (2019) who while using a dataset of 107 agricultural-food companies in Spain established that image capital mediates the linkage between CSR and FP. The results equally validate those of Pradhan (2016) who found a positive link between CSR expenditure, corporate image and FP. The findings are also consistent with Yang *et al.* (2017) who reported the mediating effect of corporate image on the link between internal and external variants of CSR and performance of 256 SMEs in China. Analogous findings are documented by Sindhu and Arif (2017) who suggested that CSR significantly influences FP and this relationship is partially mediated by corporate image.

5.6.3 Corporate Social Responsibility, Firm Size and Performance

The moderating effect of firm size on the relationship between CSR and FP was examined by testing two null sub-hypotheses based on the indicators used to proxy size (asset base and sales turnover). The empirical investigation yielded consistent results using asset base and sales turnover separately as indicators of firm size. The findings confirmed that size (measured by asset base) moderated CSR-FP relationship leading into rejection of null-sub hypothesis (H_{03a}). Likewise, the findings confirmed the moderating effect of firm size (measured by sales turnover) on the association between CSR and FP leading into rejection of null-sub hypothesis (H_{03b}).

The findings of this study are comparable to those obtained by Youn *et al.* (2015) who established that the relationship between CSR and FP became stronger as firms increase in size. Similarly, the outcome of this study corroborate that of Ibrahim and Hamid (2019) who found significant moderating effect of firm size and leverage on CSR-financial performance linkage as increased levels of the moderators strengthened the hypothesized relationship. Similar findings are reported by Bhuyan *et al.* (2015) who suggested that size, leverage, board size and industry moderate the relationship between CSR and FP as increased levels of the moderators reinforced CSR-FP relationship. Similarly, Chakroun *et al.* (2019) findings confirm the results of the current study since they concluded that as firms become bigger, the relationship between CSR and FP became significantly stronger with evidence from French firms listed at Euronext Paris. Additionally, the current estimation results converge with that of Cui, Liang and Lu (2013) who suggested that size moderated CSR-performance relationship as the association became stronger for larger firms.

A plethora of previous empirical studies have yielded divergent findings in regard to the moderating role of firm size on CSR-FP relationship. Inconsistent with the above findings, Devie, Liman, Tarigan and Jie (2018) established that varying levels of size, leverage and age of the firm had no significant effect on CSR-FP relationship. The results of the current research do not reflect the conclusions drawn by Tyagi and Sharma (2013) who reported that increased levels of firm size insignificantly enhanced CSR-FP linkage. Dissimilar findings are reported by Masdupi and Yulius (2017) who suggested that the relationship between CSR and FP become marginally stronger though insignificantly as the firm size and leverage increased. The outcome of this study contradict those of Hirigoyen and Poulain-Rehm (2015) who concluded that increased levels of firm size and financial debt did not significantly enhanced CSR-FP relationship. Moreover, the

findings of this study contrast with Gautam, Singh and Bhowmick (2016) who concluded that as firms become bigger coupled with the nature of the industry in which they operate in, the CSR-FP relationship become insignificantly weaker.

5.6.4 Corporate Social Responsibility, Corporate Image, Firm Size and Performance

The joint effect of CSR, corporate image and firm size on performance was empirically tested using null hypothesis. The results established that there was a significant joint effect of CSR, corporate image and firm size on performance leading to rejection of the null hypothesis (H_{04}). Majority of the reviewed empirical investigations have documented similar findings in regard to the joint effect of CSR, corporate image and firm size on FP. The findings of the current study are comparable with Arshad *et al.* (2016) who found a significant joint effect of CSR expenditure, corporate image, firm size and age on performance of listed firms at Karachi stock exchange. Similar findings are reported by Lu *et al.* (2015) who established that FP was jointly significantly predicted by CSR, image and size. In the same way, the findings support Dyduch and Krasodomska (2017) who documented a significant joint relationship between CSR, image, size, financial leverage and profitability.

Analogous findings are reported by Ali *et al.* (2018) who indicated that CSR, corporate image, size and customer satisfaction were collectively and significantly related to FP. The findings of this study are also in agreement with Vazquez *et al.* (2019) who found significant joint effect of CSR, corporate image and firm size on FP. Moreover, similar findings were corroborated by Choongo (2017) who concluded that there was a significant joint effect of CSR, corporate image and size on FP. However, the results of this study do reflect conclusions drawn by Cherian *et al.* (2019) who suggested that CSR,

corporate image and size were insignificantly jointly associated with FP of manufacturing firms in India.

