

**THE EFFECTS OF ENVIRONMENTAL CONSERVATION EFFORTS ON
FINANCIAL PERFORMANCE: A CASE STUDY OF THE INDUSTRIAL AND
ALLIED SECTOR**

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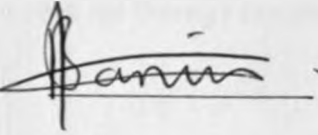
**A Management Research Project Submitted in Partial Fulfilment of the Degree
of Master of Business Administration (MBA), School of Business.**

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DECLARATION

This management research project is my work and has not been presented for a degree award in any other university.

Signature 

Date 23/11/2009

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I certify that the management research project has been submitted for examination with my approval as the university supervisor.

Signature 
Peter Ngige

Date 23RD NOV 2009

' DEDICATION

I dedicate this work to my father for inspiring me to go an extra mile in my career. His motivation has seen me through my studies.

ACKNOWLEDGEMENT

This work would not have been successful without the support of several important persons. Specifically I thank my sibling; Jane and Douglas, for their support morally and financially during the time of my studies culminating into this piece of work. I feel blessed to have them by my side.

Special thanks to My Supervisor, Peter Ngigi and the entire accounting/finance Department for their never ending support. I have learned a lot from the team of instructors from the accounting department.

In addition, I would like to extend my gratitude to my friends; Kioko, Caroli, Alex and many others with whom we shared many lessons. Lastly, I acknowledged the hand of the almighty God for his never ending love and care.

ABSTRACT

The purpose of this study was to determine the impact of environmental conservation on financial performance of organizations' management. The study was done using the exploratory design method. The target population were all the 18 public listed companies under industrial and allied segment in Kenya. A census of all the 18 companies was therefore conducted. Both closed and open ended questionnaires were used to collect primary data from the officers of the company of the selected companies. The raw data from the field was analyzed using descriptive statistics. Data was presented in percentages and cross tabulation.

The study found that in most organizations, sustainable environmental conservation development was considered an organizational important goal. Thus organizations practiced environmental ethics, management and safety practices, such as energy reduction, waste reduction, waste water reduction, adhering to statutory legislation environmental conservation by investing in technology which minimize environmental impact of operation and production and planting trees. The study revealed that organizations spend great much resource in conserving the environment; by upgrading machines and infrastructure to meet the environmental conservation standards, sponsoring environmental conservation, and environmental rehabilitation programs. Environmental conservation activities engaged included; land rehabilitation through reforestation, Mau forest reforestation, tree campaign of UNEP, ECO challenge campaign, waste disposal management, and tree planting activities.

The study revealed that organizations' expenses incurred for the last three years in environmental conservation had promoted organizations profitability, indirect benefits i.e. improved organization image. Further, the environment conservation programs affected management and financial decisions as well as management strategies. Therefore, budgeting process was affected, though at a small extent. The study revealed that more than half of the respondents indicated that their firm performance indicators profitability, liquidity, solvency and debt ration were within the expected limits. The study showed that environmental conservation effort had no great effect on the marketability of firm's stock and cost of capital, apart from effect on the firm

stocks and cost of capital. Moreover, environmental conservation had affected firms' equity and debt.

The following recommendations based on the study findings were made;

Industrial and allied sector need to develop a strong financial policy guiding the environmental conservation since the current study established that only a few firms had policy guiding environmental conservation. This will go along in reducing competition with the wealth maximisation goal of a firm. This will also guide the organisation financial decisions.

With the growing concern for 'carbon credit', "green goals" and environmental sustainable production, industrial and allied sector should tap into this potential thereby attracting strategic investors and potential financiers through internal certification on environmental management systems. This will also lead to organisation enjoying financial subsidies as results of these efforts.

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ABBREVIATIONS AND ACRONYMS

CCS:	Carbon Capture and Sequestration
CDM:	Carbon Trading Mechanism
GHGs:	Greenhouse Gases
HFCs:	Hydro Fluorocarbons
KCCWG:	Kenya Climate Change Working Group
UNEP:	United Nation Environmental Program
WWF:	World Wildlife Foundation

CHAPTER ONE: INTRODUCTION

1.1 Background

Natural environment conservation has become a topical issue that is being discussed every day in almost all spheres of life. This has not escaped the business community, as businesses and industries are the major cause of pollution and degradation of the natural environment. Shrivastava (1995) notes that for the global economy to become ecologically sustainable, it is necessary to organize business and industry along ecologically sound principles. This will require transformation of corporations, their products, production systems and management practices.

