ENVIRONMENTAL CORPORATE SOCIAL RESPONSIBILITY, CONSUMER ORIENTATION AND CORPORATE SUSTAINABILITY OF PRODUCER FIRMS IN KENYA

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DECLARATION

Declaration by Candidate

This is to certify that this thesis is entirely my original work. It has not been submitted to any other institution for another degree or qualification, either in full or in part. Throughout the work I have acknowledged all sources in its compilation.

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DEDICATION

I dedicate this thesis to my family members who have provided me with inspiration and encouragement over this long journey, stating their pride in my efforts. Without their support, this course may not have been completed. To heavenly father to whom be all glory, all honour and all praise.

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ABSTRACT

In recent years, the importance of environmental corporate social responsibility in determining sustainability of firms has increased. However, critical concerns have been raised about the significant effect on corporate sustainability which has continued to be faced with inconsistent and at best, inconclusive results. The purpose of the study was to establish the moderating effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability of producer firms in Kenya. The motivation was to gain understanding of consumer orientation moderating role on corporate sustainability. The study was based on stakeholder theory, new collective theory of consumer behavior and sustaincentrism theory. The study adopted explanatory survey research design guided by pragmatism philosophical paradigm. The study respondents were 2352 mainly drawn from a target population of 113 registered producer firms. Cochran's sample size formula was used to obtain a sample size of 98 firms, respondents 445 managers and 515 consumers. Multi stage sampling techniques was applied which involved proportionate stratified sampling, stratified random sampling and simple random sampling. Questionnaires were administered to the sampled consumers and managers while interview schedules were organized to collect data from financial managers. Data was merged by use of composite index design while reliability and validity of the data collection instruments were tested statistically using Cronbach's alpha coefficient and average variance extracted respectively. The data collected was analyzed using descriptive statistics, inferential statistics and content analysis. Multiple and hierarchical regression analysis were used to test the hypotheses. The study found positive significant relationship between environmental reporting and corporate sustainability ($\beta = 0.575$, $p < 0.05$), environmental investment and corporate sustainability ($\beta = 0.264$, $p < 0.05$), social environment initiative and corporate sustainability ($\beta = 0.221$, $p < 0.05$) and between consumer orientation and corporate sustainability ($\beta = 0.117$, $p < 0.05$). Subsequently, when moderated with consumer orientation it was found that environmental reporting had positive significant effect on corporate sustainability ($\beta = 0.662$, $P < 0.05$) and environmental investment also had positive significant effect on corporate sustainability ($\beta = 0.251$, $P < 0.05$). On the other hand, social environment initiative had negative but insignificant effect on corporate sustainability ($\beta = -0.332$, $P > 0.05$). Similarly, overall test of significance with F-test values $F(11, 87) = 56.166$, $P < 0.000$ confirmed high significant effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability. Based on the findings it was concluded that the study extended the use of new collective theory of consumer behavior and sustaincentrism theory but limited the use of stakeholder theory. Subsequently, the study added new variable consumer orientation to extend the literature on the match between environmental corporate social responsibility and corporate sustainability. The findings clarified that policy makers of producer firms should pay close attention to the formulated policies or strategies of environmental reporting, environmental investment and social environment initiative which boost superior firm sustainability. Further research can be done based on sub-constructs of personal orientation, social orientation and their moderating role on social environment initiative as it was insignificant in this study.

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OPERATIONAL DEFINITION OF TERMS

Community cooperation refers to partnership with community through contributions of money, time, goods and expertise voluntarily given to the public good (Schuyt, 2003).

Consumer orientation refers to personal and social inclination toward the adoption of a predictable purchasing behavior during a given consumption act (Kantanen, 1993).

Corporate sustainability is embedding the three pillars of economic growth, social responsiveness and environmental quality (Chow & Chen, 2012) over a longer period of time meeting today's generation value needs without compromising value creation of future generations.

Corporate Transparency is where information can be presented in a self revealing, passive, reliable and transparent according to the interests of all stakeholders without obstruction.

Eco-design is redesigning products to minimize environmental impact.

Eco-efficiency means creating more goods and services with ever less use of resources.

Eco-labeling it is the use of green stickers communicating firm's social responsibility to the public indicating its attainment of environmental standards through market based mechanisms like eco-labelling certificates (Courville, 2011).

Economic growth entails competitive market-based activities like profits, market share, revenues, customer value and satisfaction (Belz & Peattie, 2012) that enable a firm to remain economically viable for an indefinite time through value creation.

Employee development is a process of achieving human development in an inclusive, connected, equitable, prudent and secure manner (Gladwin *et al*., 1995).

Environmental corporate social responsibility is environmentally friendly actions not required by law, also referred to as going beyond compliance, the private provision of public goods or voluntarily internalizing externalities (Lyon & Maxwell, 2008). This is done through environmental reporting, investment and social initiative which contribute to corporate sustainability.

Environmental investment implies expenditure on environmental natural resources with return expected in terms of profit to business and other stakeholders.

Environmental protection measures are range of activities of proactive environmental management and environmental performance (Claver *et al*., 2007).

Environmental quality this is attainment of intragenerational and intergenerational resource equity on the natural environment which balances the use of natural capital.

Environmental reporting is information disclosure about environmental performance based on auditing standards like Global Reporting Initiatives.

Personal orientation is choosing a specific behavior based on intrinsic inherent inspirations which in turn influence individuals' attitudes toward purchase of products or services.

Producer firms are businesses or companies which deal with production, harvesting, procurement, grading, pooling, handling, marketing and selling.

Social environment Initiative is the social progress responsibility of the organization to meet the basic human needs of its stakeholders beyond pure profits.

Social orientation is social conformity referred to as an innate drive to look externally to get social approval (Klein, 1997) when purchasing products or services.

Social responsiveness is achievement of continuous contribution to the social well-being of society and individuals.

Trade network is fair trade linkages that support locals on businesses which increase profits.

ABBREVIATIONS

AVE : Average Variance Extracted

CAID : Cronbach's Alpha if Item Deleted

CEP : Corporate Environmental Performance

CI-TC : Corrected Item- Total Correlation

CO : Consumer Orientation

CR : Composite Reliability

CS : Corporate Sustainability

CSR : Corporate Social Responsibility

ECSR : Environmental Corporate Social Responsibility

EI : Environmental Investment

ER : Environmental Reporting

ESR : Environmental Social Responsibility

FA : Factor Analysis

GRI : Global Reporting Initiative

HRM : Human Resource Management

ILO : International Labour Organization

KMO : Kaiser Meyer Olkin

PCA : Principal Component Analysis

SEI : Social Environment Initiative

VIF : Variance Inflation Factors

ZCOEI : Z score Consumer Orientation * Z score Environmental Investment

ZCOER : Z score Consumer Orientation * Z score Environmental Reporting

ZCOSEI : Z score Consumer Orientation * Z score Social Environment Initiative

CHAPTER ONE

INTRODUCTION

1.0 Overview

Producer firms are doing far more than ever before in guarding against environmental ethical compromises, recognizing their environmental reporting, environmental investment, social environment initiative, creating enhanced governance and becoming more accountable to their stakeholders. This chapter covers background of the study, statement of the problem, specific objectives, hypotheses, significance, scope of the study and organization of the study.

1.1 Background of the Study

Corporate sustainability (CS) has been widely debated as a fringe concern of the corporate agenda to the mainstream part of global issue in the recent past. This is sustainable business development which can be achieved through three parts; social equity, economic sustainability and environmental sustainability which together they form what is called the Triple Bottom Line (TBL) according to Emery (2012). However, Norman and MacDonald (2004) criticized the very concept of TBL as being misleading in its nature. They argued that it is impossible to balance social and environmental bottom lines against financial as they stated that there is no way to quantify the prior two in a way that is comparable to the latter. Milne and Gray (2013) criticized the way that many corporations use TBL as a synonym to corporate sustainability and claim that TBL becomes a near-sighted way for businesses to show concern without any real ecological understanding.

In addition, Ehrenfeld (2004) criticized TBL and other corporate sustainability ideas in a broader sense, stating that although these measures may lead businesses to do less harm than they might and reduce the pace of unsustainable environmental and social development, the global problems are still growing at alarming rates. Some research still implies that companies only engage in sustainability with a financial motive. This means that these claims become a way for businesses to officially relieve their problems without dealing with the underlying causes. Such claims may amount to little more than soothing palliatives that, in fact, may be moving us towards greater levels of un-sustainability (Milne & Gray, 2013). According to Savitz and Weber (2006) many companies today still believe that the financial aspect of business is the only way to measure success and that sustainability is not a matter of being responsible for the damages the company makes to the planet, but rather a matter of smart management.

Sustainability challenges decision makers of environmental corporate social responsibility (ECSR) to manage resources across time (Bansal & DesJardine, 2014). Porter and Kramer (2006) argued that environmental social responsibility of organizations has become an inevitable priority for business leaders in every country to achieve sustainability. Moreover, Vogel (2006) maintained that neglecting environmental issues may be costly in the long run in terms of sustainability, because it affects the legitimacy of the organization. This is not only a question of espousing environmental values but firms are expected to fully understand the impact of sustainability on the resources that will be available for future generations (Marcus & Fremeth, 2009).

Future generations should also enjoy shared value creation of sustainability (Porter & Kramer, 2011). This is done through environmentally friendly actions not required by law, also referred to as going beyond compliance, the private provision of public goods or voluntarily internalizing externalities (Lyon & Maxwell, 2008). Therefore, ECSR is inclusion of public interest into corporate decision making to achieve CS that is honoring triple bottom line represented by People, Planet and Profit (Harpreet, 2009). Although, ECSR encapsulates: environmental commitment and awareness, stakeholder engagement, measuring, reporting and auditing, transparency, commitment to continuous improvement and going beyond compliance (Lavanya & Anbalagan, 2012). They are well articulated under the three variables of ECSR.

Arguably, ECSR entails complex and systemic interactions between business and environment, the study focuses on three variables social environment initiative (Walsh *et al*., 2003). In addition, it is complemented by environmental investment, one of the best-known CSR activities according to Brammer *et al*. (2006). Furthermore, it involves environmental reporting as a tool that can be used to disclose information about environmental responsibilities, since it can alert a wide variety of stakeholders regarding corporate environmental consequences (Clarkson *et al*., 2011). Subsequently, growing literature examines the reasons why companies engage in environmental CSR (Flammer, 2013) and how it relates to CS.

It is argued that firms proactively manage their environmental impacts to achieve CS through consumer support (Lyon & Maxwell, 2011), gain competitive advantages (Porter & Kramer, 2007) and generate goodwill in communities and potential consumers (Portney, 2008). Firms can avert mandatory environmental regulations, minimizing inefficiencies which lead to cost reduction and strategic win/win

opportunities of sustainability (Lyon & Maxwell, 2008) and promote the process of continuous learning from multiple stakeholders (Porter & der Linde, 1995). In addition, Ambec and Lanoie (2008) identified the following financial benefits from sustainable investments: revenue from selling green technology, better access to certain markets, differentiated products, better risk management and lower cost of material, energy, services, capital and labor. Shareholders may be willing to accept lower returns on capital to ensure that the production is ethically defensible (Baron, 2009).

Environmental CSR is presented as the new stakeholder approach referring to the evolution of stakeholder management while maintaining the drive towards CS. Corporate sustainability at the firm level is conceptualized as consisting of three interlocking pillars: economic growth, environmental quality and social responsiveness (Bansal, 2005; Konrad *et al*., 2006). Subsequently, Szekely and Knirsch (2005) elaborated the need to balance the three CS interlocking pillars for businesses. The balance can be achieved in terms of sustaining and expanding economic growth, shareholder value, prestige, corporate reputation, customer relationships, quality of products and services, adopting and pursuing ethical business practices, creating sustainable jobs, building value for all the stakeholders and attending the needs of the underserved. Admittedly, the three pillars described by Elkington (2004) as triple bottom line are inevitable expansive results of the environmental agenda that ensures organizational growth on sustainable basis (Sharma & Devi, 2009).

Environmental CSR activities are thought to create consumer orientation (Pons *et al*., 2006). According to Kantanen (1993) consumer orientation (CO) refers to an

individual's specific inclination toward the adoption of a predictable behavior during a given consumption act. The predicted behavior is that of green consumer. Of course, Edwards (2010) explained green consumers as those consumers who are highly environmentally concerned. Their support for the environment by purchasing environment friendly products could have a large impact on firm profitability and subsequently sustainability. It points to the evidence showing that majority of surveyed consumers indicated they would prefer and would be willing to pay an extra cost for any product they could identify to have been produced in ethical ways (Elliott & Freeman, 2003). Perhaps a new generation of green consumers is willing to pay higher prices for clean products and firms are simply responding to this shift to achieve sustainability. In support, Besley and Ghatak (2007) contend that more responsible firms earn higher profits as a reputational premium from consumers to support good behavior.

However, environmental socially responsible activities involve costs which have to be passed on by producer firms to individual consumers increasing the cost of products. This is contrary to firms' objectives to generate revenue through cost reduction (Ambec & Lanoie, 2008) in order to be sustainable businesses. High price of products affects the same consumers experiencing income volatility, especially when it declines as a result of income tax system. In addition, the current third world countries' economic recession imposes significant hardships on consumers. It heightens stress about finances and may decrease consumer purchasing power of products of producer firms (Auger & Devinney, 2007) which affect their sustainability. Furthermore, Shaviro (2007) confirmed that given the current high levels of household debt and rising personal bankruptcy rates, this approach could create more problems than it solves affecting corporate sustainability.

Higher cost is not where producer firms, goods and services face strong competition since potential consumers' decisions are sensitive to price increase. For instance Lindsey (2004) noted that consumers would be less likely to pay a premium for CSR Fair-trade products due to commodity prices which keep on rising as this might distort purchasing power and loyalty of consumers. Subsequently, results of various studies revealed that majority of consumers actually do not engage in active purchases even though they are ethically-minded (Bray *et al*., 2010). Based on these arguments, the improvement of environmental performance possibly does not always generate economic profit which affects corporate sustainability. Consumer preferences are likely to be driven by social and personal orientation (Parsons & Shills, 1967; Tsai, 2005). The issue has been in sustainable consumption where the consumer's attitude does not reflect their behavior when it comes to purchasing and adopting environmentally friendly products (Claudy *et al*., 2012).

Firms influence on how sustainability has been socially constructed has led consumers to feel that economic concerns are still treated as singularly important in decision making frameworks, such as triple bottom line reasoning (Milne & Gray, 2013). Similarly, Falck and Heblich (2007) posited that CSR is not altruistic do-gooding but rather a way for both organizations and societies to prosper, particularly when the socially responsible initiative is conceived as a long-range plan of action of sustainability. Of course, if the economic objectives overtook the businesses concern about social and environmental issues, their corporate sustainability statements has little or no worth (Belz & Peattie, 2012). Interestingly, major concerns have been raised regarding consumers hesitancy to pay more for green products (Sharma & Iyer, 2012).

Indeed, the simple goal of improving the life of consumers while making a positive impact on the environment has been elusive to scholars and managers alike (Polonsky, 2011). By extension elusiveness affects Producer firms in Kenya which are businesses or companies dealing with production, harvesting, processing, procurement, grading, pooling, handling, marketing and selling. This is because exports of primary produce of the members or import of goods or services for their benefit have to be more environmentally conscious to satisfy consumers. Producer firms in Kenya are confronted with several dilemmas, which pertain to the question of how to balance the desire to win consumers with the need for local responsiveness of sustainability. Such dilemmas raise questions as to whether the ECSR being practiced is relevant to the African context (Visser *et al*., 2006).

The main dilemma being the belief that ‘green fatigue’ is developing among many consumers (Greenberg, 2008) who are simply tired of hearing or seeing environmental claims from businesses. These consumers either ignore environmental claims altogether or even act purposefully to support other organizations producing ‘brown’ products (Bagnoli & Watts, 2003). Subsequently, poor purchase is experienced because of direct results of the immense amount of false advertising regarding supposed environmentally friendly products (TerraChoice, 2010). Thus, a growing collection of systemic failures provide a compelling backdrop to these arguments as mainstream conceptions of corporate sustainability failure to address (Walsh *et al*., 2010).

Moreover, managers of producer firms often use ECSR as a defensive strategy in dealing with their damaged brand images or when business practices are under scrutiny (Waller & Conaway, 2011). The argument being that consumers can not

readily test many intangible ECSR actions, hence green claim scepticism has increased (Gibson, 2009). In addition, environmental issues have come to the forefront as the primary global challenge in the twenty first century (Goldman Sachs, 2007). The essence of this challenge lies in what (Hardin 1968, p. 1245) referred to as ‘‘the tragedy of the common good.’’ In this regard, the rational man finds his share of the cost of the waste he discharges into the commons to be less than the cost of purifying wastes before releasing them. Since this is true for firms, they are locked into a system of ‘fouling their own nest’ so long as they behave only as independent, rational and free-enterprisers. When this idea is transposed to the corporate world, similar tragedy is experienced in Kenya creating skepticism of consumers.

Despite streams of research over the years little is known about sustainability. More individual studies have yielded inconclusive and contradicting results (Lubin & Esty, 2010). The widespread disagreement and inconclusive findings in the earlier researches are at a loss to account for either the frequency or nature of ECSR actions. Conventional wisdom concerning the environment is that environmental social responsibility (ESR) is a cost item encumbered by the firm, which may erode sustainability competitiveness (Ambec & Lanoie, 2008). Therefore, systemic research is needed in order to account for the multi stakeholder and open-systems nature of the organization with view of consumers in Kenya. This is through unveiling organizational mechanisms that link environmental CSR to CS guided by stakeholder theory, new collective theory of consumer behavior which combines theory of planned behaviour and value belief norm theory, and sustaincentrism theory.

1.2 Statement of the Problem

In the recent years, sustainability of practices and policies linked to productive activities of producer firms in Kenya has been the source of major concern to stakeholders and scholars alike. The concerns have been corporate complicity in environmental destruction, labour exploitation and social disruption is abundant (Visser, 2006). As Moon and Vogel (2008) contend, governments structure the behavior of companies through regulations and incentives to enhance sustainability. However, with respect to developing country like Kenya Vogel and Moon (2008), highlight a predominant corporate sustainability concern; that governments refuse to enforce standards and regulations relating to environmental corporate social responsibility and ignore corporate irresponsibilities as an inducement for investment.

Indeed, Campbell (2007) corroborates this view, stating that certain national governments have eased business regulations that help militate against socially irresponsible corporate behavior which affect sustainability. Campbell (2007) emphasized that it should not be assumed that states will always enforce regulations effectively. Inefficient legal systems and uncertain regulatory frameworks allow for different interpretations and varying degrees of compliance (Marquis *et al*, 2007). In some cases, corporations in Kenya seek to control or otherwise capture regulators in ways that bend them toward the will of the corporations they are supposed to oversee (Campbell, 2007). Therefore, Kenyan producer firms have faced questions about the sustainability of their production and marketing activities as they are seen to have merely jumped on the corporate sustainability bandwagon.

Although, sustainability paradigm is particularly critical in developing country like Kenya, given that it is a key driver of the three vision 2030 pillars. It is therefore

apparent that different regulatory systems can produce different forms of environmental corporate social responsibility (Moona & Vogel, 2008) affecting sustainability. It is not seen as a mechanism to maintain continuity of firms but mimetic processes (Matten & Moon, 2008) and remains rather unclear with varied interpretations that show the concept is still evolving (Montiel & Delgado-Ceballos, 2014). More so if the overall logic is that it increases the trustworthiness of a producer firm and strengthens the relationships with critical stakeholders (Barnett, 2007). Indeed one of the critical stakeholders is the consumers, making producer firms to respond to their desire for green offerings (Sharma *et al*., 2010).

Despite the potential of corporate sustainability to create significant value for humanity and nature, the link between consumer orientation and the much hyped corporate sustainability has been relatively neglected in studies of environmental corporate social responsibility in developing country like Kenya. It is still limited leaving the question of whether in the aggregate it pays to be environmentally responsible somewhat insufficient where multiple individual studies have yielded inconclusive or conflicting results (Rosenthal *et al*., 2001). Subsequently, it has been found that in developed countries majority of consumers actually do not engage in active purchases even though they are ethically-minded (Carrington *et al*., 2010; Shaw *et al*., 2007), which raises concern in Kenyan scenario. This indicates that consumer preferences are still not significantly related to the environmental burden through the production process, but rather through product performance (Hibiki & Managi, 2010).

Therefore, environmental corporate social responsibility being the dogma of producer firms in trying to out-do each other in terms of endearing themselves to consumers

does not always translate to sustainability (Gordon & Lacy, 2011).Studies on environmental corporate social responsibility, consumer orientation and corporate sustainability have thus far focused more on developed than developing countries (Maignan, 2001) and when conducted in developing economies like Kenya, research on corporate social responsibility tends to generalize to all developing countries (Frynas, 2006). Additionally, environmental corporate social responsibility research in the developing country context mostly analyses the business side of corporate social responsibility (Zulkiflli & Amran, 2006) but rarely examine the consumer side on environmental corporate social responsibility, particularly on how consumers responded to environment to achieve sustainability.

According to Niinimaki (2010) uniqueness, individuality, constant change and materialistic values are at the center of our society. They impact consumers purchase and post-purchase decision processes in Kenya. Hence research on consumer perception of social responsibility in developing countries needs to be conducted (Jamali, 2007). Relatively, very little is known about the link between environmental corporate social responsibility and corporate sustainability, there is need to conduct more multi-level and multi-systemic research before this relationship can be fully understood (Griffin *et al*., 1997; Margolis *et al*., 2003). Subsequently, inconclusive results of environmental corporate social responsibility on corporate sustainability has led researchers like Du *et al*. (2007) to call for more research based on field data collected in actual marketing environments and in the context of competitive offerings to consumers in developing country like Kenya.

This study responds to the call made by these scholars to open the organizational black box in order to understand the organizational changes associated with greening

a firm (Delmas & Toffel, 2008). Specifically, Margolis and Walsh (2003) have stressed the importance of developing models that incorporate omitted variables, test moderating, mediating mechanisms, contextual conditions and establish causal links between environmental corporate social responsibility and corporate sustainability. It is in this view that researcher introduced important moderator variable consumer orientation which constituted social and personal orientation according to (Parsons & Shills, 1967; Tsai, 2005). Consumer orientation can create enhancing, buffering and antagonizing effect. Thus, based on aforementioned inconclusive findings, producer firms in Kenya were used to test this relationship with moderator being consumer orientation.

1.3 Objectives of the Study

The general objective of the study was to analyze moderating effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability of producer firms in Kenya.

1.3.1 Specific Objectives

This study was guided by the following specific objectives.

1. To establish the effect of environmental reporting on corporate sustainability.
2. To evaluate the effect of environmental investment on corporate sustainability.
3. To assess the effect of social environment initiative on corporate sustainability.
4. To establish the effect of consumer orientation on corporate sustainability.
5. To analyze moderating effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability.

1.4 Hypotheses

The study was guided by the following hypotheses.

H_{01}: There is no significant effect of environmental reporting on corporate sustainability.

H_{02}: There is no significant effect of environmental investment on corporate sustainability.

H_{03}: There is no significant effect of social environment initiative on corporate sustainability.

H_{04}: There is no significant effect of consumer orientation on corporate sustainability.

H_{05a}: Consumer orientation does not moderate the relationship between environmental reporting and corporate sustainability.

H_{05b}: Consumer orientation does not moderate the relationship between environmental investment and corporate sustainability.

H_{05c}: Consumer orientation does not moderate the relationship between social environment initiative and corporate sustainability.

1.5 Significance of the Study

The significance of this study is contribution to the literature of environmental corporate social responsibility, consumer orientation and corporate sustainability of producer firms in Kenya. It also shed more light on the new understanding of empirical evidences on the relationship between ECSR and CS. This study is significant to researchers and institutions of higher learning in advancing stakeholder theory, new collective theory of consumer behavior and sustaincentrism theory in posing pertinent questions to guide future research in developing countries.

In addition, Knowledge gained from this study is useful to top management of producer firms in Kenya in coming up with better policies of ECSR to society and to address sustainability benefits to the firms. On the other hand it is beneficial to Kenyan government through the Ministry of Trade to redraw its laws and policies to suit the current ECSR in business industry. The use of dyadic data set approach pave way for further empirical investigation into the current debate on whether ECSR is linked to sustainability of firms positively, neutral or negatively.

1.6 Scope of the Study

Concepts and determinants of CS of producer firms call for analysis of a large number of factors such as total quality environmental management, ecological sustainable competitive strategies, technology for nature swaps and corporate population impact control among others (Shrivastava, 1995). It was beyond the scope of this study to analyze all these variables. This study concentrated on three key environmental corporate social responsibility measures that influence corporate sustainability of producer firms. Specifically this include: environmental reporting, environmental investment and social environment initiative.

Geographic coverage of this study focused on 113 companies of tea and horticulture in Kenya as shown in (Appendix 7) in the five Counties namely: Baringo, Kericho, Nakuru, Nandi and Uasin Gishu. The choice of these Counties as the research area was guided by the fact that they are located where producer firms of tea and horticultural products practice ECSR. Similarly, these firms chose to participate in a number of different socially responsible endeavours which as a result coin their strategy for CSR (Thompson *et al.*, 2011). This is in line with Davis (1967)

observation on corporations' power to control and influence the quality of employees, customers, shareholders and residents of local communities in which they operate.

Subsequently, studies focusing on CS as a dependent variable have traditionally used managers of the firm as source of information due to the fact that managers could maximize profits, satisfy societal concerns and improve the environment by adopting ESR (Siegel, 2009). This study adopted the same method and sampled consumers who were affected by the firms' ECSR and they lived within a radius of ten kilometers. It was done so because in terms of purchase of organic products, it is thought that most consumers base their purchase decision on the environmental values (Browne *et al.*, 2000). The study concentrated on a probability sampled computed size of 445 managers and 515 consumers of 98 producer firms. The 45 financial managers who participated in the interview were drawn randomly from the sampled financial managers.

1.7 Organization of the Study

Chapter one provided background introduction of the study, followed by statement of the problem, objectives, hypotheses, significant, scope of the study and organization of the study. The second chapter covered literature review which focused on relevant constructs such as corporate sustainability, environmental corporate social responsibility, consumer orientation and control variables. The chapter also proposed the theories and conceptual framework. The third chapter detailed research design, study area, target population, sample design and techniques, data collection, measurement of variables, data analysis, ethical consideration and limitation of the study. Chapter four indicated descriptive statistics, reliability and validity test, factor analysis, inferential statistics and discussion of empirical results while chapter five

provided a summary of the findings, conclusions, implication of the study and recommendations for further research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews related literature on corporate sustainability, environmental corporate social responsibility, consumer orientation, control variables and their fundamental aspects as well as definitions. It presents integration of the study variables by use of stakeholder theory, new collective theory of consumer behavior, sustaincentrism theory and conceptual framework.

2.1 Corporate Sustainability

One of humankind's greatest challenges this 21st century is the assurance of fairness and to balanced CS of producer firms. The concept of CS was once considered heresy at variance with the dominant orthodoxy of business which has now become dogma accepted, legitimate and even as a requirement (Hoffman, 2001). Moreover, Gladwin *et al*. (1995) argued that sustainability is a construct that is fundamentally infused with multiple objectives, ingredients, complex interdependencies and considerable moral thickness leading to its fuzziness, elusiveness, contestability and ideologically controversy. Business community has constructed sustainability in ways that have led to significant improvements in how businesses engage with ecological and societal

issues and in the understanding of relationships between business, nature and society (Aragon Correa, 2013).

Although it is interpreted differently, the definition is organizational wide approach of embedding the three pillars: economic growth, social responsiveness and environmental quality dimensions (Chow & Chen, 2012) into its strategic and operational activities. Montiel (2008) asserts that CS has been viewed as an economic development that meets today's generation resource needs without compromising the opportunity and ability for future generations. Martin and Schouten (2012) argued that sustainability is the ability of a system to maintain or renew itself perpetually. The original or literal meaning of the term is equivalent to permanence and implies notion of durability, stability and eternalness (Cheney *et al*., 2004). Explanation by Bansal and Desjardine (2014), point out that business sustainability is the ability of firms to respond to their short-term financial needs without compromising their ability to meet their future needs.

The Definition adopted in this study was borrowed from Szekely and Knirsch (2005), who defined sustainability as balancing the three CS pillars to then listed ten different dimensions to be sustained namely: economic growth, shareholder value, prestige, corporate reputation, customer relationships, the quality of products and services, adopting and pursuing ethical business practices, creating sustainable jobs, building value for all the stakeholders and attending the needs of the underserved. This conceptualizes sustainability at the firm level as consisting of three interlocking pillars: economic growth, environmental quality and social responsiveness (Bansal, 2005; Konrad *et al*., 2006).

The three pillars are described further by Triple Bottom Line or the famous ‘three P’s’ which represents People, Planet and Profit (Fauzi, *et al*., 2010). Their relationship can be described by a Venn diagram composed of three overlapping circles, with each circle representing a separate dimension of economic growth, environmental quality and social responsiveness (O’Riordan, 1998). It is inevitable the outcome of environmental agenda that focuses on corporations not just on the economic value that they add, but also on the environmental and social value that they adds or destroys. The CS is well articulated under the three pillars.

2.1.1 Economic Growth

Economic growth being one of the measures of corporate sustainability is market-based activities that enable a firm to remain economically viable for an indefinite time through value creation. Explanation on economic growth by (Porter & Kramer, 2011) has called for companies to create shared societal and firm value; one argument on which the call rests is that it creates growth by opening up many ways to serve new needs, gain efficiency, create differentiation and expand markets. The concept of shared value is defined as policies and practices that enhance the competitiveness of a firm while simultaneously advancing the economic and social conditions in the communities in which it operates (Porter & Kramer, 2011). Subsequently, economic growth of a firm can be better explained by economic objectives which include: profits, market share, revenues, customer value and satisfaction (Belz & Peattie, 2012). Businesses need to be seen as economic partners in their communities by contributing to a mutual win-win situation (Rogan, 2009) and not just profit centres.

In addition, corporate prestige being one of the dimensions of economic growth improves the overall image of a firm and thus increases consumers’ loyalty or support

sales efforts. Positive social image concerns may also drive the choice of CSR products of the firm, when their consumption is a means of buying social prestige or of avoiding social stigma (Bénabou & Tirole, 2010). Positive CSR image induce consumers to get engaged with the company in several ways: by purchasing a product, seeking employment and investing in the company (Sen *et al*., 2006). Similarly, Dinu (2010) considers that sustainable development in terms of economic growth is essential to achieve and maintain the economic success and commercial advantage. Economic growth of organization can be achieved through prestige of seeking conspicuousness, uniqueness, social nature, hedonistic and reputation.

A firm's reputation for being committed to sustainability is an intangible resource that can increase the value of a firm's expected cash flows or reduce the variability of its cash flows (Robinson *et al*., 2011). Not only does reputation allow stakeholders with perfect information about a firm's product quality or commitment to CS. It also assesses the firm's ability to create value as well as it serves as a signal of the difficulty of competitors to imitate firm's past interactions with stakeholders. It can create value by way of enhancements in the capacity to attract, motivate and retain fundamental stakeholders such as investors, employees, consumers and suppliers. Economic growth enables firms to contribute to the creation and retention of jobs, directly through its own activities. Indirectly through the purchasing policy, use of subcontracting with a living wage, adequate healthcare, life insurance, pension and benefits highly desirable for an economically healthy society.

2.1.2 Environmental Quality

Environmental quality is attainment of intragenerational and intergenerational resource equity by limiting the impact of firm activities on the natural environment

while minimizing the use of natural capital. It is based on three technical principles to be ecologically sustainable namely: the use of ecosystem resources must not exceed their rate of regeneration, waste emissions must not exceed the ecosystem's assimilative capacity and use of non-renewable resources must not exceed the rate of investment in renewable substitutes (Goodland & Daly, 1996). This can be achieved through total control of pollution by responsible waste disposal, innovative use of processes and technologies in the production process. Moreover, it is attaining product stewardship by using fewer materials in producing a product and by disassembling for recycling or reuse at the end of the product lifecycle.

In addition, Bansal and DesJardine (2014) emphasized the importance of consideration of time in general strategic decision-making on natural resources and described how short-termism can lead to negative outcomes for firms and environment. They argued that if investment decisions are made with a longer-term perspective they tend to naturally align business interest with societal interests in terms of resources. Sustainability of environmental quality challenges decision makers to manage resources across time (Bansal & DesJardine, 2014). Arguably, it is the firm's ability to meet environmental needs of the present generation without compromising the ability of future generations to meet their own needs (Montiel, 2008). The needs of current and future generations cannot be met unless there is respect for natural systems and standards of protecting core social and environmental resources.