5.7 Chapter Summary

The findings suggest that CSR was significantly and positively associated with FP leading to eventual rejection of null hypothesis one (H_{01}). Corporate image was found to fully moderate the relationship between CSR and FP using four approaches of testing mediation, namely: causal steps strategy, bootstrapping, Sobel test/normal test theory as well as SEM. This led into rejection of null hypothesis two (H_{02}). Firm size was confirmed to moderate CSR-FP relationship using four approaches, namely: evaluating the significance of the interaction term and ΔR^2; simple slope analysis, interaction plots and Johnson-Neyman regions of significance. This led into rejection of null hypothesis three (H_{03}). Finally, the findings established the joint effect of CSR, image and size on FP based on the significance of the overall estimation model therefore leading into rejection of null hypothesis four (H_{04}).

CHAPTER SIX

SUMMARY OF FINDINGS AND RECOMMENDATIONS

6.1 Introduction

Chapter six provides a summary of the key findings of the study based on the hypotheses tested. Based on the empirical findings, several conclusions are made on the account of specific outcomes of every hypothesis that was tested. The study's contributions towards theory development, management practice and policy formulation is also captured in this section. Furthermore, this chapter presents numerous limitations identified during the course of the study as well as making important suggestions for areas for further research.

6.2 Summary of the Key Findings

On the basis of the four specific objectives guiding the study, consistent findings are reported in regard to various hypotheses that were empirically tested. The first objective investigated the relationship between CSR and performance of firms listed at the NSE. The second objective examined the effect of corporate image on the relationship between CSR and FP of firms listed at the NSE. The third objective assessed the influence of firm size on the relationship between CSR and FP of firms listed at the NSE. Finally, the fourth objective determined the joint effect of CSR, corporate image and firm size on performance of firms listed at the NSE.

The null hypothesis (H_{01}) investigated the relationship between CSR and performance of firms listed at the NSE. The results indicated a significant positive linkage between CSR and FP resulting into rejection of null hypothesis (H_{01}). The null hypothesis (H_{02}) examined the mediating effect of corporate image on the relationship between CSR and performance of firms listed at the NSE. The empirical findings suggest that corporate

image significantly mediate the association between CSR and FP hence leading into rejection of the null hypothesis.

The null hypothesis (H_{03a}) probed the moderating effect of asset base (indicator of firm size) on the relationship between CSR and performance of firms listed at the NSE. The results revealed significant moderating effect of asset base on the nexus between CSR and FP leading to rejection the null hypothesis. Similarly, the null hypothesis (H_{03b}) explored the moderating influence of sales turnover (measure of firm size) on the relationship between CSR and performance of firms listed at the NSE. The findings confirmed that sales turnover had significant moderating influence on the link between CSR and FP leading into rejection of the null hypothesis. The null hypothesis (H_{04}) assessed the joint effect of CSR, corporate image and firm size on performance of firms listed at the NSE. The findings indicated that the overall regression model was statistically significant thus confirming existence of joint effect leading into rejection of the null hypothesis.

6.3 Conclusions of the Study

The current study draws numerous conclusions based on the empirical findings. Ostensibly, there is convergence in findings with the prior empirical literature in regard to the relationship between CSR, corporate image, firm size and performance. The findings of this study support the theoretical propositions of legitimacy, stakeholder, resource based view and signaling theories. The study established a positive significant linkage between CSR and FP. A plausible explanation is that investment in CSR activities translates into both monetary and non-monetary gains which has a positive effect on FP. Investing in CSR schemes reinforces the capacity of the organization to attract talented workforce, enhances higher sales and make it easier for firms to market

their products. This consequently has a positive implication on FP. Overall, it can be concluded that CSR has a positive influence on performance.

The current study established that corporate image significantly mediates the relationship between CSR and FP. Corporate investments in CSR activities often triggers a positive outlook among diverse stakeholders such as the community, customers, employees, suppliers and investors which contributes to positive corporate image. A favourable corporate image in turn is an important intangible corporate resource which heightens the stakeholder trust and confidence. This gives a firm a competitive edge thus resulting into superior performance. The conclusion is that corporate image is an essential variable that indirectly connects CSR to FP.

Moreover, firm size had significant moderating effect on CSR-FP relationship. The findings of this study support the argument that when firms become larger, the vast resources at their disposal can potentially be invested in worthy causes such as CSR which in turn contributes into superior performance. Consequently, it can be concluded that size matters in either in strengthening, weakening, reversing or changing the relationship between CSR and FP. Finally, the study concluded that CSR, corporate image and firm size have a significant collective influence on FP.

6.4 Revised Conceptual Framework

The conceptual linkage between CSR, corporate image, size and FP was confirmed by the empirical results. First, the findings suggested that CSR was positively associated with FP. Secondly, the effect of CSR on FP was not direct, but it was transmitted through another third variable (corporate image). The estimation results confirmed that corporate image fully mediates CSR-FP relationship. Thirdly, the strength of CSR-FP relationship varied on the basis of the firm size. The findings suggested that CSR-FP

relationship strengthened as the firm size increased thus confirming synergistic moderation. Finally, the estimation results revealed a significant joint effect of CSR, corporate image and size on FP.