The awareness for environmental problems has generally grown. Meanwhile, the perspectives from which environmental problems are discussed have been modified or supplemented considerably: during the nineteen seventies, people were primarily concerned about the depletion of natural resources, i.e. a scarcity problem on the input side of the economy. In the nineteen eighties the degradation of nature by polluting substances and waste (the undesired outputs of economy) were added as environmental themes (Pagiola, et al 2004).

Burning of fossil fuels is a major source of industrial greenhouse gas emissions, especially for power, cement, steel, textile, fertilizer industries which rely on fossil fuels. The major greenhouse gases emitted by these industries are carbon dioxide, methane, nitrous oxide, hydro fluorocarbons (HFCs) which increase the atmosphere's ability to trap infrared energy and thus affects climate adversely (Nelson, et al 2009).

Most large manufacturing firms have devoted significant time and resources to environmental conservation. This is important as it allows industry to develop appropriate corporate policies through the application of total quality environmental conservation processes or the redesign of products and manufacturing technologies (Shrivastava, 1995). Among the stakeholders in environmental conservation, corporations seem to be caught in the middle in the conservation arena simply because these firms are the ones who own most of the projects, their returns and positioning. Weber, et al (2008) asserts that the private sector and environment

security are linked in many ways, most obviously because thriving markets and human environment security go hand in hand. Global corporations can do more than simply endorse the virtues of the market, however, their active support for better corporate governance and financial policies can help create environments in which both markets and human security flourish (World Wildlife Foundation [WWF], 2007).

Carbon Credits are key components of national and international attempts to mitigate the growth in concentrations of greenhouse gases (GHGs). One carbon credit is usually equal to one ton of carbon. Carbon trading is an application of an emissions trading approach. Greenhouse gas emissions are capped and then markets are used to allocate the emissions among the group of regulated sources. The idea is to allow market mechanisms to drive industrial and commercial processes in the direction of low emissions or less “carbon intensive” approaches than are used when there is no cost of emitting carbon dioxide and other GHGs into the atmosphere. Since GHGs mitigation projects generate credits, this approach can be used to finance carbon reduction schemes between trading partners and around the world (Nelson, et al 2009).

Corporate finance is a branch of finance that deals with the corporation's financial decisions and the tools used to make these decisions. The primary goal of corporate finance is to maximize corporate value (shareholders' wealth) while managing the firm's financial risks. Corporate finance can be divided into long-term and short-term decisions and techniques. Capital investment decisions are long-term choices about projects investment; whether to finance that investment with equity or debt, and when or whether to pay dividends to shareholders. The short term decisions helps in managing the working capital i.e. the balance of current assets and current liabilities. Corporate finance is also associated with investment banking. The typical role of an investment banker is to evaluate company's financial needs and raise the appropriate type of capital that best fits those needs (Grinblatt, et al 2002).

Shrivastavea, (1995) introduced the concept of environmental technologies and argues that regardless of whether environmental regulation hurt or helps industry, environmental conservation help influence competitive behaviour of firms and competitive dynamics of industries by imposing new costs, investment demands and

opportunities for improving production and energy efficiency. Solow, (1991) stated that a better understanding of the interconnections between ecology and economics i.e. the knowledge on the environmentally neutral asset should be emphasized since it contribute to the future of organizations.

Walley and Whitehead, (1994) cautioned the incorporation of environmental concerns into strategic decision making, because it may be hazardous for the corporation's financial well-being. Walley and Whitehead, (1994) advocate for a return to strict cost-benefit frameworks, investing in environmental practices that have paybacks within an economic time frame through reduced costs of regulatory compliance, lower waste disposal, energy, and material savings.

The importance of environment conservation and the possible paradigm shift of how business is done in Kenya in relation to the natural environment remains a green area of study. Otherwise, in the near future the firms' goal of investors wealth maximization will still surmount other goal in the face of unsustainable development characterised by global warming and deteriorating climatic conditions (Ngethe, 2006). Already groups such as Kenya Climate Change Working Group (KCCWG) are pushing for environmental compensation worth Ksh. 200 billion from developed countries which have greatly contributed to global warming and changing climatic conditions.