2.1.3 Social Responsiveness

This is the achievement of continuous contribution to the social well-being of society and individuals. In support, Carroll (2000) argued that in order to perform the good

corporate citizen role, organizations should fulfil a number of responsibilities. *Economic responsibilities* that is attainment of fair return on capital to satisfy shareholders, deliver value for money to satisfy customers, create new jobs and new wealth for the business. *Legal responsibilities* mean to achieve the set standards of national and international laws. *Ethical responsibilities* that is to achieve set moral standards of being ethical and fair, respect people's rights, avoid harm or social injury and prevent harm caused by others and lastly, *philanthropic responsibilities* that is to achieve performance of beneficial activities for society. Social sustainability is over more present in our daily life, and for the companies that work honestly and seek to have sustainable outcomes of all stakeholders, the consumers increasingly will reward (Martin & Schouten, 2012). In essence companies need to be more proactive in engaging with stakeholders in order to achieve sustainability (Gordon & Lacy, 2011).

However, social inequities and the erosion of many ecological systems continue to worsen despite progress made. There is a growing argument that sustainability has been subverted by corporate interests, such that it has become merely a label for strategies actually driven by standard economic and institutional mechanisms (Jacobs, 1993). Similarly, claims of being ‘totally natural’ or ‘all-natural’ are no longer acceptable according to TerraChoice (2010) in claiming environmental consciousness, as these claims, although sometimes true, have been used as deceptive methods by organizations in appearing ‘greener’ than they really are to consumers. It is the foundation of any economy and social well-being that consumer orientation affects sustainability of firms through environmental corporate social responsibility. Businesses cannot exist unless consumers exist and run as long as the consumers are satisfied with their products or services.

2.2 Environmental Corporate Social Responsibility

Environmental corporate social responsibility is an integral part of CSR and plays an increasingly important role in the corporate landscape (Flammer, 2012). It is environmentally friendly actions not required by law, also referred to as going beyond compliance, the private provision of public goods or voluntarily internalizing externalities (Lyon & Maxwell, 2008). Environmental responsibility mainly relates to corporate activities of protecting and not harming the natural environment and social responsibility comprehends initiatives that protect social welfare of key stakeholders (Bhattacharya & Sen, 2004). Furthermore, they emphasized that it focuses on two aspects, first a reorientation of the firm towards its ecological environment (ecocentrism) and second, a reorientation towards its social environment (socialcentrism). In addition, some extant studies also examine the process of corporate accountability through engaging in social and environmental reporting and explore its potential in contributing towards sustainability (Milne *et al*., 2009).

Moreover, environmental investment on environmental practices may be the result of a large set of factors and motivations, not only regulation (Ghisetti & Quatraro, 2013). These motivations may be related to costs reduction or revenues increase (Ambec & Lanoie, 2008). Similarly, social environment initiative emerges from relationships between an organization and its employees, business partners, other stakeholders and provides opportunities to create value (Burt, 1992). In that regard, Adler and Kwon (2002) noted that social environment initiative facilitates various important organizational actions such as inter-unit and inter-firm learning, thus contributing to their success. Improvements in the social facets of CSR also build trust in contracting relationships with external stakeholders, thus enabling the firm to lower transaction costs (Hill, 1990).

Furthermore, Hitt *et al*. (2002) noted that multinational firms engaging in social related activities acquire a competitive advantage in the new global marketplace. In a sense more specific to the context of developing countries, ECSR can be understood to represent formal and informal ways to achieve sustainability. It is seen as businesses contribution toward improving governance, social, ethical, labour and environmental conditions of the developing countries in which they operate, while remaining sensitive to prevailing religious, historical and cultural contexts (Visser *et al*., 2007). Although, it has been ideally through notions of transparency and accountability that Milne and Gray (2007) argued that, such reporting has other effects intentional or unintentional such as obfuscating certain realities making some things visible while hiding others. In this study ECSR was operationalized as having three dimensions environmental reporting, environmental investment and social environment initiative.

2.2.1 Environmental Reporting

The environmental reporting (ER) or sometime known as ‘green reporting’ is one of the facets of voluntary reporting or disclosure of information about environmental performance based on auditing standards like Global Reporting Initiatives. Malarvizhi and Yadav (2012), a reference to environmental report means different things to different user groups. Some tend to think of stand-alone environmental reports while others focus on the environmental content in the annual report itself. Interestingly, Nikolaeva and Bicho (2010) explained that while global reporting initiatives (GRI) indicators initially focused on environmental performance only. This was then extended to include social performance, human rights and economic performance on customers, suppliers, employees, capital providers and the public sector. In this case

ER is referred to in different ways by different actors: environmental reporting, social reporting and corporate social reporting.

Labelled environmental reporting throughout this study can be defined as a tool through which increasing environmental accountability duties may be discharged, since it can alert a wide variety of stakeholders regarding corporate environmental consequences (Clarkson *et al*., 2011). Subsequently, this can appease the consciences of some environmentally concerned consumers (Lyon & Maxwell, 2008). One of the most visible consequences of this has been the inclusion of environmental, social, governance or sustainability information in corporate disclosure (Owen, 2008). The results being proper internal reporting systems, external reporting systems and measurement of initiatives related to social responsibility such as labour relations, discrimination, health and safety. In addition, environmental challenges such as biodiversity loss, climate change, land use, freshwater consumption and chemical pollution (Rockström *et al*., 2009) are disclosed. Extension of ER is also intimately concerned with honesty and transparency which is increasingly expected of the public both in corporate dealings and disclosure.

CSR reporting informs society about the companies' ethical accountability to its stakeholders (Hassan & Harahap, 2010) especially consumers. Studies investigating why companies disclose environmental information in their annual reports indicate several reasons. The main reasons for disclosures relate to demands by corporate stakeholders, environmental groups, regulations, improving corporate productivity and competitiveness (Suttipun & Stanton, 2012). CSR reporting can be a significant part in the financial reporting while it provides information to different stakeholders (Weygandt *et al*., 2011) which in essence provide information relating to whole

environmental concern to society. The system of providing information may vary from firm to firm, country to country. According to Clarkson *et al*. (2011) they argued that both the level and nature of environmental disclosure provided by a firm may not be indicative of its underlying environmental performance. Environmental reporting in this study was explained by the following three dimensions environmental protection measures, eco-labeling and corporate transparency.

Reporting on environmental protection measures covers degree of activities of proactive environmental management and environmental performance (Claver *et al*., 2007). It revolves around reporting firm activities causing direct and visible impact on the environment (Bowen, 2000) and their control. For instance, pollution prevention activities have been seen as proactive environmental management that lead to an improvement of environmental performance and firm performance (Zhu & Sarkis, 2004), energy and water usage (Wagner, 2005), reuse and recycling (Geyer & Jackson, 2004), employee eco-initiatives (Rothenberg, 2003) and reduce in number of legal penalties (Ngwakwe, 2009). The aim of environmental management system on protection measures is to have access to information, which is needed for decision making related to budget, investments and strategy, to measure and evaluate the activities that have been undertaken and to monitor the fulfillment of goals and targets (Epstein & Buhovac, 2010). Usually, the main target is ethical consumers (Adams & Raisborough, 2010).

In addition, Epstein (2008) established that every corporate reporting initiative should be linked to environmental CSR measures, to be able to assess the social and environmental impacts of the actions of the firm. Environmental performance management tools that provide quantitative data are important as the top-management

often is focused on measures and monetary data (Veleva, 2010). However, Epstein (2008) argued that quantitative and as well as subjective and qualitative measures might be necessary in cases where it is hard to quantify the information. Corporate reporting systems, programmes and actions hence have an important role in generating the information used for external reporting of social and environmental performance (Epstein, 2008). In order to improve organizational sustainability, it is necessary to better understand environmental performance indicators as drivers of both costs and revenues and the actions that they can be taken to create sustainability (Clarkson *et al*., 2011).

It is a way of communicating firm‘s social responsibility to the public indicating its attainment of environmental standards through market based mechanisms like eco-labelling certificates (Courville, 2011). This is disclosure of information in the form of certification, an organic label as an assurance signal and offering proof of objective quality because the product has been produced following environmentally friendly requirements. Reporting from consumer-oriented perspective, the label offers a cue that generates varied associations (Carpenter & Larceneux, 2008). The aim is to help consumers make evaluations of overall quality, assuming they understand and trust the label (Koos, 2011). Accordingly, Rashid (2009) identified that when consumers are aware of eco labels they react more positively towards knowledge of green marketing and the purchase of green products. Similarly, research by Kuhn (1999) adds value to this by identifying that the promotion of eco friendly product manufacturing definitely help improve company's market share due to the ability of the company to present sustainable marketing strategies.

Disclosure of labeling practices tend to be a preferred option to attain various objectives for example, nutrition labels serve public health objectives (Mannell et al., 2006) and environmental labels aim to achieve ecological goals (Koos, 2011). In the food sector, disclosure of official organic labels attempt to promote the development of organic farming and more sustainable consumption (Thøgersen, 2000). In support to Van Doorn and Verhoef (2011) argument that specific case of virtue products which are wholesome and nourishing, they supposed that consumers are likely to use the organic label to infer positively overall quality. There is a need to identify the impact eco-labeling reporting, have directly on the consumer environmental attitude in terms of decision making. Nonetheless, when consumers are made aware of what CSR is, it appears that CSR does lead to positive attitudes and stronger behavioral intentions towards buying products from a socially-responsible company (Pomering & Dolnicar, 2009; Sen et al., 2006).

Consumer awareness through reports of eco-labeling and its impact on consumers is intended to enable consumers to purchase an eco-friendly product. Research shows that conflicting views have been expressed (Rashid, 2009). As Carrigan and Attalla (2001) confirmed that the abundant product information is too overwhelming for consumers and it detracts them rather than enhances in making sustainable purchase decisions. Boiral (2007) reaffirmed by arguing that certification is often seen as a cumbersome, time and resource consuming system that cannot be justified in times of recession which cannot necessarily be justified for the improvements achieved in environmental performance. He reported that environmental procedures, central to the management system were far from being implemented except prior audits when non conformities were hurriedly reduced as a tidy up job.

In addition, Lee and Shin (2010) emphasized that the outcomes of the corporate environmental activities are not communicated well to consumers. Hence, Rahbar and Wahid's (2010) explanation hereof is that a high degree of awareness does not necessarily lead to ethical behaviour, due to the lack of substitutes and the higher cost of products with ethical dimensions such as green products. Expedited by the sustainability crisis and increased stakeholder activism, the demand for self revealing, passive, reliable and transparency business practices has gained momentum in the current ER debate.

Subsequently, Villiers and Staden (2010) argued that this demand is brought about by the belief that corporations should be accountable for their environmental impact. One aspect of this corporate answer to sustainability has been demand for stronger and better accountability and transparency of firms (Gray, 2010). The increased amount of business scandals, growing media coverage and the consequences of the global financial crisis induce increased information need (Güler & Crowther, 2009). This raised stakeholders' demand for corporate transparency and complete information coverage on corporate conduct (Kolk, 2008). Companies are able to tackle these demands by changing their reporting practice, offering transparency, accountability and compliance with certain disclosure obligations (Stiglbauer, 2010).

According to Rawlins (2008), transparent communication consists of four dimensions: participation, substantial information, accountability, and lack of secrecy. Participation is the act of engaging with publics through dialogue and feedback loops. Substantial information includes providing enough information for publics to make a judgment about an organization. Accountability is defined as acting responsibly and answering for decisions made by the organization. Lack of secrecy is disclosing

information and fostering an open atmosphere for communication. In employee-employer relationships, transparency leads to increased trust in the organization (Rawlins, 2008) which is an important measure in the organization-public relationship (Hon & Grunig, 1999). Owing to this open communication, they are further able to improve their public image, to gain trust, legitimacy and to differentiate from competitors (Esrock & Leichty, 1998). Thus, investing in companies with effective ECSR reporting can lead to economic and social returns (Dorfleitner & Utz, 2012).

Good transparency leads to better environmental reporting quality; however, Cho *et al*. (2010) established that self-serving biases are present in the language used in environmental disclosures, not just in their amount and thematic content only but in greenwashing. Greenwashing is defined by Lyon and Maxwell (2011) as selective disclosure of positive information about a company's environmental or social performance, without full disclosure of negative information on these dimensions so as to create an overly positive corporate image. Greenwashing is an issue that is often attributed to only positive disclosure of CSR information. Furthermore, the problem of greenwashing or green selling has become a concern to consumers, whereby the problem basically indicates that the so called green product has not been incorporated with authentic green qualities and sold with merely green labels with the premium prices (Lee, 2008). Greenwashing is problematic as it is essentially false advertising, and can be used to dupe consumers into supporting businesses on false pretences (TerraChoice, 2010).

There exists a gap on environmental reporting and what consumers say they are going to do and what they actually do at the point of purchase (Carrigan & Attalla, 2001). Earlier researches on consumer orientation tend to suffer from a social desirability

bias like when being asked, consumers state their willingness and motivation to take into consideration CSR, but when it comes to decision of real consumption only very few take account of CSR (Timothy *et al*., 2010). The inconsistency between reported intentions and actual behavior of the consumer calls for a better understanding of the limited role CSR plays in purchase decisions. This is to suggest that the purchasing intentions of ethical consumers are driven by personal values, moral norms, internal ethics and other similar factors (Vermeir & Verbeke, 2008). Thus, research on consumer perception of social responsibility in developing countries needs to be conducted (Jamali, 2007).

2.2.2 Environmental Investment

Environmental investment (EI) involves allocation of resources to products or projects that benefit the stakeholders either in the short run or in the long run. It is focused on the preservation of nature, life support and community in the pursuit of perceived opportunities to bring into existence future products, processes and services for gain. Where, gain is broadly construed to include economic and non-economic gains to individuals, the economy and society (Shepherd & Patzelt, 2011). Motivations for investment on such activities include corporate image building, regulatory pre-emption and production cost savings. While some of these investments arise from industry attempts to set environmental standards where none currently exist. Many investments seem to be aimed at reducing the costs of complying with existing regulations and the so called ‘win–win’ hypothesis of environmental investment (Lyon & Maxwell, 2004).

Scholars on EI have historically studied ways in which firms invest to reduce their impact on social and ecological systems through eco-efficiency initiatives like

recycling, reducing carbon and other emissions (Christmann, 2000). It is also through redesigning products and processes (Unruh & Ettenson, 2010). Similarly, trade network through social investment which is economically profitable for the local enterprises but also contribute to the improvement of the environmental situation (Portney, 2003). In addition, it include initiatives such as considering consumer-oriented CSR activities since activities related to consumers lifestyle and values are perceived favorably (Lee *et al*., 2011). Several researchers agree that CSR investments and attitudes will eventually help the company to perform better economically (Granek Hassanali, 2005). In this study environmental investment was well explained under the three dimensions eco-efficiency, eco-design and trade network.

Investments aimed at reducing the environmental impact are expected to trigger the introduction of sustainable methods and products, thus enabling the firm to overcome trade barriers imposed to non-sustainable producers (Cainelli *et al*., 2012). It is expected the productivity enhancement generated by green investment strategies to affect more the capability of firms to penetrate markets comprised of green consumers with stricter environmental regulations and standards. Furthermore, adopting environmental investment practices can directly reduce the cost of materials and energy use, capital assets by easing access to green or ethical mutual funds and labour inputs by enhancing loyalty and commitment (Ambec & Lanoie, 2008). However, in accordance with prior researches, it shows that investment on CSR is not at the top of many consumers' lists (Bray *et al*., 2011).

The eco-efficiency concept of investment emphasizes that corporations can use less of resources to achieve the efficiency in both economic and ecologic aspects at the same

time. This can be achieved by the following investment principles (Wagner, 2005): reduction of the material intensity of goods and services, reduction of the energy intensity of goods and services, elimination of toxic dispersion, enhancing materials recyclability, maximizing sustainable use of renewable resources, extension of product durability and an increase of the service intensity of goods and service. Eco-efficiency in recent years has made many organizations resort into organizational change for implementing policies of pollution abatement, fossil fuels use decrease and improvement of relations with stakeholders (Dinu, 2011).

Adopted definition in this study is that eco-efficiency is the delivery of competitively priced goods and services that satisfy consumers' needs and bring quality of life, while progressively investing in reducing ecological impacts and resource intensity, through the life-cycle of a product, to a level at least in line with the earth's estimated carrying capacity (van Berkel, 2007). In the same vein, it is either improved by reducing environmental impact whilst keeping the same economic value or by expanding economic value whilst remaining on a constant level of environmental impact. Such thought comes in line with (Quariguasi *et al*., 2009)'s definition, which defined the eco-efficiency as the ratio of total value added and damage function, aggregating the environmental pressure into a single damage score.

In other words, eco-efficiency emphasizes on achieving more value from investing low inputs of materials, energy and with reduced emissions (Hukkinen, 2001). It has also been argued that the eco-efficiency is aligned with investing on other preventive environmental practices such as cleaner production, pollution prevention and waste minimization (van Berkel, 2007). By doing so, the concentration will be on good environmental performance from changes in operational efficiency rather than by

adopting standards of pollution control at the end of pipe (Guenster *et al*., 2005). Perhaps, high strong linkage of company's core activities to ECSR fit is important to gain consumers' trust (Du *et al*, 2010). However, consumer stated ethical intentions rarely translate into actual ethical buying behaviour at the moment of truth (Auger & Devinney, 2007).

Focusing only on economic benefit of product development is no longer sufficient but investment on redesigning of social and environmental benefits of product development process should also be considered through eco-design. Various ways to achieve these benefits include amongst others, policy and principles for sustainable production (Veleva & Ellenbecker, 2001) and product life cycle assessments (Vinodh & Rathod, 2010). Eco-design is a design process incorporating drivers of environmental investments through various eco-design approaches to create sustainable solutions of products that satisfy human needs and desires (Ben Gal *et al*., 2008). This investment includes everything from the extraction of the raw materials, manufacturing, transport, use and through to the disposal at the end of the products life (Wolf *et al*., 2008).

Consumers are beginning to recognize not only the need for food and clean water, but also the need to sustain the social and environmental systems (Martin & Schouten, 2012). Studies have demonstrated that certain consumers develop favorable attitudes toward ethical invested products like fair traded products. These products contribute towards the benefits of the society and consumers are willing to pay premium prices due to their inclination to become responsible for their consumption of goods (d'Astous & Legendre, 2009). Despite the recognition of the potential benefits of eco-design investment, its application has failed to reach large numbers of companies and

sectors worldwide over the last decades (Boks *et al*., 2006). This was mainly due to difficulties in eco-design investment implementation and management.

Interestingly, there seems to exist a cognitive dissonance as only a few ‘green’ products have been successful so far (Reitman, 1992). Contemporary consumers are becoming wiser in their purchase decisions in the sense that they are constantly seeking for alternatives that provide them with maximum customer delivered value (Gotlieb *et al*., 1994).Trade network is the process of organization investing on fair trade linkage at community level that is economically profitable for the local enterprises but also contributes to the improvement of the environmental situation. Investment is intended to educate locals about businesses and to help them identify changes in production processes that could reduce waste, resource consumption and in turn increase profitability (Portney, 2003). Profitability echoed by Lyon and Maxwell (2008) that environmentally aware consumers are often willing to pay more for products provided by environmentally conscious organizations.

Trade network is often described in the literature as a win-win-model, using integrated environmental technologies to strengthen economic efficiency and to improve the local environment at the same time (Balcazar, 2010). Investment on trade network activities provides the current viability of a business and to legitimize economic future usefulness of its products, especially giving the maximum possible reproduction of existing environmental conditions a priori in that area.

Investment on trade network activities ultimately implies going beyond strategic cooperation and achieving substantive cooperation among social groups which naturally benefits the most those that have been the least favored (García Barrios, 2008). Furthermore, engagement with indigenous communities also reflects an

organization's attitude with respect to how it intends to access or preserve natural resources and specific raw materials (Sammartino *et al*., 2003). Such perspectives are reported to have management relevance in terms of the sustainable use of renewable resources and environmental sustainability initiatives (Freeman *et al*., 1991). Investment on environmental protection minimizes the environmental impact of natural resource exploitation and land rehabilitated to allow successive use (Sànchez, 1998). This is also social cohesion investment through reducing the social and cultural disruption to communities, maintenance of stakeholder dialogue and transparency of operations.

Evidently, trade network investment correlates to fair-trade goals where a more sustainable production does also correlate with the corporation's profit. It is one of the more dynamic examples of the initiatives, campaigns and movements that are constituent elements of what Peter Evans has described as 'counter hegemonic networks' (Evans, 2000). The most direct benefit for the small-scale farmer from fair trade is the higher price, the price guarantee offered and the environmental preservation (Bacon, 2004). Producers and their representatives observed that participation in fair trade provided training in modern farming methods, such as organic production which increased access to food security through organic farming.

Trade network is more of economic development where investment of generated revenues is done to ensure future development and long-term livelihood of the communities (Epps, 1996). Moreover, in their efforts to embrace ECSR, firms must identify the interests, concerns and objectives of various stakeholders. Including national, regional government, local authorities, indigenous people, local communities, employees, competitors and address their often-varying needs (Guerra,

2002). However, when addressing the overall gap between ethically minded consumers, ethical attitudes and their often none ethical buying behavior. Ethical consumerism researchers have generally failed to consider that intentions are not a reliable proxy for actual behaviour with few exceptions (Shaw *et al*., 2007). In addition, Valor (2008) gave evidence that even if consumers intend to buy responsibly, there is a gap between this intention and actual buying behavior.

2.2.3 Social Environment Initiative

Social environment initiative results in social progress which is the responsibility of the organization to meet the basic human needs of its stakeholders. In the fields of corporate social contribution namely: local economic development, education and social welfare, local community contribution under culture activities and local community involvement affect consumers' purchase intention (Lee & Shin, 2010). Social environment responsibility emerges from relationships between an organization and its employees, business partners and other stakeholders and provides opportunities to create value (Burt, 1992). In a similar vein, the 'socialcentrism' literature highlights the systemic embeddedness of business in society and social systems at multiple levels (Aguilera *et al*., 2007). The core challenge, this school of thought would argue is not just to recognize individual links between firms and specific stakeholder groups (Key, 1999) but rather to embrace the complex and systemic interactions between business and its social environment initiative (Walsh, *et al*., 2003).

It involves establishing the building blocks that allow stakeholders to enhance and sustain the quality of their lives and create the conditions for all individuals to reach their full potential inclusive (Gladwin, *et al*., 1995). It can be described as corporate

social responsibility beyond pure profit. This involves respecting fundamental human and labour rights as ethical principle of growing business relevance. Health and safety at work place are thereby seen as fundamental rights and vital elements of the ‘decent work’ agenda (ILO, 2007). In other words, employees are the most important stakeholder group when their welfare is guaranteed and good working conditions are maintained. These form the necessary considerations for highly qualified employees in choosing their work place.

Markets’ opinions about the companies are depending on companies’ attitude toward its society. Concurrently, companies are under increasing pressure to behave in socially responsible ways (Mohr *et al*., 2001). These developments trigger companies to think beyond profit maximization as their only business goal but also imply new business opportunities. It forces them to reflect on their core values, business principles and what they regard as doing the right thing, complementary to the rational business planning and implementing safety management systems, which is focused on doing the right things (Zwetsloot, 2003) to all stakeholders. The right things win support from stakeholders through customer loyalty, investment attraction, cooperation with partners, legitimacy from the community and favourable media coverage (Branco & Rodrigues, 2006).

Social environmental drivers in developing countries undeniably are autochthon cultural traditions, philanthropy, business ethics and community embeddedness (Visser, 2008). It’s not about charity; it’s about the fact that if the organization does the right things in the community, the community will do the right things for the organization. Further, Hitt *et al*. (2002) noted that multinational firms engaging in social related activities acquire a competitive advantage in the new global

marketplace. As Friedman (1970) strongly stated earlier that the investment will in the long run provide resources and amenities for the livelihoods of the people in the community. It involves community orientation which is development of the community and working with local people who manage their own community's development (Littrell & Hobbs, 1989). The known dimensions of social environment initiative include: health and safety, employee development and community cooperation.

Health and safety (HS) policies and programmes aimed at protecting employees and other persons affected by what the firm produces and do against the hazards arising from their employment or their links with the firm. Health programmes usually deal with the prevention of ill-health arising from working conditions while safety programmes are concerned with the prevention of accidents and minimizing the resulting loss and damage to persons and property (Armstrong, 2006). HS is a component of the social dimension within the construct of environmental CSR. There is no doubt that concern for the well-being of employees should constitute one of the main aspects in any firm's CSR (Montero *et al*., 2009). The social issues include the benefits offered in terms of training related to safety, health, environment, donations, education scheme and medical benefits (Chamhuri & Wan Noramelia, 2004).

Organizations are using ECSR as a strategic tool which encompasses policy level initiatives in the area of health and safety management and the promotion of workers' health are relevant not only to policies and actions emerging from legislation. It is also to those that are initiated through increased stakeholder involvement within frameworks such as collective bargaining agreements and enterprise responsibility (Leka *et al*., 2011). It is therefore necessary not only to rely on regulation but also

implement supplementary strategies to protect and promote workers' health. To address these issues, a number of policies and approaches have been developed and implemented by various stakeholders at the international, national, regional/sectoral and enterprise level to promote HS.

At firm level it is also generally accepted by all stakeholders that employers share the responsibility of creating healthy workplaces, hygiene, safety and managing the health of their workers. Responsible firms should have a system of occupational health and safety to prevent occupational accidents and the spread of diseases. In addition, a responsible firm should also integrate into their management systems to promote healthy lifestyles and training to prevent off-site accidents. Therefore, the firm is able to not only prevent accidents, but to also take a proactive approach to promote the physical and mental well-being of people. Clearly, many authors noted that there can be synergies between CSR and improvement of occupational safety and health and working conditions in general (Montero *et al*., 2009).

It is estimated that over 2.3 million people die from work-related accidents or diseases each year, of which over 2 million are caused by various types of occupational disease (ILO, 2011). Occupational disease has become by far the most prevalent danger faced today by people at their work (WHO, 2006). In addition, recent research has shown that more than an estimated 317 million workers were injured in accidents at work that resulted in absences from work of four days or more (ILO, 2011).Thus, Consumers' negative attitudes are mostly generated by sweatshop practices in developing countries. Such negative attitudes were revealed to have impacts on consumers' desire to avoid sweatshop products (Shaw *et al*., 2007).

Indeed, the simple goal of improving the life of consumers while making a positive impact on the environment has been elusive to scholars and managers alike (Polonsky, 2011). Employees are considered as highly salient primary stakeholders to whom the firm owes a perfect duty which means that they have high power and legitimacy to influence the firm. For example, they tend to support progressive labor relations policies, safety, workplace amenities and financial security, such as childcare centre. Workers are searching for signals that managers are responding to courses they support. According to Tuzzolino and Armandi (1981), satisfying employees' expectations will lead to improved job attitudes and increased productivity which is good for the company but it has to be pointed out that this effect is mediated through employees' well-being.

In fact, the development of ECSR has considerable influences on many functions of human resources management (HRM). HRM's functions are accomplished by various CSR-related tasks that range from maintaining a company's ethical principles when interacting with major stakeholders to fostering employment practices that enable employees to become socially involved by volunteering (Lockwood, 2004). From the standpoint of corporate social responsibility, proper management of human resources is linked primarily to the alignment of employees. In line with values of the organization which include mission and vision as well as maximizing their commitment to achieving the objectives of the firm.

In addition, Gladwin *et al*. (1995) described sustainable development as a process of achieving human development in an inclusive, connected, equitable, prudent and secure manner. Human development involves learning which according to Senge (2006), learning persons as well as seeking personal visions are the spiritual

foundation of the learning organization. Because of the complexity and range of sustainability issues, training and development must go beyond awareness training for many employees (Porritt, 2007). However, Doane (2005) argued that human resource CSR is not efficient because the companies imitate the CSR activities of other companies instead of finding their own pattern of CSR affecting consumers' purchase decisions. Therefore, the CSR activities towards the consumers are of secondary importance and are regarded to be rather public relation activities (Dawkins Lewis, 2003).

Community cooperation (CC) stands for partnership with community through contributions of money, time, goods, expertise, voluntarily giving to the public good and serving primarily that public good (Schuyt, 2003) beyond pure profit. It refers to initiatives undertaken by the community in partnership with external organizations or corporation to empower individuals and groups of people, by providing them with donations they need to effect change in their own communities. These donations are often concentrated around making use of local resources and building political power through the formation of large social groups working for a common agenda beyond pure profit. In addition, initiatives such as employing and training local people especially those who may be otherwise disenfranchised, addressing health issues, facilitating reforestation and paying living wages are factored into their business dealings (Miller & Dawans, 2009). It implies that organizations located within communities or spaces of interest are designed to meet the needs of those communities (Thake, 2004) as they give charter to these organizations to exist there.

This is commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to

improve their quality of life (Cramer, 2003). The above explanation implies that corporations go beyond the narrow confines of financial measures and self interest. To include such important social issues as increasing literacy, abolishing sweatshops, practicing environmental conservation, employing equality and diversity in hiring practices along with improving the communities within which they operate (Johnson, 2003). The main focus of ECSR on sustainability programs is the human wellbeing and seeking to improve the quality of life of the people from the community as well as the environment integration and its preservation. Too often, attaining CSR is understood from the perspective of business generosity to community projects and charitable donations but this fails to capture the most valuable contributions that a company has to make (Reyes, 2002).

Local community contributions towards cultural activities and local community involvement affect consumers' purchase intention while corporate environmental protection and contribution have no effect on it (Lee & Shin, 2010). In addition, Friedman (1970) asserted that there is one and only one social responsibility of business to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game. This argument is that because social action will have a price for the firm it also entails a competitive disadvantage (Smith, 2002). Therefore, advocates of this argument deem that social actions should not be initiated by businesses as consumers remain hesitant to pay more for green products (Sharma & Iyer, 2012). Thus, practitioners remain fixated on targeting these consumers at the expense of other stakeholders (Greenley *et al*., 2005).

2.3 Consumer Orientation

In the past decades, consumers have displayed an increased demand for socially and environmentally friendly products (Zander & Hamm, 2010). Admittedly, this was evident in Kenya before the recent economic downturn, the burgeoning green market seemed limitless with an occasional blind eye to the size of consumers' wallets. Manufacturers churned out a slew of eco-friendly, green, environmentally responsible products at premium prices and consumers ate them up, put them on and drove them around. However, it is important that the manufacturers of these goods understand the factors that play a role when a consumer is considering an organic product in terms of individuals' characteristics or consumer orientation (CO).

Accordingly, CO has been the most basic and engrossing concept in the literature of consumer behavior (Pons *et al*., 2006. It has been found to be a set of traits existing in individuals that result in an outcome behavior (McGuire, 1976). Although the general definition of CO does not exist, however, Kassarjian (1971) defined it as the reaction or response of individuals to either the stimuli around them or the existing environmental situations. Furthermore, Pons *et al*. (2006) defined CO as the inclination of individuals to embrace an expected behavior. Another view from Kantanen (1993) CO refers to an individual's specific inclination toward the adoption of a predictable behavior during a given consumption act.

Although, the above definitions are valid, the taxonomy provided by Parsons and Shills (1967) on consumer orientation was applied specifically in this study which includes social and personal orientation. In support Tsai (2005) reaffirmed that CO is mainly driven by two orientations: a social or a personal one. The social orientation is driven by extrinsic inspirations, while the personal orientation is driven by intrinsic

inspirations. Each aspiration, either extrinsic or intrinsic, represents a set of values that each consumer follows during buying decision-making process. It is evident that CO plays an important role in formulation of individuals' behavior (Pons *et al*., 2006) which is a representative of individuals' motivation and hence can be helpful in predicting consumption behavior of green products. Since consumption is perhaps the most important economic behavior of human beings to it goes the lion's share of a consumer's annual expenditure, as green consumers try to indicate their concern for the environment by purchasing only green products (Rahbar & Wahid, 2010).