6.5 Contribution of the Study

The outcome of this empirical investigation extends literature in three ways. First, it makes significant contribution to theory development and knowledge, and more specifically, stakeholder, legitimacy, RBV as well as signaling theories. Secondly, it contributes positively to management practice. Finally, it makes valuable contribution to policy formulation which guides the economic development.

6.5.1 Theory Development and Knowledge

This study makes significant contribution to enhancement of the stakeholder theory popularized by Freeman (1984). The findings of this study complement stakeholder theory in developing market context by reinforcing the argument that size of the firm matters. Certainly, large firms unlike small ones have a greater number of stakeholders such as employees, community, customers, environment, suppliers and investors hence intensified stakeholder demands. Since the actions of integrated set of stakeholder affect and are also affected by the firms' operations, large firms have superior CSR engagement which leads to transparent long term mutual relationships with these important constituent groups. This eventually generates favourable corporate image capital which materially contributes to superior FP.

Similarly, the findings of this study make valuable contributions to the legitimacy theory. Fundamentally, legitimacy theory suggests that an implicit social contract exist between the organizations and the society. Therefore, firms continually seek to ensure that their actions are perceived by external stakeholders as legitimate. The findings of

this study improves legitimacy theory in developing markets by widening the scope of the influential stakeholders; the society which is construed to be external and suggest that implicit contract goes beyond the social to include also other internal stakeholders such as the employees and investors. As a result, CSR is viewed as a positive constructed stakeholder impression or corporate image that the company is conveying to both internal and external parties in order to improve its overall performance. Certainly, corporations use CSR as a mechanism of publicizing their image and legitimizing their corporate actions.

The empirical findings have significant implications on the signaling theory. The study enhances signaling theory by incorporating the element of firm size in the theoretical arguments. The results suggest that the intensity of the signal is contingent upon the size of the firm in terms of asset base and sales turnover. Therefore the influence of CSR on FP largely depends on the firm size since larger firms through pronounced CSR initiatives powerfully signal to multiple stakeholders some positive impressions of corporate behaviour thus augmenting the corporate image.

The findings of this study play an integral role in expanding the frontiers of knowledge in regard to CSR-FP relationship. To begin with, the study utilized a wide spectrum of CSR dimensions (environment, community, employees, customers, investors and suppliers) to investigate its potential linkage with the FP. The integration of both financial and non-financial aspects provides a holistic approach to measuring FP. Unlike vast of the prior studies that have been bivariate in nature; that is examining the direct association between CSR and FP; this study provides crucial evidence that the link is not always direct but it is intervened and moderated by external factors. The findings reveal that corporate image is an important mediator while firm size matters in

moderating CSR-FP relationship. This study has contributed to methodological rigor by utilizing other novel complementary approaches such as bootstrapping and Sobel test for testing mediation effect as well as simple slope analysis and Johnson-Neyman technique for testing the moderation effect.

6.5.2 Policy Implication

From the study's findings, the major concern that emerges is lack of influence and perceived importance of key regulatory stakeholders on the company's CSR initiatives. Given the importance of CSR as key corporate strategy in the modern corporate world, there have been protracted calls for governments to enact laws and regulations that would radically change CSR from voluntary to mandatory undertaking. Nevertheless, stringent CSR regulatory requirements are capable of dissuading firms from adopting effective CSR activities that goes beyond the statutory requirements. Instead, a more government-business collaborative approach should be undertaken so as to provide conducive environment where CSR practices can responsibly thrive with minimal state interventions in addressing societal concerns. Such approaches would certainly institute softer intervention designed to facilitate and foster corporate CSR, rather than having states overtly demand CSR actions in corporate world.

The findings of this study can help in formulation of social performance indices among the listed firms. The indices can be developed on the basis of how a specific firm performs in regard to a particular dimension of CSR and offer annual rankings of all the firms. This compares well with other global indices such as KLD and DJS. This has a potential of promoting socially responsible business actions that will minimize stakeholder activism hence minimizing the state intervention. Likewise, image indices at the local context can be developed and this will enable the country to be at par with

other developed markets which use image rankings such as reputation quotient. In addition, the findings of this study play a vital role in formulation of sound institutional framework that makes CSR programs to be mandatory. The government can also come up with some policies that compel firms to devote certain percentage of their earnings on CSR programs as this is a common practice in developed economies.

6.5.3 Management Practice

The findings of this study make valuable contributions to the management practice. The results offer guidance to the management concerning the potential benefits of social performance. The study provides evidence that corporate success is primarily hinged on a contented and thriving community, employees, customers, environment, suppliers and investors who play an important role in firm survival. The integration of specific CSR activities into corporate decision making has a significant impact on overall FP. The findings help the managers to understand that CSR programs contribute to improved corporate image. As a result, building a favourable image is essential in enhancing the FP.