According to Rubino (2000) business has reasons to conservation; sustainable use or dependence on biological resource. This is simply because most businesses have a direct or indirect link to production of raw materials which can either be in form of renewable or non renewable resources. To ensure sustainable use of these natural materials, conservation of the natural environment is paramount. It is therefore increasingly evident that the natural environment conservation is pivotal in an organizations decision making.

Poor people in developing countries are most affected by the continuing loss of critical ecological services. Nearly 1.3 billion people in developing economies live on lands prone to degradation and water stress or in upland areas, forest systems, dry

lands and similar fragile environments. These result into lack of access to sufficient clean water and basic sanitation and low cost of living standards (WWF, 2007).

Finance as a discipline cannot be removed from conservation efforts as global integration of the world financial markets is progressing at a fast rate and in some instances it has fostered and /or accelerated the degradation of natural environments. Though financing some investments have resulted in accelerated degradation of the natural environment in the developing countries (White, 1996). For example without finance some of the poor African countries would not able to do exploration and extraction of oil in their offshore and inland wells. Hence, conservation finance strategies must be put in place to ensure sustainable financing for conservation objectives in the long-term beyond the lifespan of the project. Conservation finance goes beyond traditional government or donor funding by introducing innovative market based strategies such as debt-for-nature swaps, environmental swaps, and payment for ecosystem services (WWF, 2007).

1.2 Statement of the Problem

Change always creates opportunity for success. Companies that prepare for the new world of intense regulation of environmental impacts will become relatively more competitive. Conservation of the natural environment is critical in all spheres of life. In the corporate world this realisation is even more evident due to various initiatives being undertaken by the businesses.

Since the environmental conservation involves huge outlay of capital, which can threaten the sole reason for existence of corporations, the corporate world needs to come up with financial measures to deal with environmental conservation. In addition, the implications of conservation efforts on financial gains need to be established to enable the corporate world better deal with it in future (White, 1996). In Kenya, firms are arguably more reactive when it comes to environmental conservation

In Kenya, the environmental conservation efforts seem to be disjointed from the financial aspects. So far no concrete work in Kenya has been done to unearth any underlying trends by corporations in the fight against environmental degradation. In

the face of increased awareness and need to conserve the environment, the developing world will arrive at where the developed world is; even through stringent legislation, stiffer pollution penalties, and increased cost of capital associated with pollutant projects (Wahba, 2009).

In corporate management there are problems; conflict of interest between government institutions, costs versus benefits analysis, and lack of well stated goals in financial actions regarding environmental conservation (Hart, and Ahuja, 1996). It would be interesting to establish the priorities, determine the proactive and reactive strategies being implemented by corporations in Kenya and their effect on the firms' ultimate goal of shareholders wealth maximization. Hence this research will seek to find out the effect of environmental conservation on corporate financial policy.

1.3 Objective of the Study

To determine ways in which environmental conservation is impacting financial performance of organizations' management of companies listed in the industrial and allied sector of NSE.

1.4 Importance of the study

Implementation of environmental conservation strategies is important in achievement of sustainable development. If the historical rate of exploitation on natural resources continues, corporations and general populations will cease to exist since non renewable resources have been exploited without consideration for conservation through innovations into more sustainable production methods.

Hence, there is need then to come up with financial policies geared towards environmental conservation strategies. These strategies will contribute to the sustainability of the conservation projects and programs by ensuring financial resources are available to deliver conservation results in the long-term. Conservation financial strategies do more by way of developing markets for ecosystem services e.g. tourism, attract private sector capital and lead to more government engagement (WWF, 2007).

General Public

From this study the public will be made aware about the green future objective, the

need to conserve the natural environment and the link between the firm's goal and degradation. The public will have the chance to identify the natural environment conservation strategies adopted by their companies.

The government

Results of this study can be used in the legislation and regulation against degradation of the natural environment. These will be formed by identifying the best practices and adopting them through enforcement.

Managers

To the businesses this study will provide a starting point for formulation of financial goal that are congruent to natural environment conservation strategies by creating more awareness of importance of natural environment conservation by businesses. It will also re-affirm or otherwise discern the supreme goal of the firm.