2.3.1 Social Orientation

Social orientation as the name indicates mean continuity to serve the first narrow perspective that consumers buy goods just to impress others (O'Cass & Frost, 2002).These consumers follow extrinsic aspirations (Kasser & Ryan, 1996) as these entail the concern of how they will be perceived and the desire of gaining the admiration and praise of relative others (Truong, 2010). Hence, consumers with social orientation are frequently influenced by several sources from their own group of reference (Whittler & Spira, 2002), to those who they aspire to be like (Escalas & Bettman, 2005) and even by those with whom they do not want to be associated with (White & Dahl, 2007).Consumers pursuing these aspirations can be driven by five different values: social conformity, culture, status seeking, fashion consciousness and price-quality schema.

Social conformity can be defined as the change in product evaluations, attitude, purchase intentions or purchase behavior as a result of exposure to the evaluations, intentions or purchase behaviors of referent others (Lascu & Zinkhan, 1999). Social

conformity can better explain social orientation when consumers constantly look for positive reactions from their reference group and adjust themselves to the demands of others (Torelli, 2006), expressed in the purchase of green products. Additionally, social conformity can refer to the degree of influence of social or reference group on individuals (Klein, 1997) and has been referred to as an innate drive to look externally to get social approval (Klein, 1997). Research on social comparison has consistently demonstrated that consumers compare themselves with others based on their skills, talent, expertise and most obviously the products that they use (Moreau & Herd, 2010).

The outcome is that these consumers choose to use the brands that have a coherent image with the group they are in or with the group they aspire to be in, than the brands that do not have this coherent image, since they seek to create a psychological association with those groups (Escalas & Betman, 2005). They also prefer to choose louder branding signs as these are easier to be recognized by others (Han *et al*., 2010). According to Lascu *et al*. (1995), conformity plays an important role in shaping individuals' decisions toward product choices based on the influence of referent others. They further explained that social influence can be either normative-based when individuals conform to the expectations of referent group or information-based when individuals accept information from referent group as evidence about the reality. Similarly, Lascu and Zinkhan (1999) argued that individuals may vary in terms of the amount of conformity, with some individuals showing complete conformity and some showing independence of the referent group.

In essence culture being an item of social orientation can be defined as the norms, beliefs and rituals that are unique to each person. These different factors influence

how we live, communicate and think about certain things. Culture can also dictate how a person acts in a certain situation. In terms of self-image and the satisfaction of underlying tensions, most people seek to satisfy their desires in a way that fits societal norms. Furthermore, Maignan (2001) suggested through research that cultural aspects could change the way people perceive CSR and purchase of green products. Culture is said to be one of the most important variables which influence ethical decision making of a consumer (Rawwas *et al*., 2005).

Status-seeking individuals seek status to obtain a position or rank given by others in the society as a measure of materialistic social orientation. It can be acknowledged by these consumers desire to use possessions to signal their status (Wiedmann *et al*., 2009). It is defined as an expression of evaluative judgment that conveys high or low prestige, regard and esteem (Donnenwerth & Foal, 1974). Status can be considered as a form of self-presentation with the desire to gain status or social prestige has been found to have a great influence in predicting the behavior of individuals (Goldsmith *et al*., 1996). Similarly, Veblen's (1922) argument that consumers' desire to gain status is enhanced by conspicuous products or 'green products,' perhaps consumers may not always spend higher prices for goods in order to achieve status; they may also purchase a larger quantity of conspicuous goods at lower prices in order to gain esteem.

Fashion consciousness as an item of consumer orientation was defined by Nam *et al*. (2007) as a person's degree of involvement with the styles of fashion products. Researchers have further referred to fashion conscious consumers as those individuals who are characterized by a deeper interest in fashion brands and products as well as in their physical appearance (Gutman & Mills, 1982). In the same note Workman (2000)

illustrated that consumers desire to be fashion conscious as they seek for variety and personal creativity. Additionally, Goldsmith *et al*. (1991) asserted that consumers' purchase intentions are motivated by their inclination toward fashion products that express themselves. Consumers use categories of products where great expenditures can be associated with higher incomes as fashion (Charles *et al*., 2007). In the past, some researchers illustrated strong association of consumers with fashion products (Goldsmith *et al*., 1991; Nam *et al*., 2007).

Consumers who are willing to pay premium prices believe in higher price-higher quality and lower price-lower quality. As Öberseder *et al*. (2011) discovered that price was a very important criterion of social orientation where the financial situation of the consumer is of huge relevance during purchasing decisions. The price of the ethical goods is clearly paramount where under general conditions, the probability of purchasing a product decreases as its price increases (Auger *et al*., 2008). More often than not, these organizations often attribute the high price to the high cost of production in which many consumers feel unjust. Consequently, there are consumers who are not able to buy these products due to the increase in price. In support, Bhattacharya and Sen (2004) noted that consumers' reluctance to compromise on attributes like price suggests that their positive attitudes may not translate into greater purchase behavior of green products.

2.3.2 Personal Orientation

Consumers with personal orientation are driven by intrinsic inspirations when buying goods. Subsequently, they do not look to impress others as they buy these goods with a value-expressive function and not with a social-adaptive one (Wilcox *et al*., 2009), as this is a behaviour driven by autonomous reasons and not due to the influence of

others. In consequence, consumers look for personal pleasure and emotion that enables them to feel satisfaction and personal meaning from attainment (Truong 2010). These drivers of personal oriented consumption are so individual that (Geerts & Veg-Sala, 2011) have defined this type of behaviour as emotional luxury. Therefore, Silverstein and Fiske (2005) argued that personal oriented consumers are also motivated by self-directed pleasure, buying goods to treat themselves, with little or no desire to signal status or wealth (Truong, 2010). These consumers pursue intrinsic aspirations driven by awareness, ethical value, attitude, income and integrity.

There has been an extensive change in how individuals involve themselves in activities and consumption of products due to reasons such as increased awareness and concern about social and environmental issues (Hoe *et al*., 2003). Research in the area of personal orientation of ethical and sustainable consumption has focused on understanding the various consumer groups, the intention behaviour gap, the myth of the ethical consumer, the role of information and consumer awareness (Bray *et al*., 2011). Some campaigns play obvious role in enhancing awareness of consumers which make consumers be willing to spend more money for green products (Garcı´a Gallego & Georgantzı´s, 2011).

Moreover, Rizkallah (2012) claimed that knowledgeable consumers have a higher intention to use CSR as an important aspect in their buying decisions than unknowledgeable consumers. Awareness, in turn, is positively correlated to consumers being exposed to CSR communication (Wigley, 2007). According to Pomering and Dolnicar (2009), CSR will affect consumer’s purchasing behaviour if the consumer is aware of the company’s work with CSR. Previous research brings attention to the fact that information is necessary for consumers when considering

ethical features of a product (Bray *et al.*, 2011). In support, Panni (2006) found that the more the consumers are aware regarding the societal and environmental issues the more they are involved in pro-social and pro-environmental behavior.

Previous studies indicated that raising consumers' awareness leads to positive attitudes and stronger behavioral intentions toward buying from socially responsible companies (Sen *et al*., 2006). However, several studies indicated that consumer awareness about companies' socially responsible behavior is low (Carrigan & Attalla, 2001; Sen *et al*., 2006). From company's perspective, it leads to difficulties to receive benefits from its CSR activities (Du *et al*., 2010). The low awareness of CSR can cause problems for companies to generate revenue based on its CSR activities (Du *et al*., 2010).

Furthermore, Carrigan and Attalla (2001) described four types of consumers based on their ethical awareness and ethical purchase intention. 'Caring and ethical' consumers are boycotting the unethical companies and supporting the ethical ones. They may be more focused on certain ethical issues like environment and child labor. 'Confused and uncertain' consumers would like to make discriminating purchase decisions but they are uncertain about which companies are ethical. Such consumers would like to get some more information about companies' ethical behavior. 'Cynical and disinterested' consumers do not believe that companies' are truly ethical and most likely they would not change their purchase behavior even if they were convinced as they value price, quality and brand more.

In addition, for 'Oblivious consumers' companies' ethical behavior is not a factor when buying as they are lacking knowledge about CSR. Mohr *et al*. (2001) divided consumers into four groups: pre contemplators, contemplators, action group and

maintainers. Each of these groups contains two subgroups. Pre contemplators do not make their purchase decisions based on CSR. The first subgroup does not believe that companies should engage in sustainable behavior. The second subgroup believes that companies' should behave sustainably, but they do not see their power to affect companies through their purchase decisions.

Contemplators put some more thought in CSR but as for the first subgroup they do not believe that companies can improve anything in the society and as for the second subgroup, they do not think that they buy enough for their sustainable consumption to have any effect on the society. In the action group, people have stronger beliefs about CSR, but it is still not the main factor when buying. The first subgroup feels that there is not enough CSR-related information and the second subgroup is highly cynical about CSR related information. Maintainers make their purchase decisions based on CSR. The first subgroup is mainly driven by environmental causes and the second subgroup see sustainable consumption as the main mean to gain control over businesses.

Ethical values reflect consumer judgment from personal orientation and hence affect intentions toward consumption of green products. As Muncy and Vitell (1992) defined consumer ethics as moral principles and standards that guide behavior of individuals or groups as they obtain, use and dispose of goods and services. Ethics are the rules of personal behavior accepted by society while values are attitudes and beliefs about things we think are important in life. Values can be defined as relatively stable convictions about what is important (Rossouw & Van Vuuren, 2010). A value is a belief and a priority that is meaningful to consumer. They are enduring beliefs that a given behavior or outcome is desirable or good. As such, values serve as standards

that guide our behavior across situations and over time. Values are often part of our personality system and determine specific attitudes towards green products.

It has always been believed by consumer behaviorists that an individual's actions can be predicted by their attitudes. Consumer attitude is a consumer's enduring favourable or unfavourable cognitive evaluations, emotional feelings and action tendencies toward some object or idea. Meanwhile, Mostafa (2009) found that both attitude and environmental concern have significant positive effect on the consumers' intention to buy green products. Therefore, consumers are becoming more sensitive in their environmental attitudes, preferences and purchases (Sarigollu, 2009) of green products. Researchers have suggested that consumers generally have positive attitudes toward social responsibility but only the consumers who have strong identity as ethical consumers actually purchase socially responsible products (Hiller Connell, 2011). Most researchers argue that there is a gap between the attitude and behaviour and also between the values and actions (Young *et al*., 2010).

Income is the most important factor that determines the level of household consumption and consumer households with higher income also involve themselves in buying products (Eisend & Guler, 2006). This seems to make great sense since middle and middle-high classes have nowadays more disposable income to spend on this type of products, as these aspire to a lifestyle similar to the wealthier ones (Tsai, 2010). In addition, Hurst and Roussanov (2007) argued that these consumers use categories of products where great expenditures can be associated with higher incomes as fashion. Household income may be defined to cover: income from employment both paid and self-employment, property income, income from the production of household services for own consumption, current transfers received but exclude windfall gains and other

such irregular and typically one-time receipts annually . However, both the probability to consume organic food and the level of organic food consumption are found to increase with income in some studies (Zhang *et al*., 2008).

An individual who has a high level of integrity often seeks out equilibrium with his activities to maintain positive self-esteem (Ferguson, 2009). Integrity is commonly understood as an adherence to a set of sound principles and has been defined by Ferguson (2009) as one's self-defined ability to maintain authenticity and moral autonomy while preserving one's sense of membership and loyalty to the team or organization. With this view, de Matos *et al*. (2007) mentioned that consumers' respect for lawfulness reflects their consciousness to take right or wrong decisions. Based on the definition of integrity, it can be said that individuals show high level of integrity towards consumer products that reflect honesty and responsibility towards the society.

However, ethical consumers' orientation does not deny consumption but rather choose goods that reflect their moral, ethical and social concerns (Szmigin & Carrigan, 2006). Recent studies claim that, rather than conceiving ethical consumers as a niche, there are various degrees of complexity among consumers and even within the ethical consumerism market consumers display different traits and motives for consuming (Shaw *et al*., 2007). The decisions of these consumers may be influenced by their environment as most consumers behave and make choices as members of households, families, social networks and communities (Barnett, 2007; Szmigin *et al.*, 2009). Conscious consumers therefore, utilize their inherent ability to change, adapt or react to decision making in the environment as they accommodate other demanding factors in their lives such as their family needs, desires and concerns (Szmigi *et al*., 2009).

Interestingly, there seems to exist a cognitive dissonance as only a few ‘green’ products have been successful so far (Reitman, 1992). Several studies (Carrington *et al*., 2010), concluded that consumer purchase intentions do not translate to their actual purchase behaviour suggesting that consumers should be studied in real life settings. Consumer orientation introduced by researcher as a moderator to interact with the independent variable of interest ECSR so that the independent variables association with the outcome of dependent variable is stronger or weaker at different levels of the moderator variable. In other words, the association of the independent variable with the outcome variable depends on the value or level of the moderator variable (Cohen & Cohen, 1983).

2.4 Control Variables

Control variables are variables that affect the independent variables of interest and dependent variable but are not part of the relationship studied. In relation to this study Margolis *et al*. (2007) discussed the most common firm size and industry sector. Evidences from prior studies have concluded that firm size has an influence on the CSR practices (Ntim & Soobaroyen, 2013) but on the contrary, Cornett *et al*. (2007) failed to find such a link. The need to control for industry sector was also noted in a recent study by Sweeney and Coughlan (2008) and a positive effect in one industry sector may be balanced by a negative effect in another (Elsayed & Paton, 2005).

Positive effect of firm age on the level of engagement in CSR activities was observed in several studies (Godos-Díez, 2011). However, Parsa and Kouhy (2008) found that firm age does not have significant impact on social responsibility disclosure. Concerning ownership, Oh *et al*. (2011) found support for a relationship between type of ownership and a firm’s engagement in socially responsible activities. The study of

Barnea and Rubin (2010) presented that there is negative relationship between the decision to invest in CSR and type of ownership. In summary Wiklund (1999) concluded that there are no significant effects of firm age, size and industry sector on sustainability performance.

2.5 Theoretical Framework

Covers stakeholder theory, new collective theory of consumer behavior and sustaincentrism theory used in the study.

2.5.1 Stakeholder Theory

The stakeholder theory was introduced by Freeman (1984). The stakeholder theory represents an approach to strengthen the understanding of the link between social and corporate performance which affect sustainability by recognizing the implicit and explicit contracts that corporations have with multiple stakeholders (Freeman, 1984; Ruf *et al*., 2001). The aim of the stakeholder theory is to understand the structure and dimension of a corporation's relationships to parties within the society so as to reveal to whom firms are responsible and how and why they should manage these relationships (Ruf *et al*., 2001) in terms of sustainability. Based on stakeholder theory, a socially responsible firm requires simultaneous attention to the legitimate interests of all appropriate stakeholders and has to balance such a multiplicity of interests and not only the interests of the firm's stockholders.

Stakeholder theory as a genre of management theory in recent years aid managers in deciding how to allocate their limited time, energy and other scarce resources to different stakeholder groups (Philips, 2004). This theory maintains that corporations should consider the effects of their actions upon the customers, suppliers, general public, employees, shareholders and others who have a stake or interest in the

corporation (Lee, 2008) who are primary and secondary stakeholder and they contribute to sustainability of producer firms.

Main stakeholder groups include shareholders, employees, customers, the local community and the environment (Lepoutre & Heene, 2006). Although many companies advocate CSR in theory, they would not in practice increase stakeholder welfare at the expense of shareholder wealth (Karnani, 2010). This theory embodies the need to balance the claims of shareholders with these of other stakeholders (Ruf *et al*., 2001). Through this balancing act, the organization can attract and maintain the support of their stakeholders (Reynolds *et al*., 2006) which affect their sustainability. Building on stakeholder theory, it has become clear that it is ‘value creation’ to all stakeholders and ‘value creation’ is needed if measurement systems are to focus on the right issue of sustainability of producer firms (Hart & Milstein, 2003).

2.5.2 New Collective Theory of Consumer Behavior

New collective theory came as a result of merging Theory of Planned Behavior and the Value-Belief-Norm theory, which create a foundation for a strong theory when considering behavior concerning sustainable consumption and especially the purchase of organic food (Ajzen, 1991; Stern, 2000) which affects sustainability of producer firms. When studying the vast amount of material on consumer behavior with regard to sustainability in general as well as studies on behavior regarding organic food. It is clear that there are two theories used much more frequently than others linked to the new collective theory of consumer behavior, namely the Theory of Planned Behavior (López- Mosquera & Sánchez, 2012) and the Value-Belief-Norm theory (Stern 2000, López -Mosquera & Sánchez, 2012). The reasons for the inclusion of these theories

are their distinctions as respectively rational and moral based approaches to consumer behaviour.

Theory of Planned Behavior

The Theory of Planned Behavior (Ajzen, 1991), was developed as an extension to the Theory of Reasoned Action (Fishbein & Ajzen, 1975). Theory of Planned Behavior consists of three variables. Attitude towards the behavior is the first variable and it describes how the consumer views the behavior in question when buying organic products. The second variable is subjective norms and it considers factors in the surroundings of the consumer, such as the viewpoint of friends and family in relation to organic products. Finally there is the perceived behavioral control, which illustrates ease of completion of the behavior that the consumer believes to have. The relative weight of factors within these variables is determined by the believed outcome's subjective value in direct correlation with the perceived probability of outcome of purchase behavior.

Value-Belief-Norm Theory

The Value-Belief-Norm theory (Stern, 2000) on the other hand, makes extensive use of altruistic, or by extension, moral values considerations in order to explain consumer behavior. Value-belief-Norm theory was introduced in order to develop a conceptual framework to predict individual conservationist action (Stern, 2000). The value belief theory links the value, norm-activation and new ecological paradigm through a causal chain of five variables of leading behavior; personal values (especially altruistic values), new ecological paradigm, awareness of adverse consequences, ascription of responsibility to self and personal norms for pro environmental action. New ecological paradigm, adverse consequences and ascription of responsibility are beliefs about the general condition of the bio-physical environment sustainability.

Personal core values are defined as biospheric (concern for the planet), altruistic (concern for the wellbeing of others) and egoistic (concern for one self). New ecological paradigm describes how the consumer views the world ecologically, in other words what state and situation the environment is in terms of sustainability. Adverse consequences describe the identification that the behavior influences objects that the consumer values, while ascription of responsibility is the perception of the individual's ability to reduce the identified threat posed by the behavior. Finally one identifies the personal norms with regard to the sense of personal obligation to undertake pro environmental behavior. These considerations may lead the consumer to take upon themselves several distinctive forms of pro environmental behavior which affect sustainability of producer firms.

2.5.3 Sustaincentrism

Bansal and Gao (2006) emphasized the opportunity that CS scholars have to push new theoretical and frontiers based on insights that are unique to the natural environment. This led to 'sustaincentrism' theory which was coined by Gladwin *et al*. (1995) and Seventeen years later, validated by Valente (2012) empirically analyzing the factors that may explain its adoption. Where, Sustaincentrism started from the position that business is embedded within social and natural systems and is a major contributor to social and environmental problems. It is therefore responsible not only to recognize these problems, but to make fundamental, systemic changes required to mitigate them (Bansal & Roth, 2000) to ensure economic growth, environmental quality and social responsiveness.

Furthermore, Gladwin *et al*. (1995) explained the term sustaincentrism theory as the process of achieving human development in an inclusive, connected, equitable,

prudent and secure manner to enhance sustainability. Sustainability can be achieved through inclusiveness (environmental and human systems, near and far, present and future), connectivity (world's problems interconnected and interdependent), equity (fair distribution of resources and property rights), prudence (duties of care and prevention) and security (safety from chronic threats).

2.6 Conceptual Framework

As emphasized from the extant literature, producer firms have been concern about their sustainability. To establish the reasons for firms' sustainability it was important to come up with determinants of corporate sustainability, in this case establishing environmental corporate social responsibilities of these firms. As shown in Figure 2.1, environmental corporate social responsibility was operationalized as having three dimensions of environmental reporting, environmental investment and social environment initiative. The different effects of these dimensions before and after being moderated as hypothesized would explain sustainability of these firms.

Consumer orientation measured by social orientation and personal orientation was considered as moderator because of the potential effect on the relationship between environmental corporate social responsibility and corporate sustainability of producer firms. The relationship was guarded against interference of external factors to avoid possibility of variance or bias in the model. To control for the possibility of variance: firm size, firm age, type of ownership and industry sector were controlled. In this study therefore the four control variables were deemed particular relevant as they influence sustainability of producer firms.

Evidently, Margolis *et al*. (2007) indicated the most common controlled variables are: firm size and industry. On firm size, bigger firms may enjoy greater economies of

scale, compared with smaller firms. They may also benefit from improved capacity for accessing resources. Concerning age, young firms tend to have lower sales and therefore low profits (Watson, 2002) while older firms tend to be larger in terms of sales turnover , number of employees and capital assets (Rosa *et al*., 1996). On type of ownership, Oh *et al*. (2011) found support for a relationship between ownership structure and a firm's engagement in socially responsible activities and the need to control for industry was also noted in a recent study by Sweeney and Coughlan (2008).

The conceptual frame work was supported by stakeholder theory, new collective theory and Sustaincentrism theory. Stakeholder theory maintains that corporations should consider the effects of their actions upon the customers, suppliers, general public, employees, shareholders and others who have a stake or interest in the corporation (Lee, 2008). New collective theory is explained by two theories, namely the Theory of Planned Behavior (López- Mosquera & Sánchez, 2012) and the Value-Belief-Norm theory (Stern 2000; López -Mosquera & Sánchez, 2012). The reason for the inclusion of these theories was their distinctions as respectively rational and moral based approaches. On sustainability, Gladwin *et al*. (1995) introduced sustaincentrism theory which explains from the position that business is embedded within social and natural systems and is a major contributor to social and environmental problems. It is therefore responsible not only to recognize these problems, but to make fundamental, systemic changes required to mitigate them (Bansal & Roth, 2000).

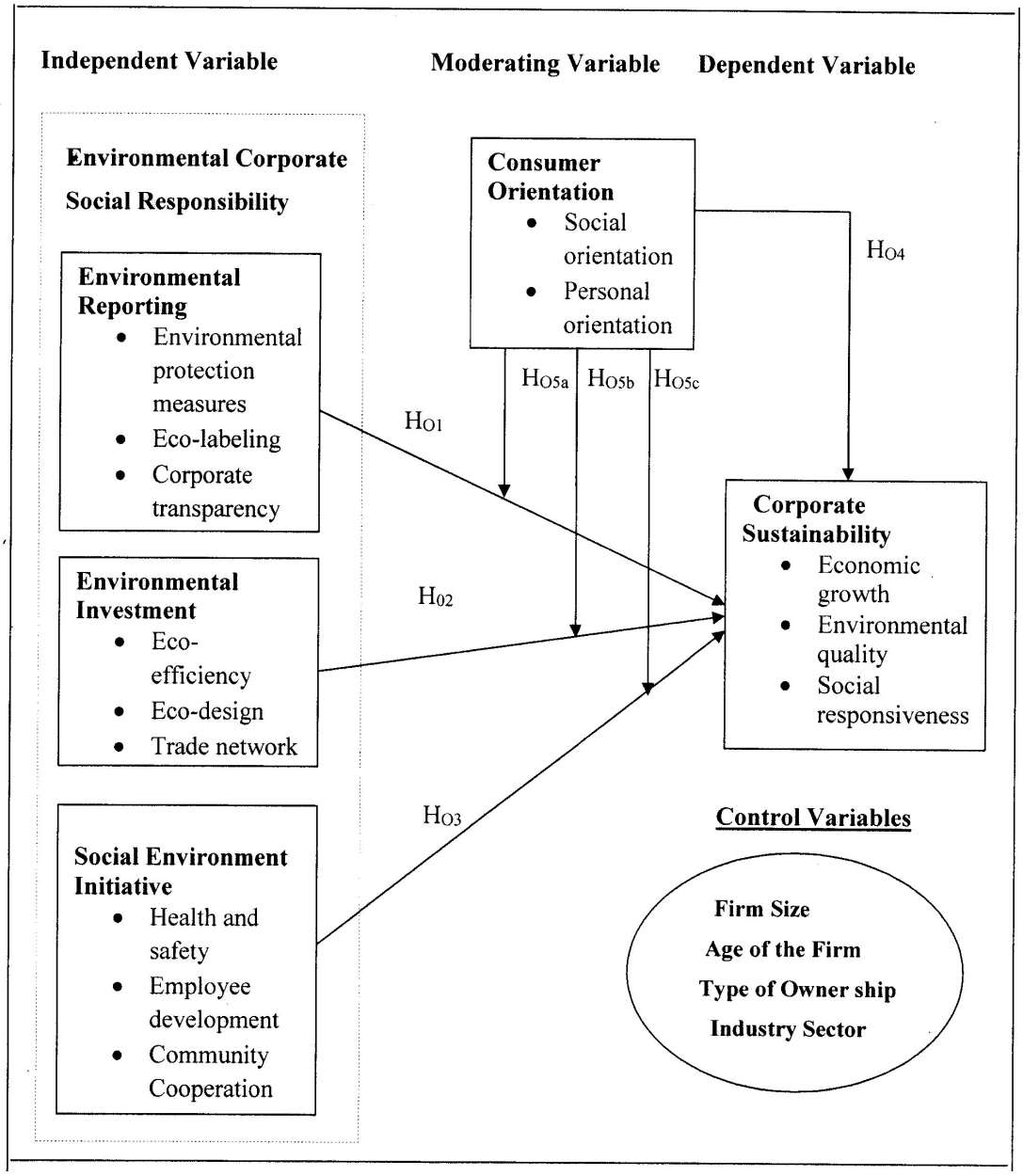

Figure 2.1: Conceptual Model of Consumer Orientation Moderating the Effect of Environmental Corporate Social Responsibility on Corporate Sustainability

Source: The Researcher (2015)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the research methodology that was used in carrying out the study. This includes research design, study area, target population, sample design and techniques, data collection, measures of variables, data analysis, reliability and validity, ethical consideration and limitations.

3.1 Research Design

Explanatory survey research design was adopted in the study to advance the relationship among variables. According to Saunders *et al*. (2011) studies that establish causal relationships between variables use explanatory design. In terms of time horizon, it enabled the study to be carried out at a point in time and was deemed appropriate, as it is often identified with survey research that yields data that can be used to examine relationships among variables (Saunders *et al*., 2011). Surveys are helpful to learn about trends or characteristics of individual attitudes, opinions, beliefs, practices, successes or effectiveness of program or to identify needs (Creswell, 2008). The design was deemed appropriate for the study as it allowed to be carried out in natural settings where researcher could employ random probability samples.

It was also appropriate for the study as it enabled the use of questionnaires that facilitated rapid collection of data from managers and consumers within selected Counties in Kenya. The aim was to extend knowledge of environmental corporate social responsibility, consumer orientation and corporate sustainability. This allows for statistical inferences to be made to broader population and permits the

generalizations of findings to real life situations, thereby increasing the external validity of the study (Frankfort Nachmias & Nachmias, 1996).

3.1.1 Research Philosophical orientation

Philosophical worldview underpinning this study is pragmatism paradigm which is used in mixed methods studies (Morgan, 2007; Patton, 1990) where consequence of actions and real practice orientation are considered. It combines both postpositivists with interpretivism/ constructivism in the form of QUAN + qual. Tashakkori and Teddlie (2010) emphasized that it convey importance of focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem.

3.2 Study Area

The study was carried out between July and November 2014 within the tea and horticultural sectors composed of 113 companies registered under companies Act (cap 486) as members of Agricultural Employers' Association affiliated to the Federation of Kenya Employers. It must be recognized that these companies often lead the way in CSR as they have greater capacity to devote time, money and other resources to it (Chapple & Moon, 2005). Additionally, the firms must be located within the five Counties, namely: Baringo, kericho, Nakuru, Nandi and Uasin Gishu as shown in (Appendix 6). Of course, each firm must have finished its obligation in delivering annual financial report for the last five years which ended 2013.

3.3 Target Population

Target population was 113 producer firms with a total respondents of 784 managers drawn from all the departments and 1,568 consumers living within a radius of ten

kilometers that surrounds the 113 producer firms registered under companies Act (cap 486) as members of Agricultural Employers' Association (AEA Director, 2014), affiliated to the Federation of Kenya Employers. In addition, they should be listed as members as shown in (Appendix 7). Among the members of (AEA), 86 dealt with horticulture, while 27 were in the tea sector spread across 5 counties. The entire target population was 2352 whose characteristics are indicated in Table 3.1.

Table 3.1: Targeted Population and Respondents

Sector	Level/Unit of Analysis		Total	Respondents		Total
	Firms	Households		Managers	Consumers	
Tea	27	54	81	216	432	648
Horticulture	86	142	213	568	1136	1704
Total	113	196	294	784	1568	2352

Source: Researchers' computation, (2015)

3.4 Sample Design and Techniques

This section presents the sample size and sampling techniques used in the study.

3.4.1 Sample size

The study focused on 113 producer firms and to reduce cost, save time and also enable the researcher to estimate some unknown characteristics of the population and make generalization (Zikmund *et al*., 2010). Sample size of 98 firms, 515 consumers and 445 managers were derived using the formula. The researcher adopted Cochran's (1977) sample size formula for continuous and categorical data.

$$\text{no} = \frac{(t)^2 \times (p) \times (q)}{(d)^2}$$

$$\text{no} = \frac{(1.96)^2 \times (0.5) \times (0.5)}{(0.05)^2} = 384$$

t = value for selected alpha level of 0.025 in each tail = 1.96

Where (p) × (q) = estimate of variance = 0.25

d = accepted margin of error for proportion being estimated = 0.05 (error researcher is willing to accept).

If the sample size exceeds 5% of the total population the corrected formula is used.

Corrected formula was used to calculate the final sample size of the producer firms and respondents.

Producer firms $n_1 \quad \frac{no}{(1+no/population)} = \frac{384}{(1+384/113)} = 87$

Response rate of 89% was used as guided by pilot test, sample size of producer firms was $\frac{87}{0.89} = 98$.

Managers $n_1 = \frac{no}{(1+no/population)} = \frac{384}{(1+384/784)} = 258$

Response rate of 58% was used as guided by pilot test, sample size of respondents was $\frac{258}{0.58} = 445$ Managers.

Financial managers $n_1 = \frac{no}{(1+no/population)} = \frac{384}{(1+384/98)} = 78$

Response rate of 58% was used as guided by pilot test; sample size of respondents was 78× 0.58 = 45 financial managers.

Consumers $n_1 = \frac{no}{(1+no/population)} = \frac{384}{(1+384/1568)} = 309$

Response rate of 60% was used as guided by pilot test, sample size of respondents was $\frac{309}{0.60}$ = 515 Consumers.

3.4.2 Sampling techniques

The study adopted multi stage sampling techniques to obtain samples of producer firms, managers and consumers. This was to conform to Bless and Higson-Smith (1995) argument that the major issue in sampling is to determine samples that best represent a population so as to allow for an accurate generalization of results. Random sampling was used to select a sample size of 98 out of 113 registered producer firms in Kenya. For the case of managers this involved generating a list frame of managers of these producer firms to get a total of 784 managers. The managers of each firm were stratified into departments to form strata. This was followed by proportionate stratified sampling in exact proportion to their representation in the population. Then stratified random sampling where random numbers were assigned to recruit the required calculated number of mangers of each stratum representing a department of the firm.

Furthermore, random sampling techniques required that elements in the sampling frame be assigned unique identification codes usually by numbering them from 1 to n so as to make sample selection procedure simple (Black, 2010). Random numbers were assigned to the list frame of managers already proportionately stratified in each firm. Out of which a sample of 445 managers from 98 firms were selected randomly from the strata based on the calculation obtained using Cochran's (1977) sample size formula after adjusting for response rate. Simple random sampling was used to select

45 financial managers to be interviewed where random numbers were assigned to the list frame of 78 financial managers calculated using sample size formula after adjusting for response rate. They provided rich and in-depth information about firm sustainability.

In the context of consumers, to select a representative sample of consumers from the list frame developed and to cope with the incompleteness of this list frame. It was complemented with area frame to build a multiple frame (Kott & Vogel, 1995). In this case area frame of ten kilometers radius surrounding the firms was taken and exhaustive list of consumers was generated. The lists of consumers within these areas were obtained from Provincial administrative offices of chiefs and assistant chiefs. According to Kott and Vogel (1995) area frame sampling ensures completeness but at a greater cost per completed survey, while list frame sampling is less complete but also less costly and more effective for targeting large and/or rare items.