More importantly, the outcome of this study helps the managers to realize that CSR is an important corporate strategy that elicits a positive ripple effect on multiple stakeholders. This consequently leads into emergence of an intangible corporate resource in form of positive corporate image. A favourable corporate image eventually leads into intensified sales, lower operational costs, improved customer loyalty, increased productivity, better corporate brand, heightened quality, greater ability to recruit talented staff, retention of talented and productive workforce, greater access to capital, reduced regulatory oversight, inclusiveness and diversity of workforce, reduction of liability and enhanced product features pertaining to safety. Consequently,

positive image capital leads into superior performance. Moreover, the findings help management to understand that CSR-FP relationship largely depends on resource availability and therefore size matters.

6.6 Limitations of the Study

Despite the study having several theoretical, practical and methodological implications, the potency of research findings should be taken with caution owing to several limitations. First, the study tested hypotheses in the context of a single country which permitted the analysis to hold any effects exerted by the environment constant, but weakened the generalizability of the research outcomes. Due to cultural influences on firms and CSR implementation, an extension of this study could be a cross-country study analyzing institutional, political, economic and cultural influences on the relationship between CSR, image, size and performance of firms. The adoption of cross-country data for multivariate investigation is important in pinpointing the weaknesses in data series that might not be possible to identify through the casual observation of trends and two-way tables, thus creating a demand for better quality of data. In addition, cross-country studies often provide a basis for instituting policy priorities on global and regional basis.

A second limitation of this study is that data was obtained at a single point in time. Cross-sectional dataset often fails to test the directionality of relationships between study variables and therefore do not consider what happens before and after the snapshot is taken. In contrast, longitudinal studies provide detailed information concerning CSR-FP relationship as it allows FP to be measured over time as levels of CSR change. Since longitudinal studies take a longer period of time, it can therefore be used to establish the sequence of events. Longitudinal studies may take the form of

panel, cohort or retrospective studies. Cross-sectional investigations simply analyze correlations between study variables and do not imply causation.

Lack of a single universally accepted metrics for operationalizing CSR, corporate image, size and FP has led to variation in selection and measurement of these variables. Divergent measures have made it difficult to compare and contrast vast of the empirical findings. Whereas this study opted to measure CSR based on questionnaire survey approach using six dimensions (community, environmental, employee, customer, supplier and investor), a number of analogous studies have employed different metrics such as CSR ratings (KLD, Vigeo index & DJS) and content analysis. These approaches have additional indicators for surrogating CSR such as diversity and human rights. This explains mixed findings in regard to CSR-FP relationship. Questionnaire based surveys employed in this study is not only costly, but also suffers from response bias.

In regards to FP, the current study utilized only market based financial indicators (PBV ratio) and non-financial indicators despite existence of other measures of FP such as accounting based measures which demonstrates response of organizations corporate earnings to diverse managerial policies. Concerning the moderating and intervening variables, this study on used a limited number of indicators to proxy size (asset base and turnover) despite existence of other metrics such as number of employees and shareholders which can add more rigors to the study. The absence of corporate image/reputational indices in most of the developing countries is another challenge facing appropriate operationalization of this variable in the local context. Image/reputational indices are internationally recognized valid measures that have been widely used in majority of the prior empirical examinations.

The sample used in this study was limited firms listed at the NSE. These firms are relatively large in size and often report superior performance in comparison to private firms. As a result, these companies possess substantial slack resources that are capable of sustaining CSR activities and it might not be possible to accurately determine whether investment in CSR activities really leads to improved performance. Moreover, private companies are subject to less stakeholder/state scrutiny compared to listed firms and therefore the findings cannot be extrapolated to private firm hence limiting the generalizability of the study upshots. Additionally, the dataset used in this study was drawn from a multi-industry setting, and more specifically eleven industries. Issues faced by each specific industry being dissimilar and unique, an aggregate analysis across multiple clusters of industries might have missed out on specific industry concerns. More importantly, it might not be possible to authoritatively ascertain the strength of social performance amongst firms since firms' exhibit varied strengths on the account of specific CSR dimension based on the industry in which the firm is domiciled.

6.7 Areas for Further Research

Vast of prior empirical studies have tested CSR-FP relationship where CSR has been utilized as the predictor variable while FP employed as the response variable. However, there is evidence that the hypothesized relationship is bi-directional, and therefore future studies should consider investigating whether FP determines the level of CSR engagement. This is supported by the slack resource hypothesis which suggests that the ability of an organization to participate in CSR activities largely depends on FP. Therefore, future empirical works should test FP-CSR relationship on the basis of slack resources theory in order to deal with the issue of causality.