Financial Institutions

It will create awareness for the need to innovate and provide products that are geared towards conservation of the natural environment. In Kenya there is need to come up with products aimed at conservation strategies that best suit financial systems. These new products could cut across carbon trading agreements, conservation bonds, earmarked taxes, debt-for-nature swaps, government bonds or/and for profit investment funds. This study will serve as a starting point in development of such products. In addition, this research project will also highlight the importance of involvement of financial institutions in environmental performance of their borrowing clients. In fact, in western countries lenders can be held accountable for degradation by their borrowers.

Academicians

As an exploratory study the research will provide academicians with a start to deeper studies on role of finance discipline in natural environment conservation, the relationship between green future objective cost of capital, investment risk and firms goal of shareholders wealth maximization.

Investors

Ethical investors who are more receptive to environmentally friendly investments will appreciate more the need to channel their investments to sustainable development and the need to balance between sustainable development and conservation.

CHAPTER TWO: LITERATURE REVIEW

2.1 The Main Goal of a Firm

The primary objective of a firm is the maximization of the shareholders wealth (Brealy, et al (2007). Accordingly other goals come second and include; maximization of profits, ethics and management objective. The primary goal of the firm is to maximize the shareholders wealth since without achievement of this goal the shareholder will no doubt take his investments elsewhere with a higher return. Increase or/ Maximization of profits however does not necessarily mean growth in the shareholders wealth. Profits which are not sustainable do not lead to increase in shareholders wealth. After all profit is an accounting figure for a particular period and does not involve cash outflows.

Shareholders wealth maximization goal theory is a contemporary theory. According to Kochan et al (2000) during the early days of America as a nation corporations were expected to exist for the public good but considerable theorizing and experimentation brought alternative forms of organization where certain groups' interest were prioritized and internalized. This according to him is getting out of fashion and the earlier idea is "in the air".

According to White (1996), the field of finance is generally involved in channelling savings into investments. This is done by creating financial instruments which are traded in financial markets. It is usually divided into three areas; corporate finance; concerned with financing and investment decisions of firms, investments; concerned with getting highest return at minimum risk and financial institution/markets; concerned with management of financial institutions. Environmental finance concerns the effects of environmental conservation on financial decision making (White, 1996). According to him this is essentially a three step process; identifying risks and opportunities, identifying various alternatives of increasing value/reducing risk and lastly making decisions based on knowledge of costs and benefits.

The key to financial sustainability in environmental conservation is designing mechanisms aimed at diversifying sources of finance. Second generation economists recognise forms of capital as consisting; natural capital, human capital and manufactured capital (factories, buildings and tools). According to White (1996) the

role of finance is to use financial capital to transform one form of capital to the other. In addition, an individual's choice concerning the form of capital to hold and how much to consume and how much to save are ultimately responsible for the depletion or preservation of natural resources.

2.1.1 Financial performance Measures

Performance measures are the process of assessing the progress made (actual) towards achieving the predetermined goals (baseline). Measurement is managed using output measures and outcome measures. Performance measures should identify the population to be measured, the method of the measurement, and the data source and time period for the measurement. Each measure should also be: objective, easy to understand, controllable by minimizing outside influences, timely, accurate, cost-effective, motivating and traceable. Performance measures are quantitative or qualitative ways to characterize and define Performance. They provide a tool for organizations to manage progress towards achieving predetermined goals, defining key indicators of organizational Performance and Customer satisfaction (Williams, 1998).

The importance of performance measurement has increased in the recent past with the realization that the prosperity of any organization requires the meeting of the needs of all stakeholders and therefore measuring financial performance (Williams (1998). Since the early 1980's, there has been a general move away from the traditional financial measurement which is generally irrelevant for decision making. This was accelerated in the 1990's and 2000's by the worldwide acceptance of the "Business Excellence Models (BEM)" and performance measurement frameworks that address all stakeholders' needs. BEM's encourage the use of performance measures in addition to, and more importantly, consider the design of performance measurement systems to ensure that measures are aligned to strategy, while ensuring that the system is working effectively in monitoring, communicating, and driving performance. Most performance measurement schemes focus on short-term determinants the activities that bear returns only after many years cannot be included in the performance measures because of the limited timeframe for performance review cycles.