Additionally, lists of contact data on addresses and telephone numbers of consumers kept by producer firms were merged cautiously with lists of area frame from Provincial administrative offices, without duplication of names to form a list used to locate the sampling unit of 1568 consumers for the last five years. In similar vein, Leuthold and Scheele (1971) noted that for some specialized surveys, the telephone directory may be relatively unbiased. While Rich (1977) concludes that for some studies, samples which include only listed subscribers may be adequate and are not different from those of the total subscriber population. Furthermore, Rich (1977) suggested that the choice of sampling frames should be made according to the objective of the survey. The objective was to get consumers who purchased for home consumption and not for resale as well as they lived within the specified radius of ten

kilometers as confirmed by the researcher. In addition, they should be capable of reading and filling questionnaires.

Proportionate stratified sampling was used to obtain consumers per firm followed by stratified random sampling. Random numbers were assigned to the list of consumers of each producer firm to select randomly a total sample of 515 consumers using Cochran's (1977) sample size formula after adjusting for response rate. Subsequently, calls were made to those consumers with telephone numbers to confirm the above conditions. Those who accepted were requested to fill the questionnaire during their next visit to the firm's shop or mall. While those without telephones, questionnaires were delivered to their homesteads. These groups were mutually exclusive and were expected to give answers that were unique to the issue of consumer orientation moderating the effect of environmental corporate social responsibility on corporate sustainability of producer firms in Kenya.

3.5 Data Collection

This section presents the sources of data for the study and the data collection instruments used.

3.5.1 Sources of Data

Study mainly utilized primary data collected from consumers and managers of the producer firms selected through census. The main reason was to avoid common source bias when both the dependent and independent variables come from the same survey where common source bias can be a serious problem (Podsakoff *et al*., 2003).

3.5.2 Data Collection Instruments

Structured questionnaires were administered with the aid of research assistants who were oriented on the process to minimize errors and biases during data collection. Structured questionnaires were also apart from being an effective method of collecting data for large samples they can be easily analyzed (Cooper & Schindler, 2001). Primary data was generated from two types of structured questionnaires. The first type comprised of questionnaires administered to managers of producer firms as shown in (Appendix2). The second type of questionnaires was administered to consumers of producer firms as shown in (Appendix3). The questionnaires were administered on the basis of ‘drop and pick later’. Primary data was also generated from interviewing financial managers of producer firms using unstructured interviews schedule which took place at the business premises within a duration of one hour. This was done immediately after filling questionnaires.

Additionally, Punch (1998) described unstructured interviews as a way to understand the complex behavior of people without imposing any a priori categorization which might limit the field of inquiry. While questionnaires can provide evidence of patterns amongst large populations, qualitative interview data often gather more in-depth insights on participant attitudes, thoughts and actions (Kendall, 2008). During the interviews data instruments like financial statements and human resource inventory were used as support documents to response. Interview schedule as shown in (Appendix 4) aimed at gaining insightful findings based on topical issues of interest on moderating effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability of producer firms. The purpose of this concurrent triangulation of QUAN + qual was to achieve complementarity, corroboration and confirmation of data (Creswell, 2003).

3.5.3 Merging Data of Consumers and Managers

Data collected from managers on ECSR and CS as well as data collected from consumers on CO were each averaged and aggregated to firm level data, a composite index was thus computed to connect consumers and managers. The basis was that the unit of analysis was each producer firm. The data were merged by composite index design similar to one utilized by Xu *et al*. (2005). The essence of merging was to develop indices of consumers and managers data for each firm.

This leads to better understandability when results are presented as scores or rankings that key stakeholders, decision makers and the general public can easily comprehend (Kenney *et al*., 2012). In addition, Maggino and Zumbo (2012) argued that a potential advantage of developing composite indices is that they can help to overcome problems concerning precision, reliability, accuracy and validity. Admittedly, associated with using individual indicators like a variable that is not directly observable through an individual indicator may require integration of multiple indicators, each corresponding to a particular aspect of the variable.

Although, Kenney *et al*. (2012) argues that it is important to be aware that the aggregation of individual indicators into a composite index to produce a summary statistic results in a loss of specificity and may mask important information about individual indicators. On the other hand, Xu *et al*. (2005) asserted that there is no alternative if one wants to assess the full service profit chain model, since it is the firm that connects employees to customers. Importance of composite indices of data entails creation of dyadic data set which according to Jeon and Choi (2012), dyadic data set involves judgments by employees and their corresponding customers, an approach that rules out the risk of a common method bias. Thus, composite indices of

data from consumers and managers of 98 producer firms were used in testing the model.

3.6 Measurement of Variables

In this study three types of variables were measured namely: independent, moderator and dependent. The independent variable was environmental corporate social responsibility and moderator variable was consumer orientation. The dependent variable was corporate sustainability.

3.6.1 Corporate Sustainability

Seven point likert scale was developed using measures from Szekely and Knirsch (2005), who calls for the need to balance the three CS pillars to ten different dimensions to be sustained. Scale items were adopted and slightly modified to capture the three pillars of corporate sustainability. The appropriateness is that the scale has been tested under different settings and context for generalization, reliability, internal and external validity and found to be robust measure (Yang, 2013). Respondents were asked the extent to which they agreed or disagreed with a series of statements about overall sustainability in their firm indicated by 1- Strongly disagree (SD), 2- Disagree (D), 3- Slightly disagree (SD), 4- Neutral (N), 5- Slightly agree (SA), 6 – Agree (A) and 7 – Strongly agree (SA).

3.6.2 Environmental Corporate Social Responsibility

The measurement for environmental corporate social responsibility was adopted from eleven items scale of CSR according to (Grunig, 1979) and thirty items scale of CSR dimensions according to (Kanji, 2010). Scale items were adopted and slightly modified to capture environmental corporate social responsibility. The scale items covered; *Environmental reporting*: environmental protection measures, eco-labeling and corporate transparency. *Environmental investment*: eco-efficiency, eco-design and trade network. *Social environment initiative*: health and safety, employee development

and community cooperation. The appropriateness of this scale has been developed under different settings (Lorraine Sweeney, 2009). Respondents were asked the extent to which they agreed or disagreed with a series of statements, closely describing their firm ECSR on a 7-point likert scale indicated by “Strongly Disagree” (1) – “Strongly Agree” (7).

3.6.3 Consumer Orientation

The measurement for consumer orientation was adopted from the scale used by Vitell and Muncy (2005). Forty One (41) items scale was adopted and slightly modified to capture consumer orientation as explained by Tsai (2005). It captured social and personal orientation explained by the following main determinants. Social orientation which provides satisfaction to consumers includes: social conformity, culture, status seeking, fashion consciousness and price-quality schema. Personal orientation which provides satisfaction to consumers includes: awareness, ethical value, attitude, income and integrity. The appropriateness is that the scale has been tested under different settings and context for reliability, generalization, internal and external validity and found to be robust measure (Beck & Ajzen, 1991). Respondents were asked the extent to which they agreed or disagreed with a series of statements about overall intention to buy products from firms practicing ECSR on a 7-point likert scale indicated by “Strongly Disagree” (1) – “Strongly Agree” (7).

3.6.4 Control Variables

Control variables used were according to Margolis *et al*. (2007), who discussed that the most common control variables include: firm size, industry sector and firm age (Godos-Díez, 2011) also firm ownership (Oh *et al*., 2011) and these represented appropriate control variables.

3.6.5 Reliability and Validity of Instruments

Reliability tests the consistency of items when using multiple measurements of a variable (Hair *et al*., 2010).The study applied the Cronbach Alpha coefficient to test the reliability of the constructs. According to Hair *et al*. (2005), the general agreed upon lower limit for Cronbach's Alpha is 0.70 but may decrease to 0.60 in exploratory researches and more than 0.80 in studies that require more stringent reliability. The adopted threshold value of this study was 0.7. Using SPSS, reliability test results revealed that the items had met the set threshold with the lowest being 0.727 while the highest 0.943. Although, reliability of instruments for ECSR have been checked for by several authors like Lorraine Sweeney (2009) with composite reliability of 0.908. The results slightly differed which was attributed to deleting items with corrected item-total correlation of less than 0.3. In addition, it was attributed to deleting factors with loadings less than 0.6 after subjecting to factor analysis for summarization and data reduction (Hair *et al*., 2010).

Validity refers to the extent to which a research instrument measures what it was intended to measure (Zikmund *et al*., 2010).The goal of the pilot study was to validate the instruments through content validity, face validity, criterion validity and construct validity (Zikmund *et al*., 2010). Content validity was validated by determining the variables which have been defined and used in literature previously. Face validity was established by inspecting the concepts being studied for their appropriateness to logically appear to reflect what was intended to be measured. Criterion validity is the ability of measures to correlate with other standard measures of similar constructs or established criteria (Zikmund *et al*., 2010). Construct validity is the extent to which constructs hypothetically relate to one another to measure a concept based on the theories underlying a research (Zikmund, 2000).

In terms of validity, this research tested both convergent and discriminant validity. Convergent validity is the ability of a scale to correlate with other scales that claim to measure the same construct (Schmidt & Hollensen, 2006). Discriminant validity is the magnitude of the relationship between the items and latent construct which should be statistically different from zero (Byrne, 2001). Validity recommended threshold value was 0.50 according to Hair *et al*. (1995). All the constructs had values greater than 0.50 demonstrating convergent validity and discriminant validity.

3.6.6 Assumptions of Regression Model

Prior to regression analysis test of normality, linearity, multicollinearity and homoscedasticity of samples data was performed.

3.7 Data Analysis

Data analysis refers to the computation of data collected along with searching for patterns of relationship that exist among data collected by use of both descriptive and inferential statistics. Descriptive statistics is the transformation of raw data into a form that would provide information to describe a set of factors in a situation that will make them easy to understand and interpret (Zikmund, 2000). Descriptive statistics on demographic variables and constructs of the scales provide an overview of the sample. A reliability analysis was conducted on the questionnaire items using the Cronbach's Alpha coefficient and corrected item - total correlation for each sub construct. In addition, to check the adequacy of the data for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity were used.

Subsequently, Factor Analysis (FA) was used to reduce, extract, establish unidimensionality and retain variables or factors which met loading threshold to be

used for further analysis. As stated by Williams *et al*. (2010) that FA is utilized in development, refinement, evaluation of tests, scales and measures. On the other hand, inferential statistics are frequently used to answer cause and effect questions and make predictions about the properties of a population based on information obtained from a sample. Pearson product-moment correlation was used to determine the extent of correlation between the independent and dependent variables and to assess the potential of multicolinearity as prerequisite for multiple and hierarchical regression analysis.

Multiple and hierarchical regression is more replicable and reliable for evaluating the contribution of predictors' variables that support a theory (Lewis, 2007). It is preferable to use hierarchical regression analysis when one has an idea about the order in which one wants to enter predictors and wants to know effect on criterion. The purpose was to analyze the hypothesized relationships and strength of each construct in its respective model (Hair *et al*., 1995). Generally multiple regression analysis has been suggested as a good statistical method for associational research approach that has several independent variables and one dependent variable (Gliner *et al*., 2009). Content analysis was used to analyze qualitative response to open ended questions on survey interviews of financial managers.

3.7.1 Analytical model

Therefore, to test the hypotheses both multiple and hierarchical regression analyses were conducted to analyze moderating effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability of producer firms in Kenya.

3.7.2 Testing Hypotheses of Environmental Corporate Social Responsibility on Corporate Sustainability

The hypotheses were tested using a series of hierarchical regression analyses. Hierarchical regression analysis refers to the method of regression in which not all the variables are entered simultaneously but one at a time. In each step the correlation of Y the criterion variable with the current set of predictors is calculated and evaluated. At each stage the R square that is calculated shows the incremental change in variance accounted for in Y with the addition of the most recently entered predictor and is exclusively associated with that predictor. The variables were mean-centered before calculating the interaction terms to minimize the effects of multicollinearity. In model 1 the control variables were entered.

$CS = \alpha + \beta_1 (FA) + \beta_2 (FS) + \beta_3 (TO) + \beta_4 (IS) + \varepsilon$ Step 1…….Model 1.

Where; FA= firm age, FS= firm size, TO= type of ownership, IS= industry sector and ε = Error.

To test hypotheses H_{01}- H_{03} multiple hierarchical regression analysis as shown in model 2 was performed. In this model corporate sustainability is a function of environmental reporting, environmental investment, social environment initiative and controlled variables. To find support for any effect of environmental corporate social responsibility on corporate sustainability, the coefficients (β_1 – β_3) were to be significant for the respective dimensions. Thus; $CS = \alpha + \beta_1 (ER) + \beta_2 (EI) + \beta_3 (SEI) + C + \varepsilon$ Step 2……....Model 2.

3.7.4 Testing Hypotheses of Consumer Orientation and Interaction with Environmental Corporate Social Responsibility on Corporate Sustainability

To test hypotheses $H_{04,}$ H_{05a}, H_{05b} and H_{04c} hierarchical regression analysis was conducted with a moderator. Moderated hierarchical regression analysis determines the extent that moderator interaction affects the relationship between ECSR and CS. Consumer orientation plus interaction effects with environmental corporate social responsibility on corporate sustainability were included in the regression models 3 to 6. Stated by Baron and Kenny (1986) the study considered a moderator effect to exist if the interaction term explains a statistically significant amount of variance of criterion variable. Significant relationship should exist between independent variables and moderator variable where coefficients β_1- β_7 should be different from zero.

$CS = \alpha + \beta_1 (ER) + \beta_2 (EI) + \beta_3 (SEI) + \beta_4 (CO) + C + \varepsilon$ Step 3……...……Model 3.

$CS = \alpha + \beta_1 (ER) + \beta_2 (EI) + \beta_3 (SEI) + \beta_4 (CO) + \beta_5 (CO*ER) + C + \varepsilon$ Step 4……..…Model 4.

$CS = \alpha + \beta_1 (ER) + \beta_2 (EI) + \beta_3 (SEI) + \beta_4 (CO) + \beta_5 (CO*ER) + \beta_6 (CO*EI) + C + \varepsilon$ Step 5…….Model 5

$CS = \alpha + \beta_1 (ER) + \beta_2 (EI) + \beta_3 (SEI) + \beta_4 (CO) + \beta_5 (CO*ER) + \beta_6 (CO*EI) + \beta_7 (CO*SEI) + C + \varepsilon$ Step 6 …… Model 6

Where; CS = Corporate sustainability, α = Constants, β_1 – β_7 = coefficients, ER = Environmental reporting, EI = Environmental investment, SEI = Social environment initiative, CO = Consumer orientation, C= Control variables, ε = Error term,

CO*****ER= Z score consumer orientation* Z score environmental reporting, CO*****EI = Z score consumer orientation* Z score environmental investment and CO*****SEI= Z score consumer orientation* Z score social environment initiative.

3.8 Ethical Considerations

An ethical approach to research was formulated with two considerations. The first consideration dealt with attending to processes and systems associated with the research procedure. The second consideration was founded on the basis of a set of belief systems about what was deemed to be in the best interest of the participants. The former position comprised ethical rules of engagement, particularly on how the research was carried out. Permission to carry out the study was sought from the School of Business and Economic, Moi University and Research Clearance Permit from National Commission for Science, Technology and Innovation. The researcher also notified and sought permission from Chief Executive Officers of selected firms, County Commissioners and County Directors of Education of selected counties as shown in (Appendices 1 and 5).

Meanwhile, the later position comprised respecting individuals' rights and safeguarding their personal integrity. The participants were not required to write their names on the questionnaire, but each questionnaire was given a code number for reference hence the anonymity of the respondents was maintained. The participants were assured that the information given was treated confidentially and for the purpose of academic use only. They were also assured of their rights and freedom to withdraw from the study at any point or time without consequences. This was in line with Heneman (1974) who showed that subjects are more likely to give unbiased responses when their anonymity is assured.

3.9 Limitations of the Study

The study findings may not be generalized to cover firms in developed countries, since their level of environmental corporate social responsibility is significantly different to those expected in a less developed third world country like Kenya. In addition, Social desirability bias may occur, either consciously or unconsciously, because environmental management is considered a socially responsible corporate activity and therefore, respondents tend to respond in a manner that is shown favorably by others (Zikmund, 2003). An obvious limitation of surveys, in the context of ethical issues of social desirability and affirmation biases where managers and consumers conform to pressure of social, prejudice and corporate agenda.

Despite the best efforts to interview the most knowledgeable respondents within the randomly selected 45 firms, only one respondent financial manager per firm was interviewed. The generalisability of the responses to represent views and processes of all the firms, were therefore heavily restricted and no assurance could be made that the respondent was in fact the most suitable candidate of the firm. Given that this was the case for the entire sample, it was expected such drawbacks to be smoothed out across all firms.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Introduction

This chapter presents discussed empirical results of the study data analysis. The data on environmental corporate social responsibility, moderation of consumer orientation and corporate sustainability were compared with respect to the relationships of the proposed model. In the first section data presentation was on response rate, demographic characteristics of the firms. This was followed by descriptive statistics, reliability, validity and factor analysis. Subsequently, it was followed by inferential statistics on correlations, multiple hierarchical regression analysis and finally discussion of empirical results and related literature of the findings.

4.1 Data Screening and Cleaning

Data collected from managers and consumers of selected producer firms in Kenya was subjected to screening and cleansing examination in order to determine response rate, missing values and outliers. According to Fichman *et al.* (2005) data preparation and cleaning is the necessary step towards determining whether the collected data is sufficient enough to allow for generalization of the study findings.

4.1.1 Response Rate of Producer Firms, Managers and Consumers

Sample consisted of producer firms and two categories of respondent consumers and managers of the sampled 98 producer firms in Kenya. A total of four hundred and forty five (445) questionnaires were distributed to managers. While five hundred and fifteen (515) questionnaires were distributed to consumers at the firm's shop or mall and their homestead administered by way of 'drop and pick later.' Four hundred and

five (405) questionnaire scripts were duly filled by managers successfully and returned while forty (40) were either not returned or returned partially filled.

Three hundred and ninety eight (398) questionnaires scripts were dully filled by the consumers of the respective companies and returned while one hundred and seventeen (117) questionnaires were either not returned or returned partially filled. The overall response rate was hence recorded at 100% (98/98*100) producer firms, 91% (405/445*100) managers while for the consumers of the respective firms was reported at 77% (398/515*100). The response rate was, therefore, accepted as adequately sufficient for the intended purpose (Table 4.1). As stated by Fowler (2002) that there was no agreed upon minimum response rate, the more responses received, the more likely it was that one would be able to draw statistically reliable conclusion about the target population. However, Babbie (2007) asserted that published social research literature suggested that a response rate of at least 50 percent was considered adequate for analysis and reporting.

Table 4.1: Response Rate of the Firms, Managers and Consumers

	Producer firms	**Managers**	**Consumers**
Sample size number	98	445	515
Number responded	98	405	398
Number not responded	0	40	117
Response rate %	100	91	77

Source: Survey Data (2015)

4.1.2 Missing Values

Data was explored for possible problem cases such as missing values before data was subjected for further analysis. In this study, missing values were evaluated with respect to cases as distributed in the seven Likert scale points. On the side of managers most cases of 405 (91%) had no missing values, 12 (3%) cases had one missing value, 10 cases (2%) had two missing values, 6 (1%) cases had three missing value while 12(3%) had over three missing values. Consumers most cases 398 (77%) had no missing values, 37 (7%) cases had one missing value, 14 cases (3%) had two missing values, 20 (4%) cases had three missing value while 46 (9%) had over three missing values as indicated in Table 4.2.

Table 4.2: Distribution of Number of Missing Values per Case

Number of missing values	**Number of cases Managers**	**Percentage**	**Number of cases Consumers**	**Percentage**
0	405	91	398	77
1	12	3	37	7
2	10	2	14	3
3	6	1	20	4
Over 3	12	3	46	9
Total	**445**	**100.00**	**515**	**100.00**

Source: Survey Data (2015)

4.1.3 Profile of Participating Firms

Profile of the participating firms was considered relevant so as to control the extraneous influence on corporate sustainability. The profile of these participating firms was measured in terms of firm age, firm size, type of ownership and industry sector. Firm age which often indicates the length of time a firm has been in business tend to have an effect on its managerial practices. This is because it can expand over time by accumulating knowledge through learning by doing, increasing confidence in problem solving capability and having the ability to do a better ECSR plan in order to cope with uncertainty. Most firms (n = 35, 35.71%) have been operating between 11 and 20 years, (n = 34, 34.70%) between 1 and 10 years, (n = 20, 20.40%) between 51 and above years, (n = 5, 5.10%) between 21 and 30 years, while (n = 3, 3.10%) have been operating between 31and 40 years and (n = 1, 1.00%) have been operating between 41and 50years.

Firm size was measured by the total number of current full-time employees which was seen as an important determinant of firm economies of scale and competitive advantage. Where most firms (n = 45, 45.90%) employed 401-800 employees, (n = 25, 25.50%) employed 801-1200 employees, (n = 11, 11.20%) employed 1201-1600 employees, (n = 10, 10.20%) employed 1-400 employees, (n = 4, 4.10%) had between 1601-2000 employees and (n = 3, 3.10%) employed 2001 and above employees. Regarding ownership, the firm's involvement in ECSR activities may therefore vary significantly depending on the firm's type of ownership. Majority of the firms (n = 33, 33.70%) were limited liability, (n = 29, 29.60%) sole proprietorship, (n = 27, 27.60%) partnership, (n = 7, 7.1%) subsidiary and (n = 2, 2.00%) state owned. Pertaining industry sector, the different industrial sectors may influence variation in

organizational context, for example, implication of firm's cultures, managerial style and control systems. Majority of the firms (n = 71, 72.45%) were from horticulture sector and (n = 27, 27.55%) from tea sector as shown in Table 4.3.

Table 4.3: Profile of Participating Firms

		Frequency	Percent
Firm age			
	1-10	34	34.70
	11-20	35	35.70
	21-30	5	5.10
	31-40	3	3.10
	41-50	1	1.00
	51 and Above	20	20.40
Firm size			
	1-400	10	10.20
	401-800	45	45.90
	801-1200	25	25.50
	1201-1600	11	11.20
	1601-2000	4	4.10
	2001 and above	3	3.10
Firm ownership			
	Sole proprietorship	29	29.60
	partnership	27	27.60
	Limited liability	33	33.70
	Subsidiary	7	7.10
	State owned	2	2.00
Firm industry Sector			
	Tea	27	27.55
	Horticulture	71	72.45

Source: Survey Data (2015)

4.2 Data Management

This section presents coding of merged data in statistical software for analysis.

4.2.1 Merging of Data

As earlier discussed in chapter three data collected from four hundred and five (405) managers on ECSR and CS as well as data collected from three hundred and ninety eight (398) consumers on CO were each averaged and aggregated to firm level data. Thus, a composite index of data was computed to connect consumers and managers. The basis was that, the unit of analysis was each producer firm. The data was merged by composite index design similar to one utilized by Xu *et al*. (2005). The essence of merging was to develop indices of managers and consumers data for each firm to be used in descriptive and inferential statistics for testing the model.

This leads to better understandability when results are presented as scores or rankings to key stakeholders, decision makers and the general public can easily comprehend (Kenney *et al*., 2012). In addition, Maggino and Zumbo (2012) argues that a potential advantage of developing composite indices is that they can help to overcome problems concerning precision, reliability, accuracy and validity that are associated with using individual indicators. This is because a variable that is not directly observable through an individual indicator may require integration of multiple indicators, each corresponding to a particular aspect of the variable.

4.2.2 Coding Data in Statistical Software

Variables data was defined and coded in statistical software (SPSS version 22). Data was analysed for the presence of outliers. The guideline for detecting such outliers was based on Fichman *et al*. (2005) guidelines. In the guidelines, responses which fell over three standard deviations away from the mean score were noted as lying outside

the desired boundaries hence outliers. Four outliers were detected and according to Fields (2009), detection of outliers could cause seriously significant skewness (asymmetry) of data distribution and must, therefore, be conscientiously managed. The identified four outliers were managed in accordance with provisions advanced by Field (2009), changing the score of the data through the next highest score plus one method discarded 2 extreme cases clarified.

4.3 Descriptive Statistics of Study Constructs

Respondents from the firms were asked to provide information regarding to their levels of agreement with the items concerning environmental corporate social responsibility on corporate sustainability. Descriptive measures of central tendency and dispersion were computed and the outcome was important for investigating whether or not the variables were normally distributed. Environmental corporate social responsibility was identified as the independent variable for the study. It was measured with 25 items representing three constructs of environmental reporting, environmental investment and social environment initiative dimensions. Managers were asked to indicate their agreement or disagreement to variables items representing the three dimensions on a 7-point Likert scale questionnaire.

4.3.1 Descriptive Statistics of Environmental Reporting by Managers

Managers were asked to provide information concerning their perception towards environmental reporting in their firms. The scale consisted of ten items reflecting on environmental reporting. A 7- point Likert scale ranging from 1- Strongly disagree, 2 - Disagree, 3 - Slightly disagree, 4 - Neutral, 5 - Slightly agree, 6 – Agree and 7 – Strongly agree was used to elicit responses from managers. The descriptive results for environmental reporting indicates that on average, managers arbitrated the construct

somehow agreeable with mean and standard deviation values of (M = 5.413, SD = 0.179) respectively with distribution that was remarkably consistent. This was an indication that results were confirmed as values that could possibly inform levels of environmental reporting as shown in Table 4.4.

Table 4.4: Descriptive Statistics on Environmental Reporting by Managers

Items	**Mean**	**S.D**
Firm has an accurate report on resource sustainability	5.372	0.180
Firm has a transparent report on eco-efficiency	5.400	0.166
Firm has a clear report on trade networks	5.390	0.159
Firm has a clear report on health and safety	5.421	0.180
Firm has an accurate report on employee development	5.388	0.169
Firm has a clear report on eco-design of products	5.434	0.175
Firm has a clear report on community projects	5.424	0.162
Firm has an accurate report on environment protection measures	5.450	0.203
Firm has a clear and accurate report on eco- labeling	5.411	0.216
Firm reports are based on Global Reporting Initiative	5.441	0.176
Average	5.413	0.179

Variable description (environmental reporting) N = 98, SD = Standard deviation

Source: Survey Data (2015)

4.3.2 Descriptive Statistics on Environmental Investment by Managers

Environmental investment dimension was analyzed for descriptive statistics with seven items. Responses were obtained on a 7- point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. The managers on average agreed with the level of firms investment on environment (M = 5.444, SD = 0.226). Descriptive results specifically mean response scores for the dimensions indicates that firms sampled in the study had somewhat invested on environment. The results imply that most firms invested on environment to achieve sustainability as summarized in Table 4.5.

Table 4.5: Descriptive Statistics on Environmental Investment by Managers

Item	Mean	S. D
Our firm invests on sustainability of natural resources	5.389	0.236
Our firm invests on biodiversity through conservation of land, water and energy	5.390	0.234
Our firm protect environment through reduce, reuse and recycle of products	5.397	0.271
Our firm invests on cleaner production to prevent global warming	5.497	0.247
Our firm encourage fair trade networks to link community farmers and green consumers	5.402	0.254
Our firm assist community members to sell their fair trade label products at premium	5.520	0.161
Our staff members are involved in volunteer work	5.515	0.176
Average	5.444	0.226

Variable description (environmental investment) N = 98, SD = Standard deviation

Source: Survey Data (2015)

4.3.3 Descriptive Statistics for Social Environment Initiative from Managers

Social environment initiative dimension was analyzed for descriptive statistics using eight items. Responses were elicited on a 7- point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. The descriptive results for social environment initiative dimension indicates that on average managers judged the construct as agreeable (M = 5.438, SD = 0.181). This shows that firms sampled took care of both internal and external environments as exhibited by the mean response scores of firms. The results seem to point towards a healthy social environment responsibility as displayed in Table 4.6.

Table 4.6: Descriptive Statistics for Social Environment Initiative from Managers

Item	Mean	S.D
Firm uphold occupational health and safety of all employees	5.456	0.162
Firm attain average wage rates and benefits of employees as per the collective bargaining agreement	5.454	0.165
Firm encourages development of employees	5.426	0.179
Firm avoid any form of employment discrimination	5.444	0.227
Firm ensures work life balance among employees	5.432	0.168
Firm actively involved in social project(s) with the local community	5.436	0.163
Firm donations to empower individuals within the community	5.421	0.173
Firm intention is to motivate employees	5.432	0.210
Average	5.438	0.181

Variable description (social environment initiative) N = 98, SD = Standard deviation

Source: Survey Data (2015)

4.3.4 Descriptive Statistics for the Moderating Variable Consumer Orientation

Consumer Orientation was treated as the moderating variable in the study. It was measured using 13 items that depicted the two extremes sub-constructs of personal orientation and social orientation. Consumers were asked to provide information

regarding their levels of agreement concerning consumer orientation. Responses were elicited on a 7- point Likert scale ranging from 1- Strongly disagree, 2- Disagree, 3- Slightly disagree, 4- Neutral, 5- Slightly agree, 6 – Agree and 7 – Strongly agree. The results of the descriptive analysis were found that on average consumers arbitrated the construct as agreeable with mean and standard deviation values of (M = 5.426, SD = 0.402) with distribution that was remarkably consistent. The results suggest that consumers sampled in the study somehow appreciated firms that took an active role in environmental corporate social responsibility as shown in Table 4.7.

Table 4.7: Descriptive Statistics for Consumer Orientation from Consumers

Items	**Mean**	**SD**
I am willing to support ethical firm	5.291	0.379
I believe this firm is truly ethical	5.586	0.526
I am sure this firm is ethical	5.440	0.439
I consider firm's ethical behaviour as a factor when buying products	5.385	0.438
I am willing to buy products from a firm which ensures intergenerational resource equity	5.492	0.381
I am willing to purchase products if culture allows	5.492	0.347
I can make personal sacrifices to attain social status	5.298	0.374
I am willing to purchase products attached to fashion consciousness	5.607	0.489
I can pay high price for ethical products as an indicator of good quality	5.446	0.393
I consider health benefits	5.386	0.303
I am willing to purchase products attached to high ethical value	5.399	0.410
I can pay more for products to uphold integrity	5.332	0.375
I am willing to pay more if income increases	5.389	0.370
Average	5.426	0.402
Variable description (consumer orientation) N=98, SD= Standard deviation		

Source: Survey Data (2015)

4.3.5 Descriptive Statistics for Corporate Sustainability from Managers

Corporate sustainability was conceptualized as the dependent variable of the study. Responses were obtained on a 7- point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. It was measured using 15 items and the findings indicated that on the basis of mean response scores the managers rated corporate sustainability (M = 5.466, SD = 0.153). This depicted that, there was a near general consensus about the construct items which produced an agreed response. This shows that efforts made by producer firms towards environmental corporate social responsibility had some effects (Table 4.8). These effects are manifested in the form of corporate sustainability.

Table 4.8: Descriptive Statistics for Corporate Sustainability from Managers

	Mean	S.D
Firm attain high profits	5.41	0.122
Firm increase sales due to market expansion	5.416	0.118
Firm meeting today's generation resource needs without compromising future generation needs	5.440	0.132
Firm gains prestige	5.447	0.129
Firm reputation is enhanced making it competitive in the market	5.464	0.143
Firm produce ethically products which consider consumer needs	5.470	0.135
Firm maintains stewardship of quality products throughout their lifecycle	5.460	0.156
Firm achieve morally accepted set standards	5.470	0.137
Firm create sustainable jobs to all stakeholders	5.465	0.174
Firm attains success of community development	5.500	0.159
Firm meet the legal requirements	5.444	0.221
Firm is effective due to controlled innovative internal business processes	5.492	0.151
Firm promote learning and growth which is the driving force to success	5.500	0.159
Firm attains consumer loyalty	5.513	0.166
Firm retain employees	5.549	0.190
Average	5.466	0.153

Variable description (corporate sustainability) N = 98, SD = Standard deviation

Source: Survey Data (2015)

4.4 Reliability and Validity of the Constructs

As mentioned in chapter three, reliability is the extent to which a variable is consistent in what was supposed to measure (Hair *et al*., 2006). Reliability of the items for the study was assessed by determining the items' Cronbach's alpha coefficients. The generally acceptable level of Cronbach's alpha is above 0.70 and it may decrease to 0.60 in exploratory research (Hair *et al*., 2006) and the desired minimum level of Cronbach's alpha for this study was 0.70. The scores of reliability coefficients for this study were calculated using SPSS software and the results were shown in Tables 4.9, 4.10, 4.11, 4.12 and 4.13. In addition, purification of items was done and items which had corrected item-total correlation of less than 0.30 were being deleted from further analysis as this indicated that the items were measuring something different from the scale as a whole or total score. The purification of items based on the criterion of 0.30 and above as an acceptable corrected item–total correlation was according to Nunnally and Bernstein (1994).