Future studies should also consider using different indicators and approaches to measure the study variables (CSR, corporate image, firm size and FP). This study measured CSR via questionnaire based surveys. Future studies can adopt other approaches such as indices compiled by specialized rating agencies (e.g. KLD, DJS among others); content analysis of financial reports; and through the use of single-dimensional constructs that focus on one dimension of CSR. CSR expenditure can also be used to operationalize social performance. Future studies in this context should carried out using corporate image indices such as reputation quotient, Reptrak-TM quotient inter alia to proxy corporate image as opposed to questionnaire based surveys. Further studies should consider using alternative measures of firm size such as number of employees and shareholders. Finally, this study measured performance using market-based measures (PBV ratio) and non-financial measures derived from BSC framework. Future studies should consider using other metrics of operationalizing FP such as accounting based measures (e.g. ROE, ROA, ROI, NPM among others).

This empirical investigation employed data from a single developing market, Kenya, to examine the mediating and moderating role of corporate image and firm size on the relationship between CSR and FP. Therefore, the findings might not be generalizable or applicable to other developing markets due to dissimilarities in economic, political and cultural dynamics amongst states. Future studies can address these limitations by using more comprehensive data from cross-country samples so as to mitigate these inherent shortcomings.

Moreover, the study comprises only of a number of listed firms in Kenya and findings could be different if private companies were included in the sample. Future studies should focus on private firms which are less subject to stakeholder demands and

government scrutiny. The current study investigated a cross-section of industries. However, there may be significant industry differences, particularly on how CSR actions and activities are evaluated. Future research efforts should consider a single industry analysis so as to determine whether contextual variations indeed affect the level of social performance in regard to specific CSR dimensions.

Although the present research utilized corporate image and size as the only key moderating variables, future empirical works should consider using a variety of other control variables to mediate and moderate CSR-FP connection. For instance, organizational identity or visibility can be used as intervening variables while firm characteristic can be adopted as a moderating variable. Furthermore, the inclusion of greater number of mediating and moderating variables (multi moderated–mediation models) improves the methodological rigor.

Majority of the past empirical investigations including the current study have utilized cross-sectional datasets to probe CSR-FP association in varied contexts. Future studies can explore the possibility of employing longitudinal datasets in testing the relationship between these two variables. Longitudinal studies provide an opportunity to examine the relationship between CSR, corporate image, size and performance over a considerable period of time by capturing the temporal changes rather than simply assessing the correlation between them. More specifically, future studies should consider using panel data which integrates both cross-sectional and time-series of a phenomenon under investigation. In this estimation technique, data is collected from individual units observed over a considerable period of time. Moreover, panel data also allows use of specific individual components in the model thus making it possible to manage heterogeneity across individual subjects.

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APPENDICES

Appendix 1: Questionnaire

This questionnaire is designed to collect data from firms listed at the NSE in Kenya to examine the relationship between corporate social responsibility, corporate image, firm size and performance. The data will exclusively be used for academic purposes. The information provided was treated with utmost confidentiality and will not be shared with anybody else or used for any other purpose other than that for which it was collected. Your support and cooperation in filling the questionnaire was highly appreciated.

SECTION A: FIRM'S INFORMATION

1	Name of the firm	

SECTION B: CORPORATE SOCIAL RESPONSIBILITY (CSR)

Indicate the extent to which you agree or disagree with the following statements in regard to corporate social responsibility by placing a tick (√) in the box which best reflects your opinion.

1 Strongly Disagree	**2 Disagree**	**3 Neutral**	**4 Agree**	**5 Strongly Agree**				
		1	**2**	**3**	**4**	**5**
	(i) Environment					
1	Our firm has elaborate pollution prevention programme					
2	Our company has responsible waste disposal management system					
3	Our firm has a process design for reducing energy consumption in its operations					
4	Our organization is involved in environmental beautification					
5	Our company uses clean energy in its operations					
6	Our firm uses renewable source of energy					
7	Our organization has elaborate waste recycling policy					
8	Our company supports anti-litter campaigns					
9	Our organization has elaborate environmental rehabilitation program					
10	Our firm participates in tree planting exercise					
11	Our company uses environmentally friendly packaging materials					
	(ii) Community					
12	Our firm provides financial support to local community projects					
13	Our company employs local community in its areas of operation					
14	Our organization supports community charity programmes					
15	Our firm sponsors various sporting activities					
16	Our company provides internship programs to graduates					