4.4.1 Reliability Analysis for Environmental Reporting

Reliability results revealed that all the items in the environmental reporting construct had recorded Cronbach's alpha reliability coefficient of 0.884 and standardized item alpha of 0.888. This indicated that all the dimensions in the construct had exceeded the recommended threshold value of 0.70 for Cronbach's alpha coefficients demonstrating good internal consistency. However, one item had corrected item–total correlation threshold value of less than 0.30 which according to Nunnally and Bernstein (1994) was identified as unacceptable (Item 8) and was deleted from further analysis. It was "Firm has an accurate report on environment protection measures" as

shown in Table 4.9. Given corrected item-total correlation indicated the degree to which each item measuring environmental reporting correlated with the total score. Therefore, the nine items were related systematically to one another in a linear manner because they measured the same construct and were consistent with one another to the extent that each item was free from measurement error.

Table 4.9: Reliability Analysis for Environmental Reporting

Variables	CI-TC	CAID
Environmental reporting (10 items)		
Firm has an accurate report on resource sustainability	0.711	0.866
Firm has a transparent report on eco-efficiency	0.810	0.860
Firm has a clear report on trade networks	0.733	0.866
Firm has a clear report on health and safety	0.656	0.870
Firm has an accurate report on employee development	0.650	0.871
Firm has a clear report on eco-design of products	0.630	0.872
Firm has a clear report on community projects	0.445	0.884
Firm has an accurate report on environment protection measures	0.284*****	0.899
Firm has a clear and accurate report on eco- labeling	0.659	0.870
Firm reports are based on Global Reporting Initiative indicators	0.674	0.869
Reliability 0.884, based on standardized items 0.888		
Notes: Item deleted ***** Corrected Item-Total Correlation < 0.30, Cronbach's Alpha > 0.70 , N = 98, CI-TC = Corrected Item-Total Correlation, CAID = Cronbach's Alpha if Item Deleted		

Source: Survey Data (2015)

4.4.2 Reliability Analysis for Environmental Investment

Results revealed that all the items in the environmental investment scale attained Cronbach's alpha reliability coefficient of 0.727 and a standardized item alpha of 0.729. Meaning that, all the items in the construct had exceeded the recommended cut-off value of 0.70 for Cronbach's alpha coefficients. This indicated satisfactory internal consistency reliability of all the items, but based on the criterion of 0.30 as an acceptable corrected item–total correlation threshold. One item had corrected item–

total correlation less than 0.3 which was identified as unacceptable (Item 7) and was deleted from further analysis. That was “Our firm staff members are involved in volunteer work like training community members” as shown in Table 4.10.

Table 4.10: Reliability Analysis for Environmental Investment

Variables	CI-TC	CAID
Environmental investment (8 items)		
Our firm encourages sustainability of natural resources	0.550	0.800
Our firm encourages biodiversity through conservation of land, water and energy	0.549	0.676
Our firm protect environment through reduce, reuse and recycle of products	0.443	0.695
Our firm maintain cleaner production to prevent global warming	0.625	0.659
Our firm encourage fair trade networks to link community and green consumers	0.501	0.682
Our firm assist community members to sell their fair trade label products at premium	0.614	0.654
Our firm staff member are involved in volunteer work like training community members	0.145*****	0.742
Reliability 0.727, based on standardized items 0.729		
Notes: Item deleted ***** Corrected Item-Total Correlation < 0.30, Cronbach's Alpha > 0.70, N = 98, CI-TC= Corrected Item-Total Correlation, CAID = Cronbach's Alpha if Item Deleted		

Source: Survey Data (2015)

4.4.3 Reliability Analysis for Social Environment Initiative

As for social environment initiative, results indicated that all the items recorded Cronbach's alpha reliability coefficient of 0.935 and a standardized item alpha of 0.941. Indicating that, all the dimensions in the construct had exceeded the recommended threshold value of 0.70 for Cronbach's alpha coefficient (Table 4.11). Therefore, it was concluded that all dimensions in the construct had sufficient internal consistency and were used for further analysis.

Table 4.11: Reliability Analysis for Social Environment Initiative

Variables	CI-TC	CAID

Social environment initiative (8 items)		
Firm intention is to uphold occupational health and safety of all employees	0.793	0.925
Firm intention is to attain average wage rates and benefits of employees as per the collective bargaining agreement	0.758	0.927
Firm encourages development of employees both professionally and personally	0.845	0.920
Firm avoid any form of employment discrimination	0.644	0.939
Firm ensures work life balance among employees	0.840	0.921
Firm actively involves in social project(s) with the local community	0.868	0.920
Firm donations to empower individuals within the community	0.818	0.923
Firm intention is to motivate employees	0.710	0.932
Reliability 0.935, based on standardized items 0.941		
Notes: Item deleted ***** Corrected Item-Total Correlation < 0.30, Cronbach's Alpha > 0.70, N = 98, CI-TC = Corrected Item-Total Correlation, CAID = Cronbach's Alpha if Item Deleted		

Source: Survey Data (2015)

4.4.4 Reliability Analysis for Consumer Orientation

In testing for the reliability of consumer orientation results revealed that all the dimensions in the scale had recorded Cronbach's alpha reliability coefficient of 0.753 and a standardized item alpha of 0.767. All the dimensions in the construct had exceeded the recommended cut-off value of 0.70 for Cronbach's alpha coefficient. Therefore, all dimensions in the construct had satisfactory internal consistency. Based on the criterion of 0.30 as an acceptable corrected item–total correlation threshold, three items never met acceptable corrected item–total correlation lower bound of 0.30. They were identified as unacceptable (Items 1, 2 and 7) namely: "I am willing to support ethical firm", "I believe this firm is truly ethical" and "I can make personal sacrifices to attain social status" were deleted respectively from further analysis as summarized in Table 4.12.

Table 4.12: Reliability Analysis for Consumer Orientation

Variables	CI-TC	CAID
Consumer orientation (13 items)		
I am willing to support ethical firm	0.021*****	0.772
I believe this firm is truly ethical	0.280*****	0.753
I am sure this firm is ethical	0.400	0.765
I consider firm's ethical behaviour when buying products	0.475	0.726
I am willing to buy products from firm which ensures intergenerational resource equity	0.604	0.714
I am willing to purchase products if culture allows	0.644	0.712
I can make personal sacrifices to attain social status	-0.105*****	0.783
I am willing to purchase products attached to fashion consciousness	0.407	0.735
I can pay high price for ethical products as an indicator of good quality	0.602	0.713
I consider health benefits	0.643	0.717
I am willing to purchase products attached to high ethical value	0.478	0.726
I can pay more for products to uphold integrity	0.581	0.717
I am willing to pay more if income increases	0.354	0.740
Reliability 0.753, based on standardized items 0.767		
Notes: Item deleted ***** Corrected Item-Total Correlation < 0.30, Cronbach's Alpha > 0.70, N = 98, CI-TC = Corrected Item-Total Correlation, CAID = Cronbach's Alpha if Item Deleted		

Source: Survey Data (2015)

4.4.5 Reliability Analysis for Corporate Sustainability

Reliability analysis results revealed that all the items in the corporate sustainability construct recorded Cronbach's alpha reliability coefficient of 0.943 and a standardized item alpha of 0.948. In short, all the dimensions in the construct had exceeded the recommended threshold value of 0.70 for Cronbach's alpha coefficient hence each dimension of corporate sustainability had sufficient internal consistency. Based on the criterion of 0.30 as an acceptable corrected item–total correlation lower bound, all the items made the threshold and were used for further analysis as shown in Table 4.13.

Table 4.13: Reliability Analysis for Corporate Sustainability

Variables	CI-TC	CAID
Corporate sustainability (15 items)		
Firm attain high profits	0.632	0.941
Firm increase sales due to market expansion	0.669	0.940
Firm meets today's generation resource needs without compromising future generation needs	0.719	0.939
Firm gains prestige	0.713	0.939
Firm reputation is enhanced making it competitive in the market	0.724	0.939
Firm produce ethically products which consider consumer needs	0.783	0.938
Firm maintains stewardship of quality products throughout their lifecycle	0.665	0.940
Firm achieve morally accepted set standards	0.802	0.937
Firm create sustainable jobs to all stakeholders	0.648	0.941
Firm attains success of community development	0.809	0.936
Firm meet the legal requirements	0.422	0.950
Firm is effective due to controlled innovative internal business processes	0.849	0.936
Firm promotes learning and growth which is the driving force for success	0.797	0.937
Firm attains consumer loyalty	0.757	0.938
Firm retain employees	0.813	0.936
Reliability 0.943, based on standardized items 0.948		
Notes: Item deleted ***** Corrected Item-Total Correlation < 0.30, Cronbach's		

Alpha > 0.70, N = 98, CI-TC = Corrected Item-Total Correlation, CAID = Cronbach's Alpha if Item Deleted

Source: Survey Data (2015)

4.4.6 Validity Statistics of Independent, Moderator and Dependent Variables

When assessing validity, the two main items to be focused are discriminant and convergent validity. Convergent and discriminant validity indicators were used to check if the items applied really measured the construct that was suppose to measure and achieve construct validity. Convergent validity is an extent to which indicators of a specific construct converge or share a high proportion of variance in common (Hair *et al*., 2006). While discriminant validity is an extent to which a construct is truly distinct from other constructs (Hair *et al*., 2006). In this study to measure validity, Fornell and Larcker (1981) technique represents the best method to apply cited by (Farrell, 2009) which recommends threshold value of 0.50 (Hair *et al*., 1995).

Using this technique to assess validity as supported by Hair *et al*. (2006) the average variance extracted (AVE) estimate should be greater than the squared correlation estimates. The researcher needs to compare the AVE from each construct with the shared variance of correlation between the constructs. If the AVE for each construct is greater than its shared variance with any other construct, then validity is supported. In addition, Fornell and Larcker (1981) suggested that convergent validity and discriminant validity can be achieved when the square root of the AVE is greater than any of the correlation in the corresponding rows and columns.

However, if the correlation between the focal construct and another construct was greater than the square root of the AVE, those two constructs were not considered to be different enough from one another to be treated as unique variables (Fornell &

Larcker, 1981). The control variables, means, standard deviations, correlations among variables and the square roots of the AVE values are found along the diagonal in brackets as shown in Table 4.14. Discriminant validity and convergent validity were achieved for most of the constructs as square root of the AVE values were greater than any of the correlation in the corresponding rows and columns except correlation between environment reporting and corporate sustainability. The reason being ER involves disclosing environmental performance indicators which were precursors of CS. The values of AVE were obtained from Tables 4.17, 4.19, 4.21, 4.23 and 4.25.

Table 4.14: Controls, Variables, Means, Standard Deviations, Correlations and $\sqrt{\text{AVEs}}$

Controls	Variables	Mean	SD	CS	ER	EI	SEI	CO
				(0.85)				
Firm: Age , Size , Type & Sector	CS	5.466	0.153	1	(0.79)			
	ER	5.413	0.179	0.86**	1	(0.80)		
	EI	5.444	0.226	0.73**	0.63**	1	(0.84)	
	SEI	5.438	0.181	0.67**	0.57**	0.46**	1	(0.77)
	CO	5.426	0.402	0.48**	0.42**	0.31**	0.36**	1

****** Correlation is significant at 0.01 level, *****Correlation is significant at 0.05 level,
SD = Standard deviation, CS = Corporate sustainability, ER = Environmental reporting, EI = Environmental investment, SEI = Social environment initiative, CO = Consumer orientation and $\sqrt{\text{AVEs}}$ = (0.85, 0.79, 0.80, 0.84, 0.77)

Source: Survey Data (2015)

4.5 Factor Analysis of Environmental Corporate Social Responsibility, Consumer Orientation and Corporate Sustainability

Factor analysis (FA) is a significant instrument which is utilized in development, refinement, and evaluation of tests, scales and measures (Williams *et al*., 2010). FA reduces a large number of overlapping variables or factors into a smaller set. The study employed the Principal Components Analysis (PCA) in order to extract and understand the systematic interdependence among the set of variables measured by the current study. It also determines the variable items that could be excluded from

further analysis of the study. All the five composite scales were subsequently subjected to exploratory factor analysis using PCA extraction and rotated using Varimax rotation with Kaiser Normalization method. Only components with Eigen values greater than one were extracted according to Kaiser (1960) and items with loadings more than 0.6 explained (Nunnally, 1978).

Although the general rule of thumb was to accept those items with loadings over 0.7 according to Cepeda and Roldán (2004), factor loading not lower than 0.60 (Nunnally, 1978), factor loading of 0.50 and above (Hair *et al*., 2010) can be accepted; the study's established cut-off point was 0.60. Moreover, to provide construct validity evidence of self reporting scales according to Fornell and Larcker (1981), convergent validity and discriminant validity is established when the AVE from the measures of a construct (dimension) was superior to the 0.5 threshold. To obtain AVE Fornell and Larcker's (1981) formula was used thus: Average variance extracted = $(\sum Li^2) / [(\sum Li^2) + \sum Var (Ei)]$ where Li is standardized loadings and Ei is error variance calculated by 1- squared loadings of the observed variables.

In addition, FA involves scale testing according to Bagozzi and Yi (1988) composite reliability (CR) should exceed 0.60 but it should be greater than 0.7 for reliability to be considered acceptable (Fornell & Larcker, 1981) as the case in this study. Along with individual observed variable reliability, the CR was calculated using Fornell and Larcker's (1981) formula thus: Composite reliability = $(\sum Li)^2 / [(\sum Li)^2 + \sum Var (Ei)]$ where Li is standardized loadings and Ei is error variance calculated by 1- squared loadings of the observed variables. The results are shown in Table 4.17, 4.19, 4.21, 4.23 and 4.25 all loadings had AVE greater than 0.5 and CR greater than 0.7 demonstrating attainment of validity and CR respectively.

4.5.1 Test of Scale Factorability Adequacy

To check the adequacy of data for factorability, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity were used. The threshold according to Hair *et al*. (1995) as well as Tabachnick and Fidell (2001) KMO of 0.50 is considered suitable for factor analysis. However, Netemeyer *et al*. (2003) stated that a KMO correlation above 0.60 - 0.70 is considered adequate for analyzing the factor analysis output. It is clear that values are usually considered to be acceptable if greater than 0.6 according to Hair *et al*. (2006) and this was the threshold adopted for this study. Bartlett's test of Sphericity as per (Bartlett, 1950) should provide a chi-square output that must be significant with indication that the matrix was not an identity matrix and accordingly it should be significant ($p < 0.05$) for factor analysis to be suitable (Hair *et al*., 2006; Tabachnick & Fidell, 2001).

Results show reasonable factorability of items which provides an adequate basis for proceeding to an empirical examination of adequacy for factor analysis on both overall basis and for each variable. Environmental reporting was measured using nine items and from the results of Kaiser-Meyer-Okin measure of sampling adequacy test of (0.720) and Bartlett's test of sphericity (χ^2 (55) = 725.072, $p < 0.000$) indicated that data was accepted for factor analysis. Six items were proposed to measure environmental investment and results of Kaiser-Meyer-Okin measure of sampling adequacy test of (0.617) and Bartlett's test of sphericity (χ^2 (21) = 127.954, $p < 0.000$) indicated that data was accepted for factor analysis.

To measure social environment initiative eight items were proposed and results of Kaiser-Meyer-Okin measure of sampling adequacy test of (0.836) and Bartlett's test of sphericity (χ^2 (36) =895.171, $p < 0.000$) indicated that data was accepted for factor

analysis. Ten items were proposed to measure consumer orientation and results of Kaiser-Meyer-Okin measure of sampling adequacy test of (0.679) and Bartlett's test of sphericity (χ^2 (45) =621.383, p < 0.000) indicated that data was accepted for factor analysis. Corporate sustainability was measured using fifteen items and results of Kaiser-Meyer-Okin measure of sampling adequacy test of (0.912) and Bartlett's test of sphericity (χ^2 (105) = 1183.429, p < 0.000) indicated that data was accepted for factor analysis as displayed in Table 4.15.

Table 4.15: Test of Scale Factorability Adequacy

Scale (N=98)	ER	EI	SEI	CO	CS
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.720	0.617	0.836	0.679	0.912
Approx. Chi-Square	725.072	127.954	895.171	621.383	1183.429
Bartlett's Test of Sphericity	0.000**	0.000**	0.001**	0.000**	0.000**
Degree of freedom	df=55	df=21	df=36	df=45	df=105

Notes: KMO Threshold > 0.6, **Bartlett's Test of Sphericity significant p < 0.05, df = Degree of freedom, ER = Environmental reporting, EI = Environmental investment, SEI = Social environment initiative, CO = Consumer orientation and CS = Corporate sustainability

Source: survey data (2015)

4.5.2 Factor Analysis of Environmental Reporting

Environmental reporting was subjected to factor analysis and three components with Eigen values greater than 1 were extracted which cumulatively explained 73.733% of variance on environmental reporting as shown in Table 4.16.

Table 4.16: Total Variance Explained of Environmental Reporting

	Initial Eigen values			**Rotation Sums of Squared Loadings**		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.395	49.048	49.048	3.251	29.554	29.554
2	1.631	14.825	63.873	2.957	26.883	56.437
3	1.085	9.860	73.733	1.903	17.296	73.733
4	0.796	7.239	80.972			

Extraction Method: Principal Component Analysis.

When rotated using Varimax with Kaiser Normalization reveals that four items of the scale: “Firm has an accurate report on resource sustainability,” “Firm has a transparent report on eco-efficiency,” “Firm has a clear report on trade networks” and “Firm has an accurate report on employee development,” were loaded on the first factor renamed resources reporting explained 29.554% of the total variance.

In addition, four items: “Firm has a clear report on health and safety,” “Firm has s clear report on eco-design of products,” “Firm has a clear and an accurate report on eco- labeling” and “Firm reports are based on Global Reporting Initiative indicators” were loaded on factor two renamed social reporting which explained 26.883% of the total variance while “Firm has a clear report on community projects” was loaded on the third factor renamed community reporting which explained 17.296% of the total variance. All the items had loadings greater than threshold value of 0.60 and their CR exceeded the recommended 0.7 level (see Table 4.17). It was therefore concluded that environmental reporting can be measured by nine items and were used in subsequent multiple and hierarchical regression analysis.

Table 4.17: Rotated Factor Loadings of Environmental Reporting

Factors	**Loadings**	**AVE**	**Variance explained**
Environmental reporting	0.928*****	0.627	73.733
Resources reporting			29.554
Firm has an accurate report on resource sustainability	0.870		
Firm has a transparent report on eco-efficiency	0.633		
Firm has a clear report on trade networks	0.789		
Firm has an accurate report on employee development	0.894		

Social reporting		26.883
Firm has a clear report on health and safety	0.688	
Firm has a clear report on eco-design of products	0.672	
Firm has a clear and accurate report on eco-labeling	0.698	
Firm reports are based on Global Reporting Initiative indicators	0.795	
Community reporting		17.296
Firm has a clear report on community projects	0.848	
Kaiser-Meyer-Olkin	0.720	
Bartlett's Test of Sphericity	0.000 (χ^2 (55) = 725.072)	
Loading***** = Composite reliability		

Source: Survey Data (2015)

4.5.3 Factor Analysis of Environmental Investment

Factor analysis was performed on environmental investment. Three components were extracted with Eigen values greater than 1 and cumulatively explained 68.376% of the total variance as presented in Table 4.18.

Table 4.18: Total Variance Explained of Environmental Investment

	Initial Eigen values			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.437	34.817	34.817	1.953	27.897	27.897
2	1.303	18.620	53.437	1.463	20.898	48.794
3	1.046	14.939	68.376	1.371	19.582	68.376
4	0.740	10.567	78.943			

Extraction Method: Principal Component Analysis.

When rotated using Varimax with Kaiser Normalization revealed items: “Our firm maintains cleaner production to prevent global warming” and “Our firm assists community members to sell their fair trade label products at premium” were loaded on the first factor labeled product design accounting for 27.879% of the total variance. The second factor labeled efficiency was loaded with “Our firm protect environment through reduce, reuse and recycle” and “Our firm encourages biodiversity through conservation of land, water and energy” which explained 20.898% of the total variance.

Third factor labeled trade network was loaded with “Our firm encourages sustainability of natural resources” and “Our firm encourages fair trade network to link community farmers and green consumers” accounting for 19.582 % of the total variance. The resultant five items had loadings greater than 0.60 and CR exceeding 0.7 cut-off value. They were used in subsequent multiple and hierarchical regression

analysis to measure environmental investment. However, one item “Our firm maintains cleaner production to prevent global warming” was deleted from subsequent multiple hierarchical regression analysis as shown in Table 4.19.

Table 4.19: Rotated Factor Loadings of Environmental Investment

Factors	Loadings	AVE	Variance explained
Environmental investment	0.901*	0.633	68.376
Product design			27.879
Our firm maintain cleaner production to prevent global warming	0.576		
Our firm assist community members to sell their fair trade label products at premium	0.869		
Efficiency			20.898
Our firm encourages biodiversity through conservation of land, water and energy	0.786		
Our firm protect environment through reduce, reuse and recycle	0.836		
Trade network			19.582
Our firm encourages sustainability of natural resources	0.898		
Our firm encourage fair trade networks to link community farmers and green consumers	0.657		
Kaiser-Meyer-Olkin	0.617		
Bartlett's Test of Sphericity	0.000 (χ^2 (21) = 127.954)		

Loading***** = Composite reliability

Source: Survey Data (2015)

4.5.4 Factor Analysis of Social Environment Initiative

Same procedure was carried out on social environment initiative. When subjected to factor analysis with Eigen value greater than one only two components were extracted which cumulatively explained 75.086% of the total variance as displayed in Table 4.20.

Table 4.20: Social Environment Initiative Total Variance Explained

	Initial Eigen values			Rotation Sums of Squared Loadings		
Componen t	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.682	63.130	63.130	5.637	62.637	62.637
2	1.076	11.957	75.087	1.120	12.449	75.086
3	0.835	9.276	84.363			

Extraction Method: Principal Component Analysis.

Moreover, when rotated using Varimax with Kaiser Normalization seven items loaded heavily on the first factor renamed social development this explained 62.637% of the total variance. The items include: “Firm intention to attain average wage rates and benefits to employees,” “Firm encourages development of employees,” “Firm avoid any form of employment discrimination,” “Firm ensures work life balance among employees,” “Firm actively involves in community social project(s),” “Firm donations to empower individuals within the community” and “Firm intention to motivate employees.” Factor two renamed health and safety was heavily loaded with one item “Firm intention to uphold occupational health and safety of all employees,” which explained 12.449% of the total variance. All the items met loading threshold of 0.60 and their CR exceeded the recommended 0.7 level. They were used in subsequent multiple and hierarchical regression analysis without deletion of any item

(see Table 4.21). It meant that social environment initiative was measured by eight items.

Table 4.21: Rotated Factor Loadings of Social Environment Initiative

Factors	**Loadings**	**AVE**	**Variance explained**
Social environment initiative	0.951*	0.710	75.086
Social development			62.637
Firm intention is to attain average wage rates and benefits to employees	0.837		
Firm encourages development of employees	0.871		
Firm avoid any form of employment discrimination	0.712		
Firm ensures work life balance among employees	0.884		
Firm actively involves in community social project(s)	0.914		
Firm donations to empower individuals within the community	0.867		
Firm intention is to motivate employees	0.776		
Health and safety			12.449
Firm intention is to uphold occupational health and safety of all employees	0.860		
Kaiser-Meyer-Olkin 0.836			
Bartlett's Test of Sphericity 0.000 (χ^2 (36) =895.171)			
Loading***** = Composite reliability			

Source: Survey Data (2015)

4.5.5 Factor Analysis of Consumer Orientation

Factor analysis was performed on consumer orientation scale with ten items. When subjected to extraction criterion of Eigen value greater than 1 and rotated using Varimax with Kaiser Normalization three components were extracted cumulatively explaining 73.205% of the total variance as presented in Table 4.22.

Table 4.22: Total Variance Explained of Consumer Orientation

	Initial Eigen values			Extraction Sums of Squared Loadings		
Componen t	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.126	41.259	41.259	4.126	41.259	41.259
2	1.972	19.720	60.979	1.972	19.720	60.979
3	1.223	12.225	73.204	1.223	12.225	73.205
4	0.854	8.536	81.740			

Extraction Method: Principal Component Analysis.

The first factor renamed cynical and disinterested was found to explain 41.259% of the total variance loaded with the following items: “I am willing to buy products from a firm which ensures intergenerational resource equity,” “I consider firm’s ethical behaviour as a factor when buying products,” “I am willing to purchase products if culture allows,” “I am willing to purchase products attached to fashion consciousness,” “I can pay more for products to uphold integrity,” “I can pay high price for ethical products as an indicator of good quality” and “I consider health benefits.”

Second factor renamed confused and uncertain was found to explain19.720% of the total variance loaded with the following items: “I am willing to purchase products attached to high ethical value,” and “I am willing to pay more if income increases.”

Lastly the third factor renamed caring and ethical had one item “I am sure this firm is ethical” loaded on it which explained 12.225% of the total variance. It was revealed that nine items had loadings greater than 0.60 cut-off value and their CR exceeded the recommended 0.7 cut-off value. They were subjected to subsequent multiple and hierarchical regression analysis as shown in Table 4.23. Item “I am willing to purchase products attached to fashion consciousness” was deleted from subsequent multiple and hierarchical regression analysis. It was therefore concluded that consumer orientation can be measured by nine items.

Table 4.23: Rotated Factor Loadings of Consumer Orientation

Factors	**Loadings**	**AVE**	**Variance explained**
Consumer orientation	0.966*	0.6002	73.205
Cynical and disinterest			41.259
I am willing to buy products from a firm which ensures intergenerational resource equity	0.804		
I consider firm’s ethical behaviour when buying products	0.674		
I am willing to purchase products if culture allows	0.791		
I am willing to purchase products attached to fashion consciousness	0.530		
I can pay more for products to uphold integrity	0.637		
I can pay high price for ethical products as an indicator of good quality	0.802		
I consider health benefits	0.746		
Confused and uncertain			19.720
I am willing to purchase products attached to high ethical value	0.664		
I am willing to pay more if income increases	0.738		
Caring and ethical			12.225
I am sure this firm is ethical	0.816		
Kaiser-Meyer-Olkin	0.679		
Bartlett's Test of Sphericity	0.000 (χ^2 (45) =621.383)		

Loading***** = Composite reliability

Source: Survey Data (2015)

4.5.6 Factor Analysis of Corporate Sustainability

Corporate sustainability scale was subjected to factor analysis and two components with Eigen value greater than 1 were extracted which cumulatively explained 66.475% of the total variance as shown in Table 4.24.

Table 4.24: Total Variance Explained of Corporate Sustainability

	Initial Eigen values			Rotation Sums of Squared Loadings		
Componen t	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.843	58.954	58.954	5.840	38.934	38.934
2	1.128	7.521	66.475	4.131	27.541	66.475
3	0.976	6.504	72.979			

Extraction Method: Principal Component Analysis.

When rotated using Varimax with Kaiser Normalization, ten items were loaded on the first factor labeled social responsiveness which explained 38.934% of the total variance. The items include: “Firm gains prestige,” “Firm reputation is enhanced making it competitive in the market,” “Firm produce ethically products which consider consumer needs,” “Firm create sustainable jobs to all stakeholders,” “Firm attains success of community development,” “Firm meet the legal requirements,” “Firm is effective due to controlled innovative internal business processes,” “Firm promotes learning and growth,” “Firm attains consumer loyalty” and “Firm retains employees.”

Factor two labeled economic growth was loaded with five items which cumulatively explained 27.541% of the total variance and the items include: “Firm attains high profits,” “Firm increases sales due to market expansion,” “Firm meets today’s generation without compromising future needs,” “Firm maintains stewardship of quality products throughout their lifecycle” and “Firm achieve morally accepted set standards.” However, after elimination of items which had loadings less than 0.60 threshold value, twelve items were left which were used in subsequent multiple and hierarchical regression analysis (See table 4.25). It meant that corporate sustainability was measured by twelve items with CR greater than 0.70 cut-off value. The three items “Firm gains prestige,” “Firm meet the legal requirements” and “Firm achieve morally accepted set standards” were deleted from subsequent multiple hierarchical regression analysis.

Table 4.25: Rotated Factor Loadings of Corporate Sustainability

Factors	**Loadings**	**AVE**	**Variance explained**
Corporate sustainability	0.944*****	0.5249	66.475
Social responsiveness			38.934
Firm gains prestige	0.596		
Firm reputation is enhanced making it competitive in the market	0.610		

Firm produce ethically products which consider consumer needs	0.682	
Firm create sustainable jobs to all stakeholders	0.681	
Firm attains success of community development	0.712	
Firm meet the legal requirements	0.409	
Firm is effective due to controlled innovative internal business processes	0.823	
Firm promotes learning and growth	0.746	
Firm attains consumer loyalty	0.864	
Firm retain employees	0.878	
Economic growth		27.541
Firm attain high profits	0.827	
Firm increase sales due to market expansion	0.801	
Firm meet today's generation resource needs without compromising future needs	0.764	
Firm maintains stewardship of quality products throughout their lifecycle	0.702	
Firm achieve morally accepted set standards	0.599	
Kaiser-Meyer-Olkin	0.912	
Bartlett's Test of Sphericity	0.000 (χ^2 (105) = 1183.429)	
Loading***** = Composite reliability		

Source: Survey Data (2015)

4.6 Test of Regression Assumptions

Before testing regression assumption, univariate and multivariate assessment of outliers was done across all the cases. All the cases had Mahalanobis D^2 scores less than critical value of chi-square (χ^2) 18.467 obtained from the table. Further, subjection to probability for the Mahalanobis D^2 all had values more than 0.001 confirming that there was no outlier. A value of D^2 with low p value (< 0.001) was used as the criteria to reject the assumption that the case came from the same population as the rest (Hair *et al*., 1998). Following the assessment of outliers, the data set was tested for fundamental regression assumptions.

In order to proceed with multiple and hierarchical regression sample data was first examined to ensure robust results. In similar vein, Hair *et al*. (1998) stated that meeting the assumptions of regression analysis is essential to ensure that the results obtained were truly representative of the sample so as to obtain the best results possible. The key assumptions to be tested were normality, linearity, multicollinearity and homoscedasticity (Hai *et al*., 1998; Ghozali, 2005). After meeting key assumptions, this study confidently used the existing sample data to test the hypotheses as explained below.

4.6.1 Level of Measurement

Multiple and hierarchical regression requires that the dependent variable be metric and the independent variables be metric or dichotomous. For this study corporate sustainability which was treated as dependent variables was ordinal, satisfying the metric level of measurement requirement for the dependent variable. Control variables were interval. Environmental corporate social responsibility and consumer orientation were ordinal, satisfying the metric or dichotomous level of measurement requirement for independent variables. The ratio of participants to independent variables should be at least 5:1 and ideally 20:1. If the stepwise method is used, the ratio should be 40:1. This is due to the possibility that with small sample sizes, this method can produce results which do not generalize to other samples (Tabachnick & Fidell, 1996).The ratio obtained in this study was 133: 1 which was above 40:1.

4.6.2 Assumption of Normality

Normality of the distribution was assessed using statistical method. Kolmogorov-Simonov test and Shapiro Wilk was used to test normality of the data because it can handle sample sizes as large as 2000. According to Ghozali (2005), normality can be

detected by looking at the p-value of Kolmogorov-Smirnov test. If p-value is greater than the 5% significance level, the residuals are considered as normally distributed. The test statistics of the five variables are shown in Table 4.26 where Kolmogorov-Smirnov and Shapiro Wilk test performed showed that the p-values range from 0.061 – 0.374 which were greater than 0.05. The normality assumption of the regression model was therefore met.