17	Our organization funds scholarship programmes					
18	Our employees volunteer in community services such as cleaning					
19	The company provides free medical camps to the community					
20	Our organization contributes to disaster relief fund					
	(iii) Employees					
21	Our firm provides safe work environment to its employees					
22	Our company promotes gender parity in its recruitment practices					
23	Our organization ensures fair remuneration of its employees					
24	Our organization has fair promotion policies					
25	Our firm has appropriate medical scheme for its employees					
26	Our company promotes ethnic balance in its recruitment practices					
27	Our firm has attractive retirement package					
28	Our organization employs racial minorities					
29	Our firm gives financial assistance to employees who are pursuing their studies					
30	Our company provides recreational facilities to its employees					
31	Our organization employs disabled group of people					
32	Our firm has policies towards sexual harassment prohibition					
	(iv) Customers					
33	Our company charges competitive prices for its products					
34	Our firm is not involved in restrictive trade practices such as hoarding					
35	Our company provides accurate information about our products to all our customers					
36	Our organization respects privacy of customer information					
37	Our products meet applicable safety standards as prescribed by the regulatory body.					
38	Our firm competes with its rivals in an ethically fair manner					
39	Our company respects the rights of consumers					
	(v) Investors					
40	Our firm allows shareholders to access all relevant information about the company					
41	Our company allows shareholders to participate in company's decision-making process					
42	Our organization has regulatory mechanisms for prohibiting insider trading					
43	Our firm has investor grievances handling policies					
44	Our organization has policies that strengthen auditors independence					
45	Our company adheres to proper corporate governance mechanisms					
	(vi) Suppliers					
46	Our firm ensures that suppliers are always paid on time					
47	Our organization promotes ethically fair procurement practices in awarding tenders to the suppliers					
48	Our company pays competitive market prices to the suppliers					
49	Our firm source raw materials from suppliers that do not advocate use of child labor					
50	Our company deals with suppliers that do not violate human rights					
51	Our firm maintains supplier confidentiality					
52	Our company gives adequate period of notice of termination of contracts to its suppliers					

SECTION C: CORPORATE IMAGE

Indicate the extent to which you agree or disagree with the following statements in regard to corporate image by placing a tick (√) in the box which best reflects your opinion.

1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

	(i) Emotional Appeal	**1**	**2**	**3**	**4**	**5**
53	Our customers often give favourable feedback about our firm					
54	Our company normally receives positive feedback from various stakeholders					
55	Our firm is widely acknowledged as a trustworthy organization by various stakeholders					
56	Our company is driven by strong ethical practices					
	(ii) Quality of Products/Services					
57	Our organization does not struggle with product/service promotion programs					
58	Our firm often receives favorable feedback about our product/service quality					
59	Consumers of our goods and services often report that they are satisfied					
60	Our company often takes responsibility for the quality of its products/services					
61	Our firm provides after sale services to its customers					
62	Our company has elaborate quality assurance program					
	(iii)Vision and Leadership					
63	Our firm has supportive leadership					
64	Our organization has a clear vision for its future					
65	Our company has clear reporting structures					
66	Our firm has strategies for seizing market opportunities					
67	Our organization often attracts talented workforce					
	(iv)Innovation					
68	Our firm regularly develops new products and services					
69	Our organization adapts quickly to change dynamics in the market					
70	Our firm often embraces new business ideas					
71	Our company has an agile marketing strategy					
72	Our firm is driven by research and development (R&D)					

SECTION D: NON FINANCIAL PERFORMANCE

Indicate the extent to which you agree or disagree with the following statements in regard to firm performance by placing a tick (√) in the box which best reflects your opinion

1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree

	(i) Learning and Growth	**1**	**2**	**3**	**4**	**5**
73	Our firm train its employees consistently					
74	Our employees on average record good appraisal performance score					
75	Our employees rarely miss to report to work					
76	Our company has a lower employee turnover rate					
77	Our employees report to work on time					
	(ii) Customer Satisfaction					
78	Customer complaints are resolved within a short period of time					
79	Our firm consistently retains its customers					
80	Our existing customers refer new customers to our firm					
81	Our firm receives minimal customer suggestions					
	(iii)Internal Business Processes					
82	Our firm records minimal errors in execution of various business processes.					
83	Our company experiences minimal system breakdown in the course of its business operations					
84	There are few elementary operations required to complete a task (process complexity) in our organization					
85	Our firm utilizes its resources efficiently					

Thank for your participation

Appendix II: Data Collection Sheet

Company's Name……

No	Variable/Indicator		2014	2015	2016	2017	2018
	Financial Performance						
1	**Price to Book Value Ratio**						
	a	Market Capitalization					
	b	Net Assets Value					
2	**Firm Size**						
	a	Sales Turnover					
	b	Asset Base					

Summary of Data Collection Sheet

Company Name	Lin of Sales Turnover	Lin of Asset Base	Price to Book Value Ratio
ABSA Bank Kenya Plc	18.98	19.30	1.64
B.O.C Kenya Plc	20.82	21.57	1.20
Bamburi Cement Ltd	24.34	24.47	1.64
Britam Holdings Plc	23.88	25.05	1.55
British American Tobacco Kenya Plc	24.29	23.62	0.34
Car & General (K) Ltd	22.79	22.88	0.31
Carbacid Investments Ltd	20.50	21.69	1.12
Centum Investment Co Plc	22.35	24.41	0.65
CIC Insurance Group Ltd	23.42	24.23	2.07
Cooperative Bank of Kenya Ltd	22.18	24.29	1.70
Crown Paints Kenya Plc	22.69	22.22	2.52
Diamond Trust Bank Kenya Ltd	23.86	26.32	1.10
E.A.Cables Ltd	21.81	22.74	0.52
E.A.Portland Cement Co. Ltd	22.76	23.69	0.28
Unga	23.66	22.94	0.49
Equity Group Holdings Plc	24.66	26.74	2.14
Eveready East Africa Ltd	20.36	20.74	1.09
Express Kenya Ltd	18.89	19.88	0.65
Flame Tree Group Holdings Ltd	21.01	27.88	1.69
HF Group Plc	21.69	24.89	0.82
Home Afrika Ltd	26.76	28.97	-3.63
I&M Holdings Plc	23.52	26.12	1.15
Jubilee Holdings Ltd	23.98	25.14	1.45
Kakuzi Plc	21.65	22.16	1.20
Kapchorua Tea Co. Ltd	20.98	21.49	0.29
KCB Group Plc	24.90	27.01	1.45
KenGen Co. Plc	24.28	26.44	0.07
KURWITU	25.58	27.47	0.95
Kenya Power & Lighting Co Ltd	25.46	26.15	2.72

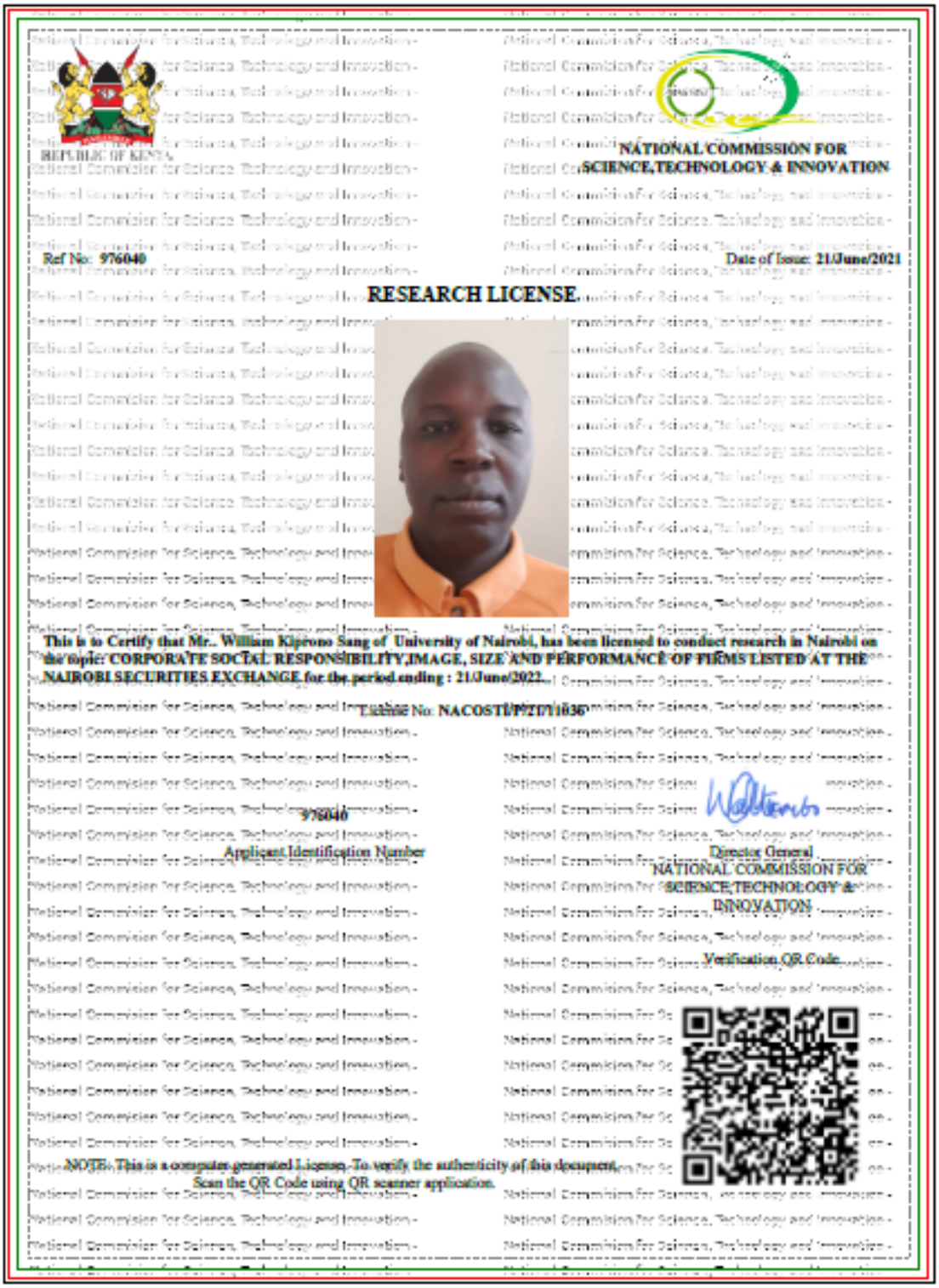
Kenya Re Insurance Corporation Ltd	23.54	24.29	0.56
Liberty Kenya Holdings Ltd	22.93	24.26	1.31
Longhorn Publishers Plc	21.04	20.88	1.15
Mumias Sugar Co. Ltd	22.46	23.92	0.21
Nairobi Securities Exchange Plc	20.47	21.16	2.39
Kenya Orchards	18.00	25.20	0.02
NIC Group Plc Ord	23.21	25.81	0.74
Olympia Capital Holdings ltd	20.06	21.19	0.08
Eaagards	18.49	20.34	0.95
Sameer Africa Plc	21.65	26.02	0.41
Sanlam Kenya Plc	21.11	23.99	1.66
Sasini Plc	21.59	23.26	0.35
Stanbic Holdings Plc	23.53	26.05	0.93
Standard Chartered Bank Kenya Ltd	24.00	26.21	1.67
Standard Group Plc	22.27	22.18	0.94
TPS Eastern Africa Ltd	22.58	23.54	0.38
Trans-Century Plc	22.81	23.67	0.15
Uchumi Supermarket Plc	23.04	22.45	0.67
Nation Media Group Ltd	23.16	23.20	3.07
Williamson Tea Kenya Ltd	21.94	22.92	0.41
WPP Scangroup Plc	22.28	23.30	1.11