Table 4.26: Test of Normality of Dependent, Moderator and Independent Variables

	Kolmogorov-Smirnov (KS) test			**Shapiro-Wilk**		
Constructs	Statistic	df	Sig.	Statistic	df	Sig.
Environmental reporting	0.243	98	0.061	0.849	98	0.087
Environmental investment	0.136	98	0.142	0.912	98	0.091
Social environment initiative	0.158	98	0.067	0.887	98	0.070
Consumer orientation	0.153	98	0.112	0.918	98	0.314
Corporate sustainability	0.206	98	0.131	0.853	98	0.374
a Lilliefors Significance Correction, Shapiro-Wilk significant at p > 0.05						

Source: Survey Data (2015)

4.6.3 Linearity

This means that the mean values of the outcome variable for each increment of the predictor(s) lie along a straight line. Thus, Correlation analysis can be used to assess association between predictor and criterion. Table 4.27 indicates that there is negative association among control variables, predictor variables and criterion. However, when the effects of control variables are eliminated, Table 4.28 shows that there is positive association among the variables and the values are not greater than 0.9. According to Tabachnick and Fidell (1996) independent variables should not be very highly

correlated (r > 0.90) or perfectly correlated (r = 1) to avoid multicollinearity which in this study showed that multicollinearity was not a problem. To check linearity and get a visual idea matrix scatterplots was plotted as shown in Appendix 8 which was linear. It meant that corporate sustainability changed by a constant amount every time independent variables: environmental reporting, environmental investment, social environment initiative and their interaction with consumer orientation increased by one unit when other factors were held constant.

4.6.4 Multicollinearity

This term is used to describe the intercorrelations or interassociations among the independent variables. Multicollinearity occurs when more than two independent variables are highly correlated (Cooper & Schindler, 2006). Multicollinearity can be detected with the help of tolerance and its reciprocal variance inflation factor (VIF). Tolerance should be above 0.20 (Menard, 1995) and this was the cut-off value for this study. It is clear that serious multicollinearity occurs when the value of tolerance is smaller than 0.10 and the value of VIF is greater than 10 (Ghozali, 2005). Admittedly, all the variables used in multiple and hierarchical regressions had the tolerance values of above 0.20 showing multicollinearity was not a problem in this study as indicated in Tables 4.31, 4.34 and 4.37 respectively.

4.6.5 Homoscedasticity

At each level of the predictor variable(s), the variance of the residual terms should be constant to attain homoscedastic. This just means that the residuals at each level of the predictor(s) should have the same variance and independent.The Durbin-Watson statistics was used to test the presence of serial correlation among the residuals. The value of the Durbin-Watson statistic ranges from 0 to 4 and as a rule of thumb, the

residuals are not correlated if the Durbin-Watson statistic is approximately 2 and an acceptable range is 1.50-2.50 (Hair *et al*., 2006).

However, exact acceptable values in Durbin and Watson's (1951) original paper as a very conservative rule of thumb, values less than 1 or greater than 3 are definitely cause for concern. Value greater than 2 indicates a negative correlation between adjacent residuals; where as a value below 2 indicates a positive correlation. It also depends upon the number of predictors in the model and the number of observations. The Durbin-Watson statistic for this regression was 1.889 as shown in Table 4.35. This falls within the acceptable range indicating that the residuals were positive and not correlated.

4.7 Correlation Analysis

Correlation analysis was carried out to test the theoretical proposition regarding relationships among the variables before controlling firm age, firm size, type of ownership and industry sector. The correlation matrix indicated that there was positive significant correlation between environmental reporting and corporate sustainability ($r = 0.88$, $P < 0.01$). The correlation of environment investment and corporate sustainability was positively significant ($r = 0.80$, $P < 0.01$). The correlation of social environment initiative and corporate sustainability was positively significant ($r = 0.67$, $P < 0.01$) also the correlation of moderator consumer orientation and corporate sustainability was positively significant ($r = 0.50$, $P < 0.01$). The three control variables: firm age, firm size and type of ownership were negatively correlated and insignificant while industry sector was positively correlated to corporate sustainability but insignificant as displayed in Table 4.27.

Table 4.27: Correlation of Control, Dependent, Moderator and Independent Variables

Variables	CS	Age	Size	Type	Sector	ER	EI	SEI	CO
Corporate Sustainability	1								
Age	-0.01	1							
Size	-0.01	0.34**	1						
Type	-0.05	0.42**	0.31**	1					
Sector	0.05	-0.83**	-0.40**	-0.57**	1				
ER	0.88**	-0.10	-0.06	-0.14	0.12	1			
EI	0.80**	-0.02	0.02	-0.01	0.05	0.82**	1		
SEI	0.67**	0.08	0.05	0.15	-0.08	0.59**	0.51**	1	
CO	0.50**	-0.06	-0.14	-0.18	0.14	0.44**	0.40**	0.39**	1

Notes: ****** Correlation is significant at 0.01 level, ***** Correlation is significant at 0.05 level

ER = Environmental reporting, EI = Environmental investment, SEI = Social environment initiative, CO = Consumer orientation and CS= Corporate sustainability.

Source: Survey Data (2015)

Beside controlling firm age, firm size, type of ownership and industry sector, the three independent variables and consumer orientation were positively correlated to corporate sustainability. There was positive significant correlation between environmental reporting and corporate sustainability ($r = 0.86$, $P < 0.01$). The correlation of environment investment and corporate sustainability was positively significant ($r = 0.73$, $P < 0.01$). The correlation of social environment initiative and corporate sustainability was positively significant ($r = 0.67$, $P < 0.01$). While the correlation of moderator consumer orientation and corporate sustainability was positively significant ($r = 0.48$, $P < 0.01$) as shown in Table 4.28.

Table 4.28: Correlation of Dependent, Moderator and Independent Variables

Controls	**Variables**		**Y**	**X_1**	**X_2**	**X_3**	**M**
Firm:	Corporate sustainability	(Y)	1				
Age,	Environmental reporting	(X_1)	0.86**	1			
	Environmental investment	(X_2)	0.73**	0.63**	1		
Size ,	Social environment initiative	(X_3)	0.67**	0.56**	0.46**	1	

Type & sector	Consumer orientation	(M)	0.48**	0.42**	0.31**	0.36**	1

Notes:****** Correlation is significant at 0.01 level, ***** Correlation is significant at 0.05 level

Source: Survey Data (2015)

4.8 Regression Analysis and Hypotheses Testing

Both multiple and hierarchical regressions were conducted to test hypotheses of the study. Six hierarchical regression steps were carried out to evaluate the relationship of independent variables, moderator and dependent variable according to Baron and Kenny (1986) suggestions. In addition, the three independent variables were interacted with moderator while controlling the impact of the firm age, firm size, type of ownership and industry sector. The study followed the suggestions given by Aiken and West (1991) to standardize all the predictor variables to reduce multicollinearity problem that arises when a moderator variable is computed as a product of two predictor variables. To avoid multicoilinearity risk created by generating a new variable through multiplying two existing variable, interacted variables were converted to Z scores with mean of zero and standard deviation of one. The interaction variables were therefore created by multiplying the standardized variables together.

Durbin-Watson statistics was used to test the presence of serial correlation among the residuals, the assumption of independence of errors which required that the residuals or errors in prediction do not follow a pattern from case to case. The Durbin-Watson statistic for regression falls within the acceptable range of 1.50-2.50 (Hair *et al*., 1998) which indicated that the residuals were not correlated. In addition, collinearity was checked to ensure there were no high intercorrelations among predictor variables. Hence tolerance statistics were used to estimate whether some of the independent

variables had very high correlations with other independent variables to form multicollinearity.

This means tolerance is the proportion of an independent variable's variance not accounted for by the other independent variables. High tolerance value indicates that there was no problem of multicollinearity with a maximum possible value being 1. Inverse of tolerance represents Variance Inflation Factor (VIF) and high value of more than 10 indicates multicollinearity. According to Kennedy (1992) most researchers usually consider values below 0.1 to indicate serious problems of Multicollinearity. Moreover, Menard (1995) suggested that values below 0.2 are worthy of concern and this was adopted threshold for this study.

To compare the different variables it is important that standardized coefficients are considered. Standardized coefficients mean that beta values for each of the different variables have been converted to the same scale so that they can be compared. Standardized beta regression coefficients range from +1 to -1 and the higher the regression coefficient (in absolute terms), the better the prediction of the dependent variable. It logically follows that if a variable significantly predicts an outcome, then it should have a β value significantly different from zero.

Model summary provides not only statistical test of the model's ability to account for variance, but also the value of R or the corresponding R^2 and the adjusted R^2 which indicates whether the model is generalizable. R^2 tells the proportion of variance explained by the model. Hierarchical regression assesses the improvement of the model at each stage of the analysis by looking at the change in R^2. In this study the R^2 change was increasing as shown in Table 4.29.

Table 4.29: Model Summary of ECSR and CO Predicting CS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.066[a]	.004	-.038	1.019	.004	.103	4	93	.981	2.141
2	.915[b]	.836	.824	.420	.832	152.501	3	90	.000	2.162
3	.920[c]	.847	.833	.408	.011	6.162	1	89	.015	2.156
4	.923[d]	.852	.837	.403	.005	6.689	1	88	.000	2.125
5	.934[e]	.872	.858	.377	.020	13.634	1	87	.000	1.907
6	.937[f]	.878	.862	.371	.006	3.758	1	86	.056	1.889

Notes: a. Predictors: (Constant), Zscore(Fage)=Zscore firm age, Zscore(Fsize)= Zscore firm size, Zscore(Fowner)= Zscore firm type of ownership, Zscore(Fsector)= Zscore firm sector, Zscore(MER)= Zscore environment reporting, Zscore(MEI)= Zscore environmental investment, Zscore(MSEI)= Zscore social environment initiative, Zscore(MCO)= Zscore consumer orientation, Z (MCO* MER) = Z score consumer orientation * Z score environmental reporting, Z (MCO* MEI) = Z score consumer orientation * Z score environmental investment, Z(MCO* MSEI)= Z score consumer orientation* Z score social environment initiative.

b. Dependent Variable: Zscore(MCS)= Zscore corporate sustainability.

Source: Survey Data (2015)

ANOVA assesses whether the model, overall and results are significantly good degree of prediction of the outcome variable than using the mean as a 'best guess'. Specifically, the F-ratio represents the ratio of the improvement in prediction that results from fitting the models to the data overall. The six hierarchical models were significantly better at predicting the change in corporate sustainability as shown in Table 4.30.

Table 4.30: ANOVA Model of ECSR and CO Predicting CS

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.429	4	.107	.103	.981[b]
	Residual	96.571	93	1.038		
	Total	97.000	97			
2	Regression	81.125	7	11.589	65.705	.000[c]
	Residual	15.875	90	.176		

	Total	97.000	97			
3	Regression	82.153	8	10.269	61.560	.000[d]
	Residual	14.847	89	.167		
	Total	97.000	97			
4	Regression	82.691	9	9.188	56.506	.000[e]
	Residual	14.309	88	.163		
	Total	97.000	97			
5	Regression	84.630	10	8.463	59.520	.000[f]
	Residual	12.370	87	.142		
	Total	97.000	97			
6	Regression	85.148	11	7.741	56.166	.000[g]
	Residual	11.852	86	.138		
	Total	97.000	97			

Notes: a. Dependent Variable: Zscore(MCS)= Zscore corporate sustainability
b. Predictors: (Constant), Zscore(Fsector), Zscore(Fsize), Zscore(Fowner), Zscore(Fage), Zscore(MEI), Zscore(MSEI), Zscore(MER), Zscore(MCO), Zscore(MCO* MER), Zscore(MCO* MEI) and Zscore (MCO* MSEI).

Source: Survey Data (2015)

4.8.1 Effect of Control Variables on Corporate Sustainability

To find the direct effect of control variables, independent variables and moderator on dependent variable multiple hierarchical regression was carried out. In step 1 the four control variables of the firm age, firm size, type of ownership and industry sector were entered in model 1. The regression results indicated that firm age (β= 0.083, t = 0.450, P > 0.05), firm size (β= 0.024, t = 0.212, P >0.05), type of ownership (β = -0.022, t = - 0.171, P > 0.05) and industry sector (β = 0.102, t = 0.496, P > 0.05) were not statistically significant predictors of corporate sustainability.The results of the model summary indicated that the four control variables explained only 0.4% (R^2 = 0.004) of the variance on corporate sustainability with Δ R^2 = 0.004, ΔF(4, 93) = 0.103, P = 0.981 was not statistically significant .

ANOVA model results of the controls indicated poor model fit as illustrated by overall test of significance, F (4, 93) = 0.103, P = 0.981 was statistically insignificant. The Durbin-Watson statistic for this regression was 2.141 and falls within the acceptable

range which indicated that the residuals were not correlated. Being appropriate control variables, there was the need to control as they were crucial in obtaining reliable results in this study. The four control variables had tolerance values of above 0.2 and VIF of less than 10 hence multicollinearity was not a problem in this regression as shown in Table 4.31.

Table 4.31: Regression Coefficients of Control Variables

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model 1	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	1.517	.103		.000	1.000		
Zscore(Fage)	.083	.185	.083	.450	.653	.312	3.202
Zscore(Fsize)	.024	.113	.024	.212	.833	.832	1.202
Zscore(Fowner)	-.022	.127	-.022	-.171	.865	.663	1.509
Zscore(Fsector)	.102	.206	.102	.496	.621	.253	3.952

a. Dependent Variable: Corporate Sustainability

Notes: VIF = Variance Inflected Factor, Zscore (Fage) =Zscore firm age, Zscore (Fsize) = Zscore firm size, Zscore (Fowner) = Zscore firm type of ownership and Zscore (Fsector) = Zscore firm sector.

Source: Survey Data (2015)

4.8.2 Effect of Environmental Corporate Social Responsibility on Corporate Sustainability

In step two controlling for firm age, firm size, type of ownership and industry sector the introduced three independent variables explained only 83.6% ($R^2 = 0.836$) of the variance on corporate sustainability which contributed an additional $\Delta R^2 = 0.832$, $\Delta F(7, 90) = 152.501$, $P = 0.000$ were statistically highly significant. ANOVA model results as indicated in model 2 showed good model fit as illustrated by overall test of significance, $F (7, 90) = 65.705$, $P = 0.00$ was statistically highly significant .Thus, the model was fit to predict corporate sustainability using environmental reporting, environmental investment and social environment initiative.

The regression coefficients for environmental reporting on corporate sustainability ($\beta = 0.575$, $t = 9.248$, $P < 0.05$), environmental investment on corporate sustainability ($\beta = 0.264$, $t = 4.660$, $P < 0.05$) and social environment initiative on corporate sustainability ($\beta = 0. 221$, $t = 4.139$, $P < 0.05$) were statistically highly significant. In the absence of control variables environmental reporting, environmental investment and social environment initiative were significant predictors of corporate sustainability.

Hypothesis H_{01} predicted that there was no significant effect of environmental reporting on corporate sustainability. The results led to rejection of the hypothesis H_{01} suggesting that there was positive and significant relationship between environmental reporting and corporate sustainability.

Hypothesis H_{02} postulated that there was no significant effect of environmental investment on corporate sustainability. The results led to rejection of the hypothesis

H_{02} suggesting that there was positive and significant relationship between environmental investment and corporate sustainability.

Hypothesis H_{03} indicated that there was no significant effect of social environment initiative on corporate sustainability. The results led to rejection of the hypothesis H_{03} suggesting that there was positive and significant relationship between social environment initiative and corporate sustainability.

In this study the results met the criteria of introducing moderator. Since moderator variable can be considered when the relationship between a predictor variable and a dependent variable is strong, but most often it is considered when there is an unexpectedly weak or inconsistent relationship between a predictor and a dependent variable (Holmbeck, 1997). The three variables had tolerance values of above 0.2 and VIF of less than 10 therefore multicollinearity was not a problem in this hierarchical regression. The Durbin-Watson statistic for this regression was 2.162 and falls within the acceptable range which indicated that the residuals were not correlated as indicated in Table 4.32.

Table 4.32: Regression Results of ECSR Predicting CS

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model 2	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	3.283	.042		.000	1.000		
Zscore(Fage)	.037	.078	.037	.473	.637	.303	3.306
Zscore(Fsize)	.033	.047	.033	.711	.479	.827	1.210
Zscore(Fowner)	.054	.053	.054	1.023	.309	.650	1.539
Zscore(Fsector)	.070	.086	.070	.819	.415	.248	4.026
Zscore(MER)	.575	.062	.575	9.248	.000	.471	2.122
Zscore(MEI)	.264	.057	.264	4.660	.000	.567	1.765
Zscore(MSEI)	.221	.053	.221	4.139	.000	.636	1.573

a. Dependent Variable: Corporate Sustainability

Notes: (Constant), Zscore(Fsector), Zscore(Fsize), Zscore(Fowner), Zscore(Fage), Zscore(MEI), Zscore(MSEI) and Zscore(MER).

Source: Survey Data (2015)

4.8.3 Effect of Consumer Orientation on Corporate Sustainability

Introduced consumer orientation in model 3 explained only 84.7% ($R^2 = 0.847$) of the variance on corporate sustainability which contributed an addition $\Delta R^2 = 0.011$, ΔF (8, 89) = 6.162, P = 0.015 which was statistically significant. ANOVA model results indicated good model fit as illustrated by overall test of significance, F (8, 89) = 61.560, P = 0.00 was statistically highly significant .Thus; the model was fit to predict corporate sustainability using consumer orientation.

The regression coefficients for environmental reporting on corporate sustainability (β = 0.546, t = 8.873, P < 0.05), environmental investment on corporate sustainability (β = 0.257, t = 4.655, P < 0.05), social environment initiative on corporate sustainability (β = 0. 198, t = 3.756, P < 0.05) and consumer orientation on corporate sustainability (β = 0. 117, t = 2.482, P < 0.05) were statistically highly significant.

Hypothesis H_{O4} postulated that there was no significant effect of consumer orientation on corporate sustainability. The results led to rejection of the hypothesis H_{04} suggesting that there was positive and significant relationship between consumer orientation and corporate sustainability.

This confirmed that consumer orientation was a moderator and it could change causal relationship between environmental corporate social responsibility and corporate sustainability. Durbin-Watson statistic for this regression was 2.156 and falls within the acceptable range which indicated that the residuals were not correlated. The moderator had tolerance values of above 0.2 and VIF of less than 10 therefore

multicollinearity was not a problem in this hierarchical regression as shown in Table 4.33.

Table 4.33: Regression Results of Consumer Orientation on Corporate Sustainability

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model 3	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	2.649	.041		.000	1.000		
Zscore(Fage)	.039	.075	.039	.520	.605	.302	3.306
Zscore(Fsize)	.046	.046	.046	1.003	.318	.816	1.225
Zscore(Fowner)	.064	.052	.064	1.244	.217	.646	1.548
Zscore(Fsector)	.071	.083	.071	.852	.397	.248	4.027
Zscore(MER)	.546	.062	.546	8.873	.000	.455	2.200
Zscore(MEI)	.257	.055	.257	4.655	.000	.565	1.770
Zscore(MSEI)	.198	.053	.198	3.756	.000	.616	1.623
Zscore(MCO)	.117	.047	.117	2.482	.015	.778	1.286

Notes: Zscore(MCO)= Zscore consumer orientation

Source: Survey Data (2015)

4.8.4 Moderated Regression Results

A moderator effect could increase the effect of the exogenous on the endogenous variable called enhancing moderator, decrease the effect of the exogenous on the endogenous variable called buffering moderator or reverse the effect of the exogenous variable on the endogenous variable called antagonistic moderation (Aiken & West, 1991). Moderation exist if the following conditions holds: the amount of variance accounted for, with interaction should be significantly more than the variance accounted for without the interaction, interaction term should be different from zero and the overall models with and without the interaction should be significant(Hayes, 2013).

4.8.5 Moderating Effect of Consumer Orientation on the Relationship between Environmental Reporting and Corporate Sustainability

As earlier mentioned research hypotheses that include interaction effects should be mean centered (Aiken & West, 1991). Mean centering is standardizing and converting variables to be interacted into Z scores with mean of zero and standard deviation of one. Introduced interaction of consumer orientation and environmental reporting in model 4 explained only 85.2% ($R^2 = 0.852$) of the variance on corporate sustainability which contributed an additional $\Delta R^2 = 0.005$, $\Delta F (9, 88) = 6.689$, $P = 0.000$ which was statistically significant. ANOVA model results showed good model fit as illustrated by overall test of significance, $F (9, 88) = 56.506$, $P = 0.00$ was statistically highly significant. Thus, the model was fit to predict corporate sustainability using interaction between consumer orientation and environmental reporting.

The regression coefficients for environmental reporting on corporate sustainability ($\beta = 0.544$, $t = 8.961$, $P < 0.05$), environmental investment on corporate sustainability ($\beta = 0.264$, $t = 4.831$, $P < 0.05$), social environment initiative on corporate sustainability ($\beta = 0.191$, $t = 3.641$, $P < 0.05$), consumer orientation on corporate sustainability ($\beta = 0.121$, $t = 2.598$, $P < 0.05$) and interaction between consumer orientation and environmental reporting($\beta = 0.662$, $t = 13.416$, $P < 0.05$) were statistically highly significant.

Hypothesis H_{05a} stated that consumer orientation does not moderate the relationship between environmental reporting and corporate sustainability. The results led to rejection of the hypothesis H_{05a} suggesting consumer orientation moderated the effect of environmental reporting on corporate sustainability. This confirmed that consumer orientation enhanced the effect of environmental reporting on corporate sustainability.

Durbin-Watson statistic for this regression was 2.125 and falls within the acceptable range which indicated that the residuals were not correlated. The two variables had tolerance values of above 0.2 and VIF of less than 10 therefore multicollinearity was not a problem in this regression as presented in Table 4.34.

Table 4.34: Regression Coefficients of Interaction between CO and ER Predicting CS

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model 4	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	.028	.044		.641	.523		
Zscore(Fage)	.027	.075	.027	.361	.719	.300	3.333
Zscore(Fsize)	.047	.045	.047	1.042	.300	.816	1.225
Zscore(Fowner)	.059	.051	.059	1.156	.251	.644	1.553
Zscore(Fsector)	.059	.082	.059	.718	.475	.247	4.051
Zscore(MER)	.544	.061	.544	8.961	.000	.454	2.200
Zscore(MEI)	.264	.055	.264	4.831	.000	.562	1.778
Zscore(MSEI)	.191	.052	.191	3.641	.000	.612	1.634
Zscore(MCO)	.121	.046	.121	2.598	.011	.776	1.289
Z(MCO* MER)	.662	.049	.662	13.416	.000	.976	1.025

Notes: Z (MCO* MER) = Z score consumer orientation * Z score environmental reporting

Source: Survey Data (2015)

4.8.6 Moderating Effect of Consumer Orientation on the Relationship between Environmental Investment and Corporate Sustainability

Introduced interaction of consumer orientation and environmental investment in model 5 explained only 87.2% ($R^2 = 0.872$) of the variance on corporate sustainability which contributed an additional $\Delta R^2 = 0.020$, ΔF (10, 87) = 13.634, P = 0.000 which was statistically significant. ANOVA model results indicated good model fit as illustrated by overall test of significance, F (10, 87) = 59.520, P = 0.00 was statistically highly significant. Thus, the model was fit to predict corporate sustainability using interaction between consumer orientation and environmental investment.

The regression coefficients for environmental reporting on corporate sustainability ($\beta = 0.494$, $t = 8.463$, $P < 0.05$), environmental investment on corporate sustainability (β

= 0.306, t = 5.850, P < 0.05), social environment initiative on corporate sustainability (β = 0. 167, t = 3.390, P < 0.05), consumer orientation on corporate sustainability (β = 0. 182, t = 3.909, P < 0.05), interaction between consumer orientation and environmental reporting(β = - 0. 311, t = - 4.173, P < 0.05) and interaction between consumer orientation and environmental investment (β = 0. 251, t = 3.692, P < 0.05) were statistically highly significant.

Hypothesis H_{05b} indicated that consumer orientation does not moderate the relationship between environmental investment and corporate sustainability. The results led to rejection of the hypothesis H_{05b} suggesting consumer orientation moderated the effect of environmental investment on corporate sustainability.This confirmed that consumer orientation enhanced the effect of environmental investment on corporate sustainability. Durbin-Watson statistic for this regression was 1.907 and falls within the acceptable range which indicated that the residuals were not correlated. The two variables had tolerance values of above 0.2 and VIF of less than 10 therefore multicollinearity was not a problem in this regression as indicated in Table 4.35.

Table 4.35: Regression Coefficients of Interaction between CO and EI Predicting CS

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model 5	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	.053	.041		1.278	.205		
Zscore(Fage)	.024	.070	.024	.343	.732	.300	3.334
Zscore(Fsize)	.048	.042	.048	1.121	.265	.816	1.225
Zscore(Fowner)	.047	.048	.047	.981	.329	.641	1.560
Zscore(Fsector)	.051	.077	.051	.657	.513	.247	4.055
Zscore(MER)	.494	.058	.494	8.463	.000	.430	2.326
Zscore(MEI)	.306	.052	.306	5.850	.000	.535	1.868
Zscore(MSEI)	.167	.049	.167	3.390	.001	.602	1.661
Zscore(MCO)	.182	.047	.182	3.909	.000	.678	1.475
Z(MCO* MER)	-.311	.075	-.311	-4.173	.000	.211	4.737
Z(MCO* MEI)	.251	.068	.251	3.692	.000	.210	4.769

Notes: Z (MCO* MEI) = Z score consumer orientation * Z score environmental investment

Source: Survey Data (2015)

4.8.7 Moderating Effect of Consumer Orientation on the Relationship between Social Environment Initiative and Corporate Sustainability

Introduced interaction of consumer orientation and social environment initiative in model 6 explained only 87.8% (R^2 = .878) of the variance on corporate sustainability which contributed an additional ΔR^2 = 0.006, ΔF (11, 86) = 3.758, P = 0.056 which was statistically insignificant. Durbin-Watson statistic for this regression was 1.889 and falls within the acceptable range which indicated that the residuals were positive and not correlated. ANOVA model results as indicated in model 6 shows good model fit as illustrated by overall test of significance, F (11, 86) = 56.166, P = 0.00 was statistically highly significant. Thus, the model was fit to predict corporate sustainability using interaction between consumer orientation and social environment initiative.

The regression coefficients for environmental reporting on corporate sustainability (β = 0.432, t = 6.583, P < 0.05), environmental investment on corporate sustainability (β = 0.305, t = 5.923, P < 0.05), social environment initiative on corporate sustainability (β = 0. 210, t = 3.937, P < 0.05), consumer orientation on corporate sustainability (β = 0. 198, t = 4.256, P < 0.05), interaction between consumer orientation and environmental reporting on corporate sustainability (β = - 0.619, t = 12.854, P < 0.05) and interaction between consumer orientation and environmental investment on corporate sustainability (β = 0. 355, t = 4.136, P < 0.05) were statistically highly significant. However, interaction between consumer orientation and social environment initiative on corporate sustainability (β = - 0. 332, t = - 1.939, P < 0.05) was negative but insignificant.

Hypothesis H_{05c} postulated that consumer orientation does not moderate the relationship between social environment initiative and corporate sustainability. The results failed to reject hypothesis H_{05c} suggesting consumer orientation did not moderate the effect of social environment initiative on corporate sustainability. This implied that consumer orientation antagonized the effect of social environment initiative on corporate sustainability. The variables had tolerance values of above 0.2 and VIF of less than 10 therefore multicollinearity was not a problem in this hierarchical regression. In summary, the results of the hierarchical regression following the suggestions of Baron and Kenny (1986), the six robustness steps analysis supported the idea that consumer orientation moderated environmental reporting, environmental investment and does not moderate social environment initiative on corporate sustainability as shown in Table 4.36. In the context of the study therefore, corporate sustainability = $\alpha + \beta_1 ZER + \beta_2 ZEI + \beta_3 ZSEI + \beta_4 ZCO + \beta_5 ZCO*ER + \beta_6 ZCO*EI + \beta_7 ZCO*SEI + C + \varepsilon$ had standardized β values

significantly different from zero. Thus, the model can significantly be used to predict corporate sustainability.

Table 4.36: Regression Coefficients of Interaction between CO and SEI Predicting CS

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model 6	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	.069	.041		1.657	.101		
Zscore(Fage)	.047	.070	.047	.676	.501	.291	3.435
Zscore(Fsize)	.044	.042	.044	1.052	.296	.815	1.228
Zscore(Fowner)	.053	.047	.053	1.127	.263	.638	1.568
Zscore(Fsector)	.080	.077	.080	1.028	.307	.237	4.211
Zscore(MER)	.432	.066	.432	6.583	.000	.329	3.038
Zscore(MEI)	.305	.052	.305	5.923	.000	.535	1.869
Zscore(MSEI)	.210	.053	.210	3.937	.000	.499	2.005
Zscore(MCO)	.198	.047	.198	4.256	.000	.656	1.525
Z(MCO* MER)	.619	.048	.619	12.854	.000	.512	1.953
Z(MCO* MEI)	.355	.086	.355	4.136	.000	.127	7.870
Z(MCO* MSEI)	-.332	.171	-.332	-1.939	.056	.305	3.276

Notes: Z(MCO* MSEI)= Z score consumer orientation* Z score social environment initiative.

Source: Survey Data (2015)

4.8.8 Probing of Interactions

When an interaction is established, it should be probed to establish the relationship of independent variable, moderator variable and dependent variable. Three methods are applied to probe the results of moderated regressions. First, subgroup analysis, where data is split into various subset defined by the moderator and the analysis repeated on these subgroups (Hayes & Matthes, 2009). Second, pick-a-point approach, this involves selecting representative values of the moderator and estimating the effect on exogenous variable (Aiken &West, 1991). Third, Johnson-Neyman technique, which addresses the problems of picking points in the pick-a-point approach through mathematically, deriving point(s) of the moderator and exogenous variable. The method adopted for this study was pick-a-point approach using MODPROBE, by Hayes (2005).

Hypothesis H_{05a} stated that consumer orientation does not moderate the relationship between environmental reporting and corporate sustainability. The examination of the interaction plots showed that consumer orientation enhanced the effect of environmental reporting on corporate sustainability as presented in figure 4.1. It exhibited transition from positive (β = -0. 538, $P < 0.05$) at low level to positive effects at high level (β = 0. 752, $P < 0.05$) which led to the rejection of the hypothesis.

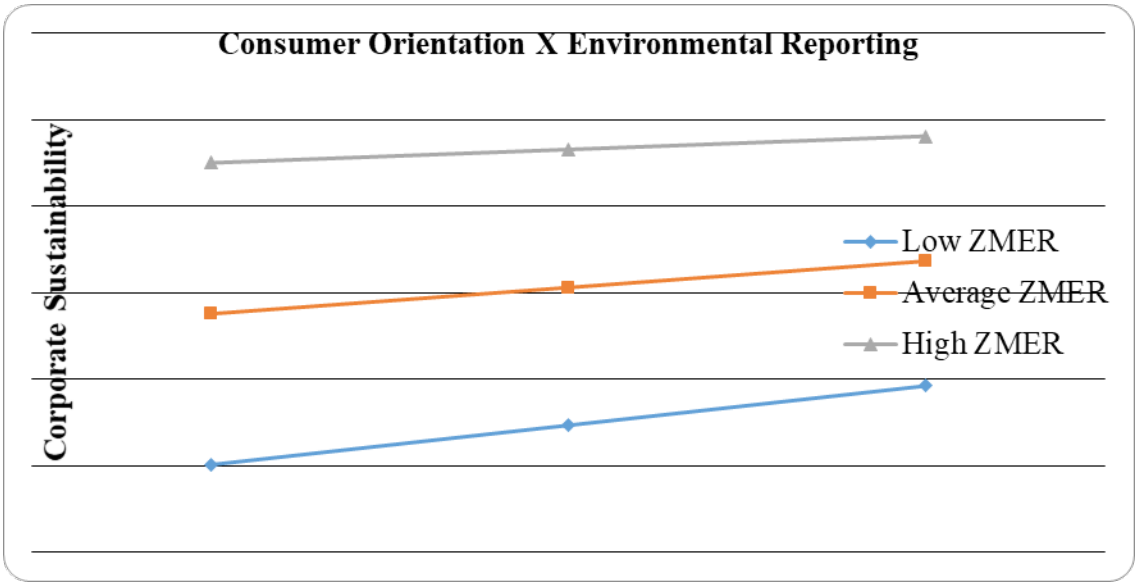

Figure 4.1: Simple plots for two way Interaction of Consumer Orientation and Environmental Reporting.

Source: Survey Data (2015)

Hypothesis H_{05b} indicated that consumer orientation does not moderate the relationship between environmental investment and corporate sustainability. The examination of the interaction plots showed that consumer orientation enhanced the effect of environmental investment on corporate sustainability as presented in figure 4.2. It exhibited transition from positive (β = - 0. 397, P < 0.05) at low level to positive effects at high level (β = 0. 304, P < 0.05) which led to rejection of the hypothesis.