Appendix III: Firms Listed at the Nairobi Securities Exchange

A	**AGRICULTURAL**	**F**	**ENERGY & PETROLEUM**
1	Eaagads Limited	34	KenGen Co. Limited
2	Kakuzi Limited	35	KenolKobil Limited
3	Kapchorua Tea Company Limited	36	Kenya Power & Lighting Co Limited
4	The Limuru Tea Company Limited	37	Total Kenya Limited
5	Sasini Limited	38	Umeme Limited
6	Williamson Tea Kenya Limited		
		G	**INSURANCE**
B	**AUTOMOBILES & ACCESSORIES**	39	Britam Holdings Limited
7	Car & General (K) Limited	40	CIC Insurance Group Limited
8	Sameer Africa Limited	41	Jubilee Holdings Limited
		42	Kenya Re Insurance Corporation Limited
C	**BANKING**	43	Liberty Kenya Holdings Limited
9	Barclays Bank of Kenya Limited	44	Pan Africa Insurance Holdings Limited
10	CFC Stanbic of Kenya Holdings Limited		
11	Diamond Trust Bank Kenya Limited	**H**	**INVESTMENT**
12	Equity Group Holdings Limited	45	Centum Investment Co Limited
13	Housing Finance Group Limited	46	Home Afrika Limited
14	I&M Holdings Limited	47	Kurwitu Ventures Limited
15	KCB Group Limited	48	Olympia Capital Holdings Limited
16	National Bank of Kenya Limited	49	Trans-Century Limited
17	NIC Group PLC		
18	Standard Chartered Bank Kenya Limited	**I**	**INVESTMENT SERVICES**
19	The Co-operative Bank of Kenya Limited	50	Nairobi Securities Exchange Limited
D	**COMMERCIAL AND SERVICES**	**J**	**MANUFACTURING & ALLIED**
20	Atlas African Industries Limited	51	A.Baumann & Company Limited
21	Express Kenya Limited	52	B.O.C Kenya Limited
22	Hutchings Biemer Limited	53	British American Tobacco Kenya Limited
23	Longhorn Publishers Limited	54	Carbacid Investments Limited
24	Nairobi Business Ventures Limited	55	East African Breweries Limited
25	Nation Media Group Limited	56	Eveready East Africa Limited
26	Standard Group Limited	57	Flame Tree Group Holdings Limited
27	TPS Eastern Africa Limited	58	Kenya Orchards Limited
28	Uchumi Supermarket Limited	59	Mumias Sugar Company Limited
29	WPP Scangroup Limited	60	Unga Group Limited
E	**CONSTRUCTION & ALLIED**	**K**	**TELECOMMUNICATION & TECHNOLOGY**
30	Bamburi Cement Limited	61	Safaricom Limited
31	Crown Paints Kenya Limited		
32	E.A.Cables Limited		
33	E.A.Portland Cement Company Limited		

Source: NSE, 20th August, 2020

Appendix IV: Research License



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