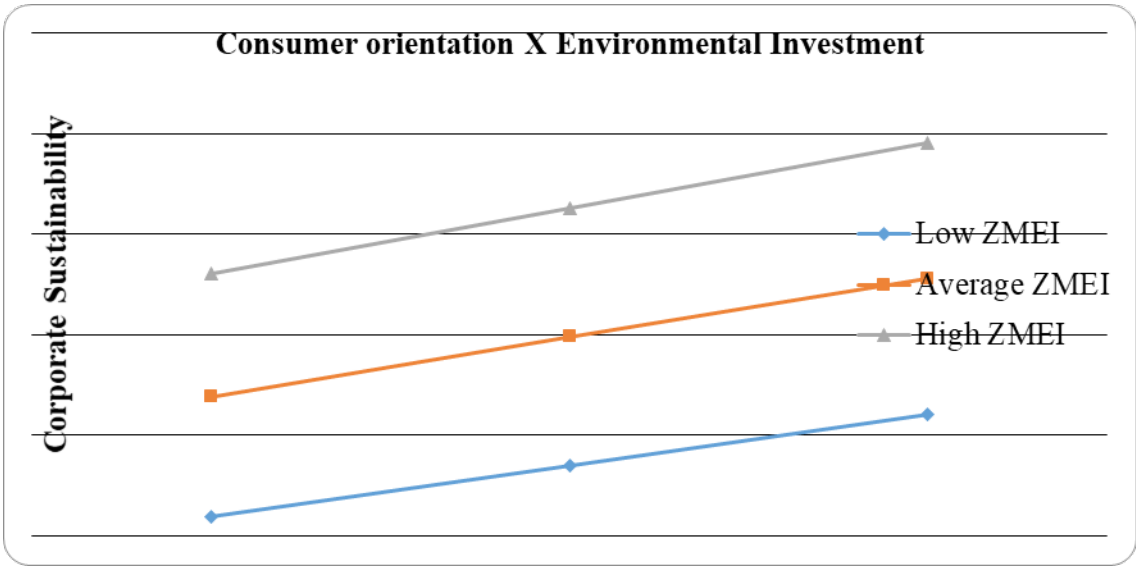

Figure 4.2: Simple plots for two way Interaction of Consumer Orientation and Environmental Investment.

Source: Survey Data (2015)

Hypothesis H_{05c} postulated that consumer orientation does not moderate the relationship between social environment initiative and corporate sustainability. The examination of the interaction plots showed that consumer orientation antagonized the effect of social environment initiative on corporate sustainability as shown in figure 4.3. It presented transition from positive ($\beta = 0.456$, $P < 0.05$) at low level to positive effects at high level ($\beta = -0.236$, $P < 0.05$) which led to acceptance of the hypothesis.

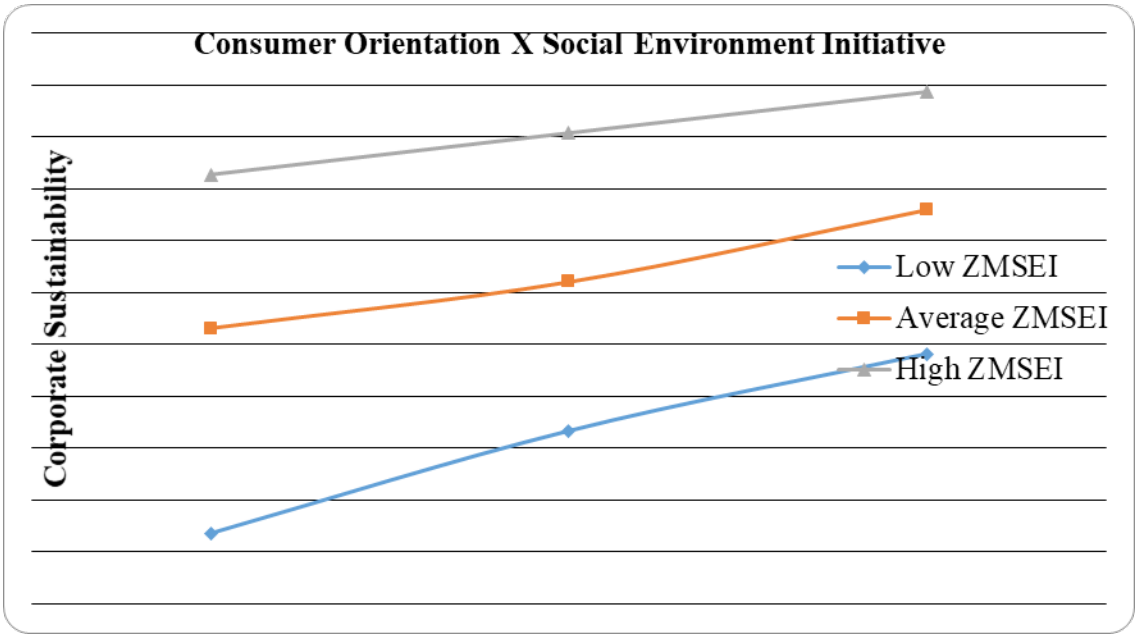

Figure 4.3: Simple plots for two way Interaction of Consumer Orientation and Social Environment Initiative.

Source: Survey Data (2015)

4.8.9 Summary of Hypotheses Results

The results of the hierarchical regression in testing hypotheses supported the idea that consumer orientation had highly significant moderating effect on the relationship between environmental reporting, environmental investment and corporate sustainability. This is shown in Table 4.37 the hypotheses were rejected or failed to be rejected.

Table 4.37: Results of Hierarchical Regression Analysis

Hypotheses	Results
$H_{01:}$ There is no significant effect of environmental reporting on corporate sustainability	Rejected
H_{02}: There is no significant effect of environmental investment on corporate sustainability	Rejected
$H_{03:}$ There is no significant effect of social environment initiative on corporate sustainability	Rejected
H_{O4}: There is no significant effect of consumer orientation on corporate sustainability	Rejected
H_{05a}: Consumer orientation does not moderate the relationship between environmental reporting and corporate sustainability	Rejected
H_{05b}: Consumer orientation does not moderate the relationship between environmental investment and corporate sustainability	Rejected
H_{05c}: Consumer orientation does not moderate the relationship between social environment initiative and corporate sustainability	Fail to reject

Source: Survey Data (2015)

4.9 Discussion of Empirical Results and Related Literature of the Findings

Hierarchical regression models were employed to test the proposed hypotheses and to analyze the relationships. Hypotheses of the study were formulated and tested at 5% level of significance. According to Dunn (2001), the beta coefficients indicate the slope in the model that relates independent variables to the dependent variables. The size of the beta coefficient indicated the magnitude in influencing the dependent variable where t-test was used to compare regression coefficient Beta (β) with 0. Similarly, standardized coefficients were used to explain the hypotheses tested. Discussion was based on both literature and empirical results of hypotheses presented in chapter one and it provided possible explanation as to why hypotheses were supported or unsupported.

4.9.1 Effect of Environment Reporting on Corporate Sustainability

First hypothesis (H_{O1}) stated that there is no significant effect of environmental reporting on corporate sustainability. In support of expectation of the study, findings indicated that environmental reporting had positive and highly significant effect on corporate sustainability ($\beta = 0.575$, $P < 0.05$) and the hypothesis was therefore rejected. The coefficient of 0.575 implied that one unit increase in environmental reporting was likely to result in 0.575 increases in corporate sustainability when other factors are held constant. In line with past studies of Clarkson *et al*. (2011) using a comprehensive and more objective measure of environmental disclosure, resulted in positive link between such disclosures and the economic value of a firm.

Meanwhile, superior environmental and socially responsible practices and their subsequent disclosure process of corporate accountability through engaging in social and environmental reporting can be a significant source of potential in contributing towards sustainability (Milne *et al*., 2009). Similarly, beyond legitimization, CSR reporting is believed to promote companies' reputation and foster competitive advantages (Kuruppu & Milne, 2010). According to Walker *et al*. (2007) reporting about social and environmental responsibilities is a way of positioning the organization and to communicate where the company wants to be now and in the future.

4.9.2 Effect of Environmental Investment on Corporate Sustainability

Second hypothesis (H_{02}) suggested that there is no significant effect of environmental investment on corporate sustainability. In support of expectation of the study, findings indicated that environmental investment had positive and highly significant effect on corporate sustainability ($\beta = 0.264$, $p < 0.05$). The hypothesis was therefore rejected. The coefficient of 0.264 implied that one unit increase in environmental investment was likely to result in 0.264 increases in corporate sustainability. This was consistent with finding of Cainelli *et al*. (2012), who showed that investments aimed at reducing the environmental impact are expected to trigger the introduction of sustainable methods and products. Thus, enabling the firm to overcome trade barriers imposed to non-sustainable producers.

In addition, findings echoed the call made by Porter and van der Linde (1995), who argued basically that improving company's environmental performance can lead to better economic or financial performance and not necessarily to an increase in cost. Consequently, firms have responded to the consumer desire for green offerings (Sharma *et al*., 2010). These environmental strategies have been shown to positively impact everything from public relations, brand reputation and employee motivation (Zhu & Sarkis, 2004) to consumer attitudes and intentions (Ginsberg & Bloom, 2004). While some of these investments arise from industry attempts to set environmental standards where none currently exist, many investments seem to be aimed at reducing the costs of complying with existing regulations and the so called 'win–win' hypothesis of environmental investment (Lyon & Maxwell, 2004).

4.9.3 Effect of Social Environment Initiative on Corporate Sustainability

Third hypothesis (H_{O3}) postulated that there is no significant effect of social environment initiative on corporate sustainability. From the results social environment initiative had positive and statistically highly significant effect on corporate sustainability ($\beta = 0.221$, $p < 0.05$). The hypothesis was therefore rejected. The coefficient of 0.221 implied that one unit increase in social environment initiative was likely to result in 0.221 increases in corporate sustainability. In line with previous finding of Burt (1992) had shown social-related CSR emerges from relationships between an organization and its employees, business partners and other stakeholders who provides opportunities to create value of the firm.

The finding was supported by studies of Murphy *et al*. (2012) who highlighted how firms can invest in social issues to prepare new market opportunities in emerging countries. Evidently, Ahmad and Juhdi (2008) found that belief about product safety for use has a significant positive impact on consumers' intention to buy green and organic products. Since one of the most common mentioned reasons for purchasing organic products was that, it was perceived as healthier than conventional alternatives which in turn influence green buying behaviour. Similarly, socially responsible behavior and actions by the business will be reciprocated by the community in a meaningful manner that contributes to the sustainability of the business (Niehm *et al*., 2008).

4.9.4 Effect of Consumer Orientation on Corporate Sustainability

Fourth hypothesis ($H_{04)}$ stated that there is no significant effect of consumer orientation on corporate sustainability. The results indicated that consumer orientation ($\beta = 0.117$, $p < 0.05$) was significant. This suggested that consumer orientation had

positive and statistically significant effect on corporate sustainability. Therefore, hypothesis was rejected. The coefficient of 0.117 implied that one unit increase in consumer orientation was likely to result in 0.117 increases in corporate sustainability. Admittedly, hierarchical regression model 3 confirmed that consumer orientation was a pure moderator variable, it interacted with the predictor variables to modify the form of the relationship between predictors and criterion.

4.9.5 Consumer Orientation Moderating Effect on the Relationship between Environmental Reporting and Corporate Sustainability

Fifth hypothesis (H_{05a}) stated that consumer orientation does not moderate the effect of environmental reporting on corporate sustainability ($\beta = 0.662$, $p < 0.05$) and the hypothesis was not supported. The study found that consumer orientation had positive and highly significant factor in moderating environmental reporting on corporate sustainability. The coefficient of 0.662 implied that one unit increase in interaction between consumer orientation and environmental reporting was likely to result in 0.662 increases in corporate sustainability. Other studies have found that when consumers were made aware of what CSR was. It appears that CSR does lead to positive attitudes and stronger behavioral intentions towards buying products from a socially-responsible company (Pomering & Dolnicar, 2009; Sen *et al*., 2006). Some campaigns play obvious role in enhancing awareness of consumers which make consumers be willing to spend more money for green products (Garcı´a-Gallego & Georgantzı´s, 2011).

Information on ethical products or services and ethical business behaviour may contribute to higher awareness, improved purchasing intentions and ethical buying behaviour of consumers (Tustin & de Jongh, 2008). Interviewed financial managers

communicated their ECSR activities to consumers through green labels and participation in trade fairs, where Peter Evans described as ‘counter hegemonic networks’ (Evans, 2000), characterizing a process of ‘globalization from below’ (Portes, 1999). It was an effort to link socially and environmentally conscious consumers in the north of the continent with producers engaged in socially progressive and environmentally sound farming in the south of the continent. Similarly, building more direct links or trade networks between consumers and producers provides the latter with greater benefits from the marketing of their products than conventional production. Thus, breaking down the traditional alienation of consumers from the products they purchased from producers.

4.9.6 Consumer Orientation Moderating Effect on the Relationship between Environmental Investment and Corporate Sustainability

Sixth hypothesis (H_{05b}) stated that consumer orientation does not moderate the effect of environmental investment on corporate sustainability. From the study consumer orientation was found to have positive and statistically highly significant factor in moderating environmental investment on corporate sustainability ($\beta = 0.251$, $p < 0.05$) and the hypothesis was rejected. The coefficient of 0.251 implied that one unit increase in interaction between consumer orientation and environmental investment was likely to result in 0.251 increases in corporate sustainability. Admittedly, it include initiatives such as considering consumer-oriented CSR activities since activities related to consumers’ lifestyle and values are perceived favorably (Lee *et al*., 2011). This is in line with several researchers who agreed that CSR investments and attitudes will eventually help the company to perform better economically (Granek Hassanali, 2005).

Environment investments aimed at reducing the environmental impact are expected to trigger the introduction of sustainable methods and products, thus enabling the firm to overcome trade barriers imposed to non-sustainable producers (Cainelli *et al*., 2012). Similarly, Bansal *et al*. (2014) argued that if investment decisions are made with a longer-term perspective they tend to naturally align business interest with societal interests. Through these investments, a firm can attain recognition as a socially thoughtful firm and consequently gains support from its stakeholders. These investments arise from industry attempts to set environmental standards where none currently exist. Many investments seem to be aimed at reducing the costs of complying with existing regulations and the so called 'win–win' hypothesis of environmental investment (Lyon & Maxwell, 2004). Additionally, interviewed managers mentioned profitability, environment protection and employment creation as the main reasons of undertaking environmental CSR.

4.9.7 Consumer Orientation Moderating Effect on the Relationship between Social Environment Initiative and Corporate Sustainability

Seventh hypothesis (H_{05c}) stated that consumer orientation does not moderate the effect of social environment initiative on corporate sustainability. The moderating role of consumer orientation was found in the study not to be significant in moderating the relationship between social environment initiative and corporate sustainability. The results indicated that consumer orientation negatively moderated the relationship between social environment initiative and corporate sustainability (β = -0.332, P > 0.05) but statistically insignificant. Therefore, hypothesis was accepted. The coefficient of -0.332 implied that one unit increase in interaction between consumer orientation and social environment initiative was likely to result in -0.332 decrease in corporate sustainability.

This implied that the interaction between consumer orientation and social environment initiative had no impact on corporate sustainability although negatively related. The explanation for this could be conventional wisdom that environmental social responsibility is a cost item encumbered by the firm, which may erode competitiveness (Ambec & Lanoie, 2008). This was in line with Barnea and Rubin (2010) who found that at low levels of CSR expenditure, the link between these expenditures and a firm's value is positive, but that relationship becomes negative when these expenditures go beyond a certain level.

It also corroborated Friedman's (1970) principle argument that there is one and only one social responsibility of business, to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition, without deception or fraud. Moreover, in their responses interviewed financial managers mentioned expenditure of internal environmental corporate social responsibility of the firm to be: soft loans to employees, fringe benefits to employees, children crèche for breastfeeding mothers, investment on pollution prevention and protective clothing to employees in that order. Expenditure of external environment investment include: Bursaries to students, building hospitals, building schools and planting of trees in the community respectively. All these activities involved money and could be costly to these firms.

Furthermore, previous studies by Wagner *et al*. (2009), consumers weigh CSR claims against their specificity, scientific plausibility, and consistency. Similarly, consumer attitudes differ markedly by nation (Madden *et al*., 2012) and businessmen do not have sufficient expertise regarding individuals and communities to alleviate social problems (Freeman & Liedtka, 1991). Also social issues were evaluated differently

and Du *et al*. (2010) reemphasized the importance of social issues as different social issues were evaluated dissimilarly. Devoting corporate resources to social welfares is tantamount to an involuntary redistribution of wealth from shareholders as rightful owners of the corporation to others in society who have no rightful claim (Barnett, 2007). In addition, when financial managers were interviewed concerning challenges facing firms when implementing both internal and external environmental corporate social responsibility. They mentioned: lack of finances, communities were too much demanding, lack of follow up, lack of coordination, lack of support and lack of knowledge on these projects respectively.

4.9.8 Validation of the Conceptual Model

Based on hierarchical analysis results on model 6 could be inferred that, the findings validated the conceptual framework (Fig 2.1) developed for this study as it shed light on the link between environmental corporate social responsibility and corporate sustainability as moderated by consumer orientation. Although the last interaction was not significant the overall model: Corporate sustainability = $\alpha + \beta_1$ ZER + β_2 ZEI + β_3 ZSEI + β_4 ZCO + β_5 ZCO*****ER + β_6 ZCO*****EI + β_7 ZCO*****SEI + C + ε using F ratio 56.166 with p value 0.000 < 0.05 was statistically highly significant and the model was fit to predict corporate sustainability.

The findings highlighted implications to stakeholder theory, new collective theory and sustaincentrism theory on dimensions which affect corporate sustainability. Stakeholder theory maintains that corporations should consider the effects of their actions upon the customers, suppliers, general public, employees, shareholders and others who have a stake or interest in the corporation (Lee, 2008) to enhance their sustainability. New collective theory explains consumer purchasing behaviour is

based on rational and moral based approaches of consumer when buying from environmentally friendly companies. Gladwin *et al*. (1995) argued that sustaincentrism theory explains from the position that business is embedded within social and natural systems and is a major contributor to social and environmental problems which affected its sustainability.

Interviewed financial managers were confident that firms which engaged in ECSR had bright future since ECSR pay back accumulatively in terms of profit, environment protection and employee retention. To confirm their claim financial statements of these firms on ECSR expenditure and profits as well as human resource inventories since 2009 to 2013 were analyzed. The data was read into R statistical software to plot time series. The two models which test non constant variance and recent changes in the data are Autoregressive Conditional Heteroskedasticity (ARCH) and Generalized Autoregressive Conditional Heteroskedasticity (GARCH) were tested for their significant usage. Both were significant but ARCH was used. The results were presented on graphs shown in (Appendix 9), it was clear that on average observed data on profit and ECSR expenditure was different from 0. This indicated that ECSR leads to profit which affects sustainability of producer firms. Similarly, data on labour turnover and ECSR expenditure was different from 0. Hence ECSR leads to employee retention which was necessary for sustainability of producer firms.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter discusses summary of the findings, hypotheses tested and why they were supported or unsupported. It was followed by conclusions of the study, implications of the study, implications to practice and theory as well as recommendations for further research.

5.1 Summary of the Findings

The study postulated seven null hypotheses, out of which six were not supported and one was supported.

The first hypothesis stated that there was no significant effect of environmental reporting on corporate sustainability. The relationship was found to be positive and statistically highly significant and the hypothesis was rejected. The findings of this study indicated that environmental reporting had positive significant effect on corporate sustainability.

The second hypothesis proposed that there was no significant effect of environmental investment on corporate sustainability. The relationship was found to be positive and statistically highly significant and the hypothesis was not supported. The findings of this study indicated that environmental investment had positive significant effect on corporate sustainability.

The third hypothesis postulated that there was no significant effect of social environment initiative on corporate sustainability. The relationship was found to be

positive and statistically highly significant and the hypothesis was therefore rejected. The findings of this study indicated that social environment initiative had positive significant effect on corporate sustainability.

The fourth hypothesis stated that there was no significant effect of consumer orientation on corporate sustainability. The relationship was found to be positive and statistically significant and the hypothesis was not supported. The study found that consumer orientation had positive significant effect on corporate sustainability. This indicated that consumer orientation was a pure moderator; it interacted with the predictor variables to modify the form of the relationship between predictors and criterion as shown by the results in model 3. Although it's mean variance was significantly different from those of independent variables, their combinations significantly predicted corporate sustainability.

The fifth hypothesis proposed that consumer orientation does not moderate the effect of environmental reporting on corporate sustainability. The results indicated that consumer orientation had highly significant and positive moderating effect on the relationship between environmental reporting and corporate sustainability and the hypothesis was not supported.

The sixth hypothesis stated that consumer orientation does not moderate the effect of environmental investment on corporate sustainability. The results indicated that consumer orientation had statistically highly significant and positive moderating effect on the relationship between environmental investment and corporate sustainability. This revealed that consumer orientation significantly moderated the effect of environmental investment on corporate sustainability and the hypothesis was rejected.

The seventh hypothesis postulated that consumer orientation does not moderate the effect of social environment initiative on corporate sustainability. The results indicated that consumer orientation had insignificant and negative moderating effect on the relationship between social environment initiative and corporate sustainability. Therefore, consumer orientation does not moderate the effect of social environment initiative on corporate sustainability and the hypothesis was accepted.

Based on moderated hierarchical regression results, it was evident that consumer orientation was a pure moderator variable. In addition, consumer orientation created an enhancing effect of environmental reporting on corporate sustainability because it maintained the positive relationship throughout hierarchical regression. It also created an enhancing effect of environmental investment on corporate sustainability as it maintained the positive relationship throughout hierarchical regression according to Cohen and Cohen (1983). However, it created antagonistic effect of social environment initiative on corporate sustainability because when interacted with social environment initiative the effect became negative and insignificant, yet it was highly significant initially before interaction according to Lindley and Walker (1993).

Furthermore, interaction between consumer orientation and social environment initiative on corporate sustainability was insignificant. This could be attributed to personal and social orientation measures of consumer orientation and their effects might have led to insignificant results. Similarly, Du *et al*. (2010) argued of two factors which affected individual consumption, one is if the individuals' social value orientation is prosocial that is caring about others and themselves equally. Two is individualistic caring about themselves more than others or competitive through caring only about themselves and trying to get advantages over others. Like the

oblivious, confused and uncertain, cynical and disinterested consumers. Prosocialists consumers are expected to support CSR activities to greater extent than individualistic consumers creating enhancing effect on corporate sustainability.

There was likelihood that individual consumer could create enhancing, buffering and antagonistic effect on corporate sustainability. Hence, an indication that consumer orientation had significant moderating effect on the relationship between environmental corporate social responsibility and corporate sustainability. The overall F test of 56.166 which was statistically highly significant confirmed the moderating role of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability. This further provided support for new collective theory of consumer behaviour and sustaincentrism theory. However, there was need to reassess stakeholder theory to satisfy the interest of key stakeholders to ensure corporate sustainability.

5.2 Conclusions

Empirical findings of this study confirmed the significant relationship between environmental corporate social responsibility and corporate sustainability. The study also confirmed significant moderating effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability of producer firms in Kenya. The moderated findings of this study raised some important inconsistencies in relation to past research studies conducted on environmental corporate social responsibility and consumer orientation. The explanation was that consumers weighted CSR claims against their specificity, scientific plausibility and consistency (Wagner *et al*., 2009). Similarly, consumer attitudes towards ethical products also differed markedly by nation (Madden *et al*.,

2012) as exhibited in Kenya. Subsequently, this supported categorization of consumers into caring and ethical, cynical and disinterested, confused and uncertain and oblivious.

The study submitted that CO moderated significantly environmental reporting and environmental investment on corporate sustainability. The insignificant moderating effect of consumer orientation on the relationship between social environment initiative and corporate sustainability might be explained differently by personal and social orientation of an individual. Admittedly, Trevino and Youngblood (1986) argued on the same that individual factors have moderating effects on ethical decision-making differently. From this, it was deduced that consumers had extrinsic and intrinsic inspiration factors which influenced their purchasing behaviour and it was clear that consumers carried out a number of ethical decisions when purchasing ethical products.

Moreover, to understand these ethical decisions the model combined moral and rational considerations of consumers in an attempt to create a catchall framework for the topic of this study. Similarly, views on consumer orientation came out clearly that individual rational and moral dimensions impacted positively or negatively on consumer's ethical judgment and intentions on social issues differently. This was in line with Bonini *et al*. (2007), who noted that consumers and company executives being part of stakeholders perceived the importance of social issues differently which resulted into insignificant results of moderated social environment initiative on corporate sustainability.

In addition, ECSR practices differed from country to country and culture to culture and this study developed framework that was consistent with the Kenya's style. In

this context, it appeared that the ECSR concept has a bright future as shown by the results. This is because at its core addressed and captured the most important concerns of stakeholders especially ethical and caring consumers. It was evident by environmental reporting, environmental investment, social environment initiative, consumer orientation and their interactions which were statistically highly significant using the overall F-test, except control variables which were not used to predict corporate sustainability. This was in support with early advocates of the 'green is gold' school of thought (Lyon *et al*., 2007) which argued that cost savings due to increased efficiency and waste elimination compensated for the cost of such environmental CSR activities.

5.3 Implication of the Study

The results of the study indicated that for firms to ensure their continued sustainability there was need to increase ECSR activities towards consumers to make firms more attractive to ethical consumers as shown by overall F-test which was statistically highly significant. This means building trust, loyalty and good relationship with consumers to ensure firm sustainability. These activities are considered to be the pillars of today's firm success because long term caring and ethical loyal consumers potentially create long term profits through purchase of organic products. Similarly, Bonini *et al*. (2007) confirmed that consumers evaluate environmental-related CSR as the most important CSR field and green consumers will try to indicate their concern for the environment by purchasing only green products (Rahbar & Wahid, 2010).

Additionally, there is need for the County governments and national government to create conducive environment for these firms to undertake ECSR to win caring and ethical consumers. It is important for businesses and governments in developing

countries to follow this example by improving their perceptions of greening and its impact on consumer purchasing behaviour (Polonsky, 1994). Researchers have suggested that consumers generally have positive attitudes toward social responsibility, but only consumers who have strong identity as ethical consumers actually purchase socially responsible products (Hiller Connell, 2011). It was evident by consumers' orientation towards ECSR which had significant effect on CS as indicated by the interaction with environmental reporting and environmental investment which were statistically highly significant.

Interaction effect of CO and social environment initiative was not significant on CS because of ECSR implementation challenges. This calls for county governments and national government to eliminate challenges facing implementation of ECSR. As it was clear from the interviews of financial managers that the challenges included: lack of support, lack of follow up, lack of coordination, lack of funds and lack of expertise to manage these social environmental activities which didn't pull consumers. The most challenging issue was that the surrounding communities demanded more projects, from these firms making it impossible to achieve their targets yet consumers never bothered about these projects. Whilst such environmental or social labels projects may facilitate market access or even a premium price, there was an associated cost even though consumers may be interested in greening but cannot identify it (Auger & Devinney, 2007). Therefore, green products do not strongly influence all consumers but it is necessary to identify and target environmentally concerned consumers.

As a result this call for managers of producer firms to advance research on consumers to enable them understands consumers in real life settings and to satisfy their needs

and even exceed. Consumers are not homogenous group and may need specific treatment designed to meet their needs. Therefore, environmental concerns are not the only reasons for the consumers to purchase environmentally friendly products. They do not agree to trade-off other product attributes for a better environment as seen in cynical and disinterested, confused and uncertain and oblivious consumers. The most valuable approach, although difficult, would be for firms to segment consumers according to their personal orientation, social orientation and communicate differently ECSR efforts of the firms to different target consumers.

Generally managers of producer firms before adopting green stance, they need to first gain thorough understanding of consumers purchasing behaviour and how they are affected by this stance. Significantly managers should ensure consumers believe and act on the belief that their consumption of organic products is making a positive impact on environment, this is likely to alter their behavior in the same direction of green stance. They need to be aware that ethical and caring consumers do not deny consumption but rather choose goods that reflect their moral, ethical and social concerns (Szmigin & Carrigan, 2006). Managers should understand consumer personal norm which represents the moral obligation to act and attitude towards behavior which incorporates, the rational process behind the consumer's personal view on the purchase of organic products. As a result the weighting of personal norm and attitude towards purchase behavior should be understood to vary among individuals based on personality.

5.4 Implication for Practice and Theory

It covers contribution to practice and theory.

5.4.1 Implication for Practice

The results of this study provided valuable information and guidelines that would be useful to Kenyan producer firms' policy makers and implementers, in addressing issues and designing appropriate measures or interventions to positively impact corporate sustainability. As earlier noted in chapter four environmental reporting was highly significant and positively related to corporate sustainability of producer firms. This involves reporting of clear accurate reports on employee development, resource sustainability and community projects. This drove producer firms objectives towards CO based on the understanding of ethical values to reach the elusive ethical consumer on ECSR. This means that it might be beneficial for producer firms in Kenya to advertise their work with ECSR labels. Firm managers have to bear in mind the complex consumer evaluation process required to achieve consumers' appreciation of ECSR efforts. They have to make ECSR information more easily available and point out ways a product or the entire firm is connected to ECSR initiatives.

More interestingly, environmental investment had positive and significant effect on corporate sustainability of producer firms in Kenya. The sustainability came as a result of firms attracting ethical consumers through great investment in terms of expenditure on sustainability of natural resources. They also extended assistance for communities to sell their fair trade label products at premium price and management of products through reduce, reuse and recycle. This translated to the rate at which resources were used by producer firms never exceeded the rate, at which these resources were replaced, replenished or substituted by alternative resources. This

means the rate at which these firms through transformation processes of products generated emissions that cannot exceed the rate at which it can be assimilated by the environment.

Finally, social environment initiative had positive and significant effect on corporate sustainability. This means producer firms developed new markets of ethical consumers for its goods in emerging countries like Kenya, leveraging on CO through socially responsible business model that respects the existing social capital and improves the well being of local communities. These firms created economic value, reduced poverty and increased social equity of all stakeholders. Perhaps because they funded community projects beyond pure profits, ensured work life balance among employees, employees' development and upholding occupational health and safety which attracted ethical consumers. This brought more changes and quality living standards within communities surrounding producer firms.

5.4.2 Implication for Theory

First, the finding on the moderating effects of consumer orientation contributes to ECSR and CS literature. Furthermore, the findings confirmed that moderating the three dimensions of ECSR had significant effects on CS. In this regard, this study supports paradigm for multifiduciary relationship between managers and all stakeholders of the firm especially ethical and caring consumers. Whereby fiduciary relationship involves promoting the interests of one group above others; however, everyone recognizes, the interests of shareholders, customers, suppliers, employees and communities in the management of a firm's assets are conflicting (Marcoux, 2003).

Moreover, it limits application of stakeholder theory which explains value creation to all stakeholders which is very reasonable expectation but moderated results of social environment initiative on corporate sustainability were negative but insignificant. However, consumers are key stakeholders when it comes to making business a going concern. This indicated that producer firms need to reconceptualize stakeholder theory and to analyze differently the influence of individual groups of stakeholders, especially caring and ethical consumers on environmental issues in developing countries context. Since this is different from developed countries.

Second, this study contributes to the evolution of environmental CSR and CO literature .It also extends contribution of new collective theory of consumer behavior, where findings indicated that consumer purchase behavior on organic products from environmentally friendly firms is influenced by several factors. These factors fall into two categories, namely individual and group factors (Cant *et al*., 2006) or social and personal orientation according to Tsai (2005). It confirmed the relevance of planned behavior and the value belief norm theories which form the new collective theory. This explains consumer purchase behavior in terms of rational and moral dimensions especially in developing country context. Firms should take these factors into account when developing green product/service offerings so as to come up with need satisfying profitable offerings.

Finally, the findings of the study added new variable consumer orientation to extend the literature and understanding of sustaincentrism theory. The moderating role of consumer orientation on dimensions of environmental CSR influenced corporate sustainability of producer firms in developing country context significantly. This enriched contingency of environmental CSR studies as evidenced by ANOVA model

summary where the F ratios were statistically highly significant. The explanation was that Panni (2006) found that the more the consumers are aware regarding the societal and environmental issues the more they are involved in pro-social and pro-environmental behavior which support corporate sustainability.

5.5 Recommendations for Further Research

This study focused only on producer firms in Kenya, this might limit generalization of the findings. Accordingly, future studies should examine whether the relationships reported here differ across all industry sectors. There may be differences between industries with respect to environmental corporate social responsibility, consumer orientation and corporate sustainability.

The results of this study provided valuable information on the moderating role of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability. It therefore recommends that future studies on consumer orientation should pay close attention to the sub-constructs of personal orientation, social orientation and their moderating role on social environment initiative as it was insignificant in this study. Also structural equation model can be used to analyze data and compare the results.

Despite these findings on the effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability, there are varieties of other factors that have not been addressed in this study. Particularly of importance is change of environmental factors. Future studies should explore whether and how change in environmental factors affect the moderating effect of consumer orientation on the relationship between environmental corporate social responsibility and corporate sustainability.

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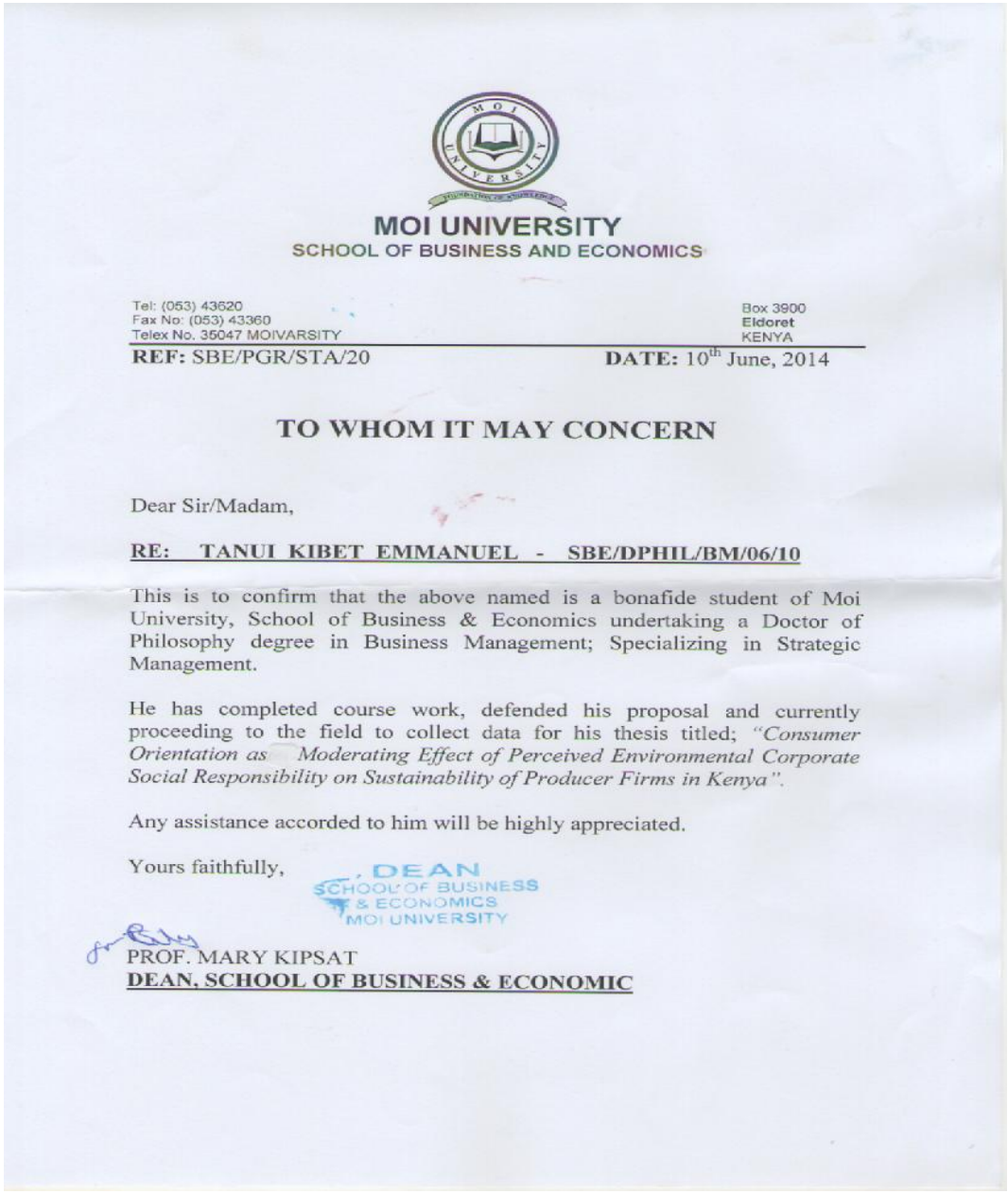
APPENDICES

Appendix1: Introduction Letter



MOI UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS

Tel: (053) 43620
Fax No: (053) 43360
Telex No. 35047 MOIVARSITY

Box 3900
Eldoret
KENYA

REF: SBE/PGR/STA/20 **DATE:** 10th June, 2014

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: TANUI KIBET EMMANUEL - SBE/DPHIL/BM/06/10

This is to confirm that the above named is a bonafide student of Moi University, School of Business & Economics undertaking a Doctor of Philosophy degree in Business Management; Specializing in Strategic Management.

He has completed course work, defended his proposal and currently proceeding to the field to collect data for his thesis titled; *"Consumer Orientation as Moderating Effect of Perceived Environmental Corporate Social Responsibility on Sustainability of Producer Firms in Kenya".*

Any assistance accorded to him will be highly appreciated.

Yours faithfully,

DEAN
SCHOOL OF BUSINESS
& ECONOMICS
MOI UNIVERSITY

PROF. MARY KIPSAT
DEAN, SCHOOL OF BUSINESS & ECONOMIC

EMMANUEL .K. TANUI
MOI UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS
PO BOX 3900
ELDORET
DATE…….

Dear Sir / Madam……

RE: INTRODUCTION

I am a postgraduate student at Moi University undertaking Doctorate degree in Business Management. I am conducting research study entitled **"Environmental Corporate Social Responsibility, Consumer Orientation and Corporate Sustainability of Producer Firms in Kenya".** The targets are registered firms at Agricultural Employers' Association Affiliated to the Federation of Kenya Employers. You have been identified as one of the respondent to provide information.

This is therefore to request you to complete the questionnaire attached as honestly as possible. It is expected that results from this study will provide useful information on sustainability of producer firms in Kenya. A group of researchers including myself will be visiting your firm to administer questionnaires to managers and consumers through drop and pick later .Interviews of financial managers will be done later at their convenience time and is expected to take less than one hour. Please be assured that the responses will be completely confidential and information will only be published or release in summaries from which neither individuals nor companies can be identified.

Thank you for your co-operation.

Yours faithfully

Emmanuel. K. Tanui

Appendix 2: Questionnaire for Managers

Section I: Instructions to Respondents

Please tick as appropriate.

If you change your mind about any answer, you may cross it neatly and tick another.

Part A: Firm Profile

1. Age of the firm:

1-10 ☐ 11-20 ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ 51 and above ☐

2. Total number of employees:

1-400 ☐ 401-800 ☐ 801-1200 ☐ 1201-1600 ☐ 1601-2000 ☐

2001 and above ☐

3. Which of the following best describes your firm?

Limited liability ☐ Subsidiary ☐ Partnership ☐

Sole proprietorship ☐ State owned ☐

4. What is your industry sector?

Tea ☐ Horticulture ☐

Part B: Environmental Reporting

Please indicate the extent to which you agree or disagree with the following environmental reporting initiatives in your firm? Indicate 1- Strongly disagree (SD), 2- Disagree (D), 3- Slightly disagree (SD), 4- Neutral (N), 5- Slightly agree (SA), 6 – Agree (A) and 7 – Strongly agree (SA).

Please circle **ONE** from **EACH** row.

Serial	Statement	SD		N			SA	
1	Firm has an accurate report on resource sustainability	1	2	3	4	5	6	7
2	Firm has a transparent report on eco-efficiency	1	2	3	4	5	6	7
3	Firm has a clear report on trade networks	1	2	3	4	5	6	7
4	Firm has a clear report on health and safety	1	2	3	4	5	6	7
5	Firm has an accurate report on employee development	1	2	3	4	5	6	7
6	Firm has a clear report on eco-design of products	1	2	3	4	5	6	7
7	Firm has a clear report on community projects	1	2	3	4	5	6	7
8	Firm has an accurate report on environment protection measures	1	2	3	4	5	6	7
9	Firm has a clear and accurate report on eco- labeling	1	2	3	4	5	6	7
10	Firm reports are based on Global Reporting Initiative indicators	1	2	3	4	5	6	7

Part C: Environmental Investment

To what extent do you agree or disagree with the firm investment on the following environmental corporate social responsibility activities? Indicate 1 - Strongly disagree and 7–Strongly agree.

Please circle **ONE** from **EACH** row.

Serial	Statement	SD		N				SA
1	Our firm invests on sustainability of natural resources	1	2	3	4	5	6	7
2	Our firm invests on biodiversity through conservation of land, water and energy	1	2	3	4	5	6	7
3	Our firm protect environment through reduce, reuse and recycle of products	1	2	3	4	5	6	7
4	Our firm invests on cleaner production to prevent global warming as a result of carbon footprint	1	2	3	4	5	6	7
5	Our firm encourage fair trade networks to link community farmers and green consumers	1	2	3	4	5	6	7
6	Our firm assist community members to sell their fair trade label products at premium	1	2	3	4	5	6	7
7	Our staff members are involved in volunteer work like training community members on tea and horticultural production.	1	2	3	4	5	6	7

Part D: Social Environment Initiative

Please indicate the extent to which you agree or disagree with the following factors that make your firm undertake environmental social progress. Indicate 1 - Strongly disagree and 7–Strongly agree.

Please circle **ONE** from **EACH** row.

Serial	Statement	SD		N				SA
1	Firm intention is to uphold occupational health and safety of all employees	1	2	3	4	5	6	7
2	Firm intention is to attain average wage rates and benefits of employees as per the collective bargaining agreement	1	2	3	4	5	6	7
3	Firm encourages development of employees both professionally and personally	1	2	3	4	5	6	7
4	Firm avoid any form of employment discrimination	1	2	3	4	5	6	7
5	Firm ensures work life balance among employees	1	2	3	4	5	6	7
6	Firm actively involves in social project(s) development with the local community	1	2	3	4	5	6	7
7	Firm cooperation to empower individuals within the community	1	2	3	4	5	6	7
8	Firm intention is to motivate employees	1	2	3	4	5	6	7

Part E: Corporate Sustainability

Our firm sustainability benefits from environmental corporate social responsibility activities. Indicate 1 - Strongly disagree and 7–Strongly agree.

Please circle **ONE** from **EACH** row.

Serial	Statement	SD		N				SA
1	Firm attain high profits	1	2	3	4	5	6	7
2	Firm increase sales due to market expansion	1	2	3	4	5	6	7
3	Firm meet today's generation resource needs without compromising future generation needs	1	2	3	4	5	6	7
4	Firm gains prestige	1	2	3	4	5	6	7
5	Firm reputation is enhanced making it competitive in the market	1	2	3	4	5	6	7
6	Firm produce ethically products which consider consumer needs	1	2	3	4	5	6	7
7	Firm maintains stewardship of quality products throughout their lifecycle	1	2	3	4	5	6	7
8	Firm achieve morally accepted set standards	1	2	3	4	5	6	7
9	Firm create sustainable jobs to all stakeholders	1	2	3	4	5	6	7
10	Firm attains success of community development	1	2	3	4	5	6	7
11	Firm meet the legal requirements	1	2	3	4	5	6	7
12	Firm is effective due to controlled innovative internal business processes	1	2	3	4	5	6	7
13	Firm promote learning and growth which is the driving force for success	1	2	3	4	5	6	7
14	Firm attains consumer loyalty	1	2	3	4	5	6	7
15	Firm retain employees	1	2	3	4	5	6	7

Appendix 3: Questionnaire For Consumers

Section II: Instructions to Respondents

Please tick as appropriate.

If you change your mind about any answer, you may cross it neatly and tick another.

Part A: Consumer Orientation

The following factors influence my purchasing behaviour of organic products of the firm. In your view Indicate 1- Strongly disagree (SD), 2- Disagree (D), 3- Slightly disagree (SD), 4- Neutral (N), 5- Slightly agree (SA), 6 – Agree (A) and 7 – Strongly agree (SA).

Please circle ONE from EACH row.

Serial	Statement	SD			N			SA
1	I am willing to support ethical firm	1	2	3	4	5	6	7
2	I believe this firm is truly ethical	1	2	3	4	5	6	7
3	I am sure this firm is ethical	1	2	3	4	5	6	7
4	I consider firm's ethical behaviour as a factor when buying products	1	2	3	4	5	6	7
5	I am willing to buy products from a firm which ensures intergenerational resource equity	1	2	3	4	5	6	7
6	I am willing to purchase products if culture allows	1	2	3	4	5	6	7
7	I can make personal sacrifices to attain social status	1	2	3	4	5	6	7
8	I am willing to purchase products attached to fashion consciousness	1	2	3	4	5	6	7
9	I can pay high price for ethical products as an indicator of good quality	1	2	3	4	5	6	7

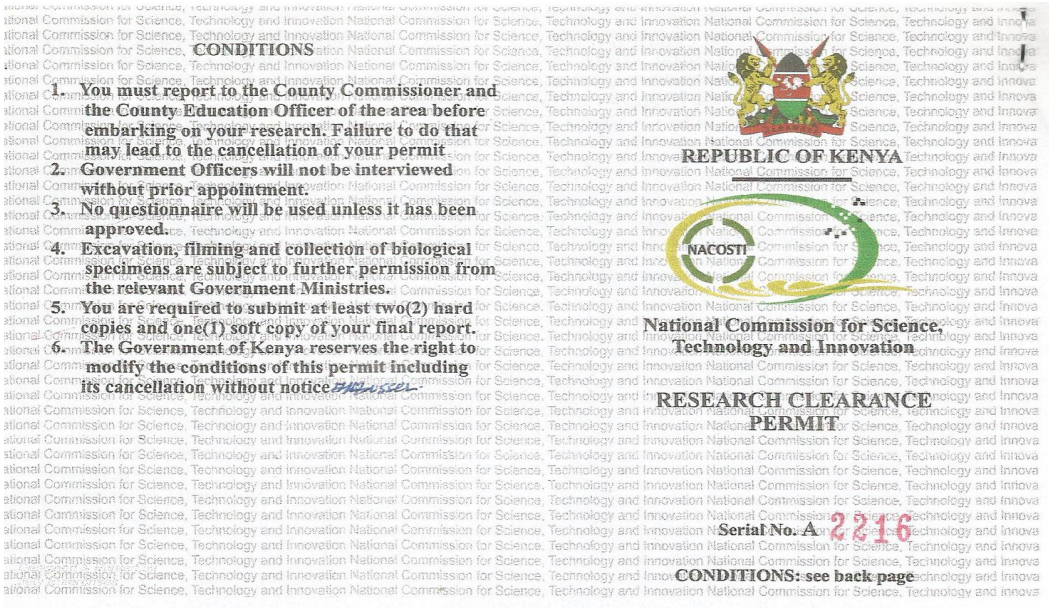
10	I consider health benefits	1	2	3	4	5	6	7
11	I am willing to purchase products attached to high ethical value	1	2	3	4	5	6	7
12	I can pay more for products to uphold integrity	1	2	3	4	5	6	7
13	I am willing to pay more if income increases	1	2	3	4	5	6	7

Appendix 4: Interview Schedule For Financial Managers

Section III: Interview Schedule

1. How do you ensure consumers get to know your products?
2. What could be the main reasons for your firm investing in environmental corporate social responsibility?
3. Describe internal and external environmental corporate social responsibility of your firm.
4. Generally do you expect environmental corporate social responsibility to pay back? If yes or no give reasons with facts.
5. Explain challenges facing the firm when implementing both internal and external environmental corporate social responsibility.
6. What can be the future fate of internal and external environmental corporate social responsibility in your firm?

Appendix 5: Permit



CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 2216

CONDITIONS: see back page

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date:
9th July, 2014

NACOSTI/P/14/7441/2233

Emmanuel Kibet Tanui
Moi University
P.O.Box 3900-30100
ELDORET.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Consumer orientation as moderating effect of perceived environmental corporate social responsibility on sustainability of producer firms in Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **selected Counties** for a period ending **10th November, 2014.**

You are advised to report to **the Chief Executive Officers of selected Firms, the County Commissioners and the County Directors of Education, selected Counties** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

SAID HUSSEIN
FOR: SECRETARY/CEO

Copy to:

The Chief Executive Officers
Selected Firms.

The County Commissioners
The County Directors of Education
Selected Counties.

Appendix 6: Kenya Counties

Appendix 7: List Of Firms

Agricultural Employers' Association

Affiliated to the Federation of Kenya Employers (F.K.E)
Safeguarding Employers' interests.

A.E.A

Nakuru Press Bld
Printing House Road
P O Box 17783 - 20100
Nakuru

01/03/2014

Emannuel Tanui
Moi University
P O Box 3900
Eldoret - 30100

Dear Sir,
Please find herein below the information required in the Agricultural Industry in Kenya: -

1. Flower/Horticultural Growers:

1.	AAA Growers Ltd	
2.	Africallalily Kenya Ltd	Box 709 Vllg Mkt Nbi
3.	Agribio (K) Ltd Ltd	Box 1739 Naivasha
4.	Agriflora (K) Ltd	Box 16533 Nakuru- 20100
5.	Batian Flowers Ltd	Box 266 Timau 10402
6.	Beauty Line Ltd	Box 2035 Naivasha 20117
7.	Bigot Flowers Ltd	Box 2039, Naivasha 20117
8.	Bilashaka Flowers Ltd	Box 2040 Naivasha 20117
9.	Black Petals Ltd	Box 508 Karuri - 00219
10.	Carzan Flowers Ltd	Box 1801 Nvs, 20117
11.	Charm Flowers Ltd	Box 51398 Nbi - 00200
12.	Colour Crops Ltd	Box 14870 Nakuru
13.	Countrywide Connections Ltd	Box 1076 Nanyuki 10400
14.	De Ruiters E. A. Ltd	Box 209 Naivasha 20117
15.	Embwen Ltd	Box 1262 Nakuru 20100
16.	Equator Flowers Ltd	Box 7610 Eldoret
17.	Fairy Flowers Ltd	Box 63276 Nairobi - 00619
18.	Florensis (K) Ltd	Box 1896 Naivasha - 20117
19.	Fontana Ltd	Box 15688 Nakuru
20.	Gorge Farm Ltd	Box 19226 - 00501 Nbi
21.	Groove Ltd	Box 1332 Naivasha 20117
22.	Hamwe Ltd	Box 791 Naivasha 20117
23.	Highlands Plants Ltd	Box 230 Ol Kalou
24.	Kakuzi Ltd (Floriculture)	Box 24 Thika - 00100
25.	Kantara Ltd(Del Pivot)	Box 19226/32931 Nbi
26.	Kantara Ltd(Thika)	Box 19226 - 00501 Nbi
27.	Karen Roses Ltd	Box 68010 Nairobi
28.	Kariki Ltd	Box 6038 Thika - 01000
29.	Kentalya Ltd	Box 928, Naivasha 20117
30.	Kenya Cuttings Ltd	Box 27774 Nairobi 00506
31.	Kijabe Ltd	Box 358 Naivasha 20117
32.	Kisima Farm Ltd	Box 64 Timau 10406
33.	Kitawi Farm Ltd	Box 32931 Nairobi

34.	Kongoni River Farm Ltd	Box 19226 - 00501 Nbi
35.	KPP Plant Production GMBH& Co	Box 64132 Nairobi
36.	Lamorna Ltd	Box 1913 Naivasha - 20117
37.	Lathyflora Kenya Ltd	Box 63276 Nairobi, 00100
38.	Laurel Investment Ltd	Box 49631 Nairobi 00100
39.	Lemotit Flowers Ltd	Box 2187 Kericho 20200
40.	Liki River Farm	Box 32931 Nairobi
41.	Live Wire Ltd	Box 791 Naivasha 20117
42.	Longonot Horticulture Ltd	Box 1271 Naivasha
43.	Maasai Flowers Ltd	Box 15139 Nairobi - 00509
44.	Magana Flowers (K) Ltd	Box 14618 Nairobi
45.	Maji Mazuri Ltd	Box 15139 Nairobi
46.	Maridadi Flowers Ltd	Box 1800 Naivasha 20117
47.	Molly Flowers Ltd	Box 552 Village Mkt Nbi
48.	Mosi Ltd	Box 39399 Nairobi, 00623
49.	Mt. Elgon Orchards Ltd	P O Box 124 Kitale
50.	Nini Ltd	Box 569 Naivasha 20117
51.	Ol Njorowa Ltd	Box 18156 Nairobi,00500
52.	Olij Kenya Investments Ltd	Box 479 Naivasha
53.	Oserian Dev Co Ltd	Box 209 Naivasha 20117
54.	P J Dave Flowers Ltd	Box 18436 - Nairobi
55.	Panocal Int. Ltd	P O Box 982 Kitale - 30200
56.	Penta Flowers Ltd	Box 40452 Nairobi
57.	Plantation Plants Ltd	Box 1909 Naivasha 20117
58.	Pollen Ltd	Box 1037 Ruiru, 00232
59.	Primarosa Flowers Ltd	Box 540 Athi River-00204
60.	Real IPM Co Ltd	Box 9730 - 01002 Madaraka, Thika
61.	Red Lands Roses Ltd	Box 10 Ruiru 00232
62.	Redshank Ltd	Box 15342 Nakuru, 20100
63.	Redstart Ltd	Box 7112 Nakuru
64.	Redwing Ltd	Box 7112, Nakuru, 20100
65.	Roseto Ltd	Box 3206 Nakuru
66.	Shalimar Flowers (K) Ltd	Box19255 Nairobi
67.	Sher Karuturi Ltd	Box 729 Naivasha 20117
68.	Simbi Roses Ltd	Box 769 Thika 01000
69.	Sirgoek Flowers Ltd	Box 5118 Eldoret
70.	Star Flowers (K) Ltd	Box 1401 Naivasha, 20117
71.	Subati Flowers Ltd	Box 25130 Nairobi - 00100
72.	Sunland Roses Ltd	Box 227 Timau 10402
73.	Tambuzi Ltd	Box 1148 Nanyuki - 10400
74.	Terrasol (K) Ltd	Box 63276 Nairobi, 00619
75.	Transebel Ltd	Box 39399 Nairobi
76.	Tropiflora Ltd	Box 622 Vllg. Mkt Nbi
77.	Tulaga Flowers Ltd	Box 1711 Naivasha 20117
78.	Tunnel Technology	Box 196 Gilgil 20116
79.	Uhuru Flowers Ltd	Box 47 Timau 10406
80.	Valentine Growers Co Ltd	Box 1846 Kiambu-00900
81.	Van Den Berg (K) Ltd	Box 1129 Nvsha, 20117
82.	Waridi Ltd	Box 202 Athi River 00204
83.	Wildfire Ltd	Box 379 Naivasha 20117
84.	Winchester Farm Ltd	Box 15139 Nairobi 00509

85.	Xpression Flowers Ltd	Box 7029/48232 Nku/Nbi
86.	Zena Roses Ltd	Box 53164 Nairobi

2 Tea Growers Ltd

Nandi County:

1	Chemoni Tea Estates
2.	Kaboswa Tea Estates
3.	Kaimosi Tea Estates
4.	Kaitet Tea Estates
5.	Kapchorua Tea Estates
6	Kaprachoge Tea Estates
7.	Kapsubeiwa Tea Estates
8.	Kaptindo Tea Estates
9.	Kepchomo Tea Estates
10.	Kibatet Tea Estates
11.	Kibwari Ltd
12.	Kipkeibon Tea Estates
13.	Kipkoimet Tea Estates
14.	Nandi Tea Estates
15.	Savani Tea Estates
16.	Siret Tea Co Ltd
17.	Sitoi Tea Estates
18.	Tinderet Tea Estates
	Kericho County
1.	James Finlays
2.	Unilever Tea Kenya Ltd
3.	George Williamson Tea
4.	Kabianga Tea Farm
5.	Kaisugu Ltd
6.	Mau Tea Estates
	Sotik
1.	Kipkebe Ltd
2.	Sotik Highlands Estates
3.	Sotik Tea Co Ltd

3. Coffee Growers

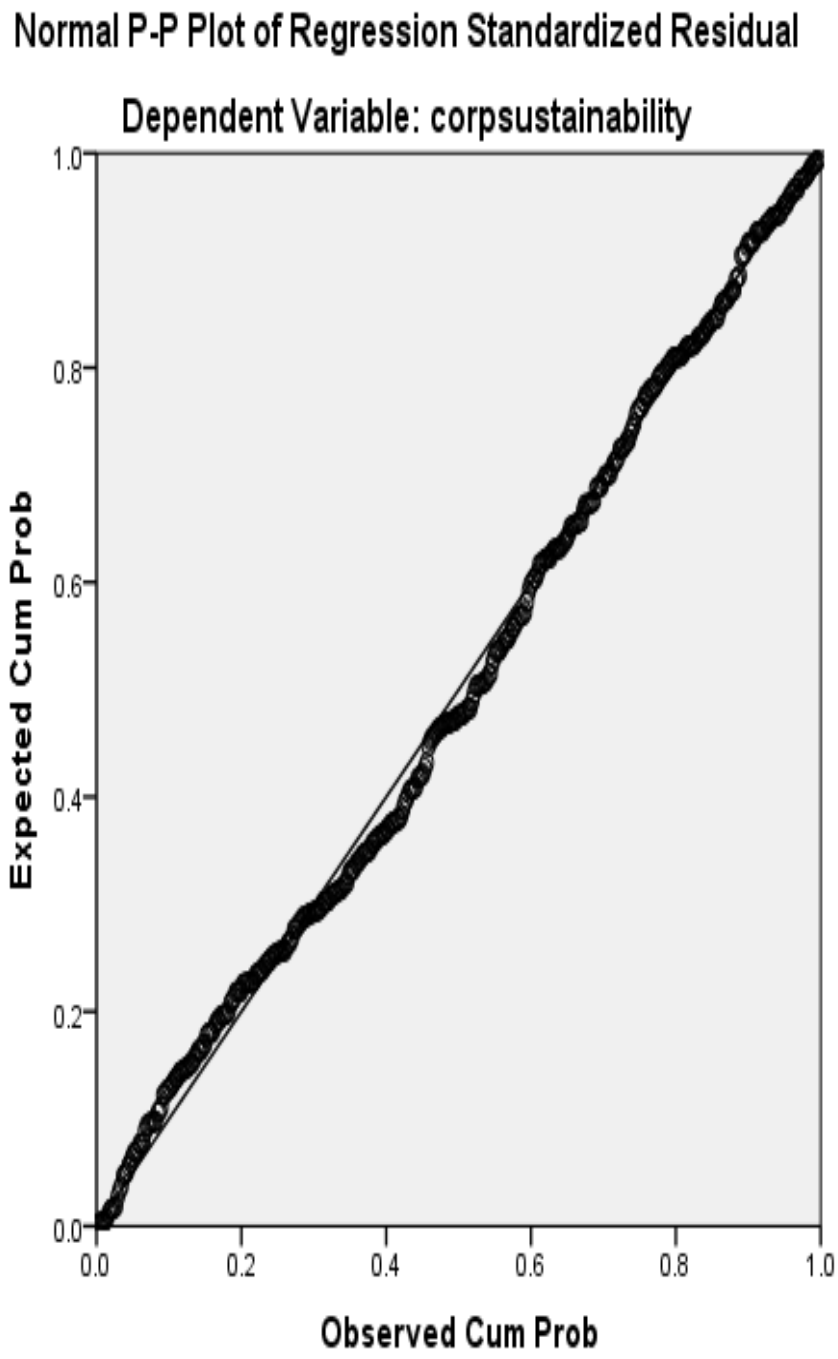
1.	Mawara Investments Ltd – Maakiou Estate
2.	Valentine Growers Company Ltd
3.	Sasini Coffee Growers Ltd

Hope this information will be useful for your research.

Yours faithfully

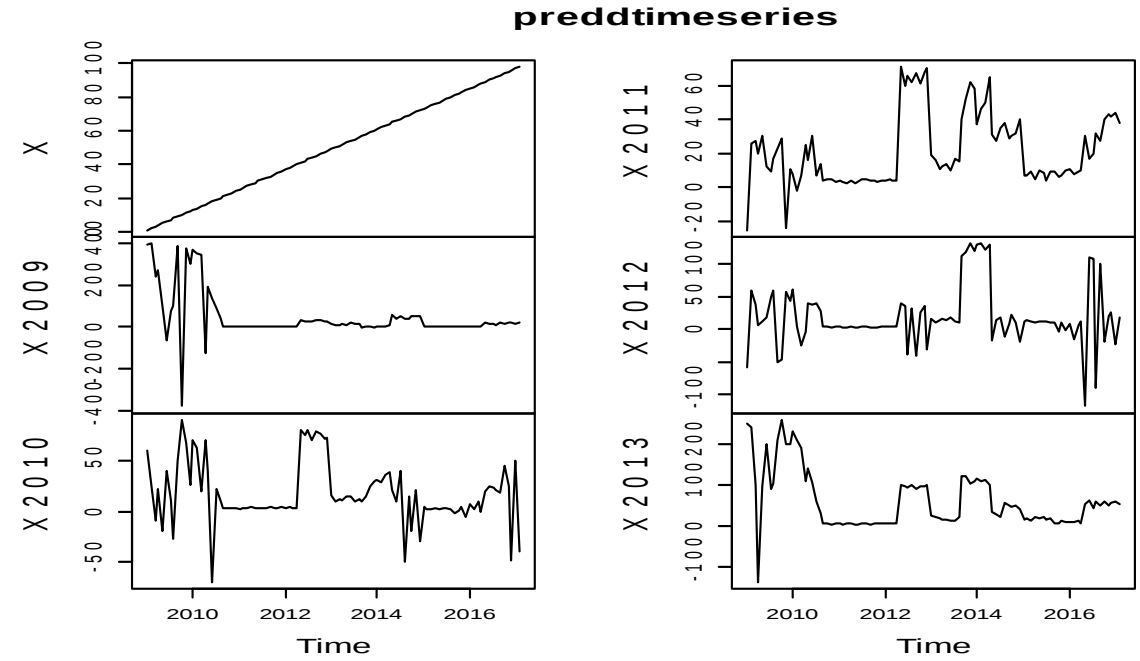
Wesley K Siele
EXECUTIVE OFFICER

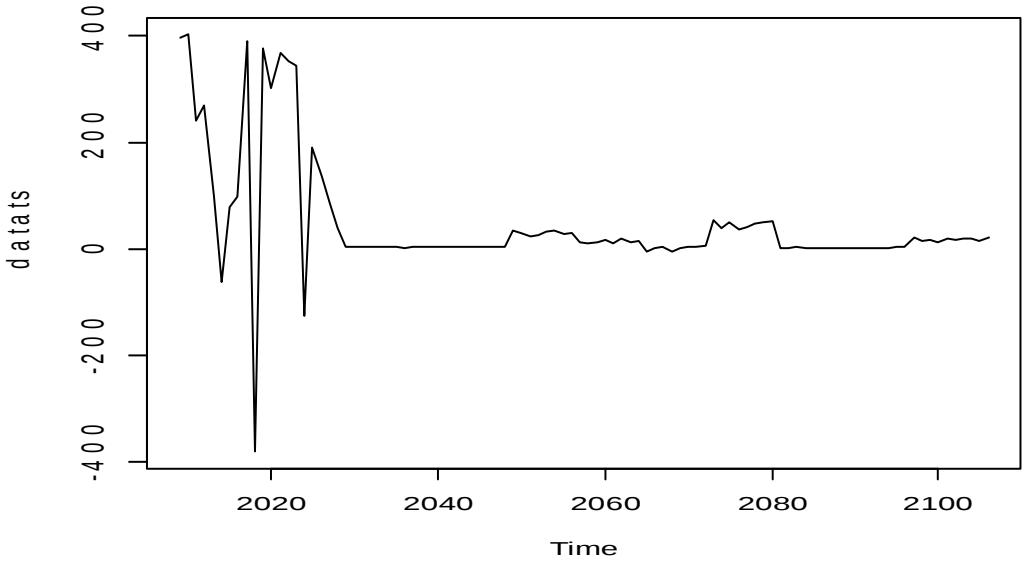
Appendix 8: Scatterplots



Appendix 9: Profit, Labour Turnover And ECSR Expenditure Graphs

Profits against Environmental Corporate Social Responsibility Expenditure





Employee Turnover against Environmental Corporate Social Responsibility Expenditure