Ratio analysis, a means of financial performance measurement, is one of the tools used by financial analysts for making decisions regarding credit and investments. It utilizes the data found in financial statements to determine a company's financial position (Dobbins, et al. 2000). Analysts will compare the company's ratios to its past performance, as well as to industry statistics to determine risks, and trends. These ratios or financial performance indicators (FPI) can be divided into three main groups: Profitability (operating) ratios, which gauge a company's operating success over a given period of time; Liquidity ratios, which measure the short-term ability of a company to pay its debts and to meet unexpected cash needs; and Solvency ratios, which indicate a company's ability to meet long-term commitments on a continuing basis (Miller, et al. 2001).this study will determine the two ratios ie profitability and liquidity ratios.

The financial performance indicators differ depending on the nature of the organization and the organization's strategy. They help to evaluate the progress of an organization towards its vision and long-term goals, especially toward difficult to quantify knowledge-based goals (David, 2007).

2.1.2 Profitability Ratios

Profitability ratios offer several different measures of the success of the firm at generating profits (Rozeff, 1982).

The gross profit margin is a measure of the gross profit earned on sales. The gross profit mark up considers the firm's cost of goods sold, but does not include other costs.

2.1.3 Liquidity Ratios

Liquidity ratios provide information about a firm's ability to meet its short-term financial obligations. They are of particular interest to those extending short-term credit to the firm. Two frequently-used liquidity ratios are the current ratio (or working capital ratio) and the quick ratio (David, 2007).

The current ratio is the ratio of current assets to current liabilities:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Short-term creditors prefer a high current ratio since it reduces credit risk. Shareholders may prefer a lower current ratio so that more of the firm's assets are working to grow the business. Typical values for the current ratio vary by firm and industry. For example, firms in cyclical industries may maintain a higher current ratio in order to remain solvent during downturns (Miller, et al. 2001).

2.1.4 Solvency ratio

Solvency ratio is one of many ratios used to measure a company's ability to meet long-term obligations. The solvency ratio measures the size of a company's after-tax income; excluding non-cash depreciation expenses, as compared to the firm's total debt obligations. It provides a measurement of how likely a company will be to continue meeting its debt obligations (Miller, et al. 2001).

The measure is usually calculated as follows:

$$\text{Solvency Ratio} = \frac{\text{After Tax Net Profit} + \text{Depreciation}}{\text{Long Term Liabilities} + \text{Short Term Liabilities}}$$

The debt ratio is defined as total debt divided by total assets:

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

The debt-to-equity ratio is total debt divided by total equity:

$$\text{Debt-to-Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Debt ratios depend on the classification of long-term leases and on the classification of some items as long-term debt or equity.

2.2 Organizational Environmental Responsiveness

Arguably the overriding corporate objective is shareholder wealth maximization and managers consider improving shareholder value an important mission. However, corporations are owned by individual shareholders who impose their will on the company policies through the Board of Directors and the management. Although

some investors referred to as ethical investors prefer firms with conservation strategies some investors prefer firms who do not spend on conservation efforts hence share prices of such firms are likely to fall decreasing the shareholders value (White, 1996).

It follows then that some managers perceive environmental conservation efforts as a distraction towards realization of this objective. However, Sharma and Vredenburg (1998) found that proactive companies towards environmental conservation perceived a number of benefits emerging from environmental response such as lower cost of processes/inputs/products, innovations in processes/products/ systems, improved corporate reputation and a good reputation with a wide range of stakeholders.

2.3 Corporate social responsibility

Corporate social performance is a form of corporate self-regulation integrated into a business model. CSR is the deliberate inclusion of public interest into corporate decision-making, and the honouring of a triple bottom line. By tapping into the substantial financial resources of the private sector, for-profit investments can be structured to provide financial returns for investors while promoting corporate social responsibility and environmental conservation. These investment funds channel capital debt or equity – into environmentally-sustainable enterprises or ventures. In this way, these funds can provide both a direct financial benefit through a sustainable financing model and can also promote adherence to environmental standards for use of resources. In effect, if done well, such funds provide a triple bottom line benefit to their investors and to conservation.

The link between corporate environmental performance and financial performance is currently receiving increasing attention, in the business community. A large number of papers present arguments supporting the view that improved environmental performance is profitable challenging the more 'traditional' view that corporate environmental protection primarily increases the costs of the firm Konar and Cohen (2001), Schaltegger and Figge (1997). The empirical studies, financial and environmental, indicate that there is a considerable uncertainty about the relation between environmental performance and economic performance. A number of studies have also investigated the link between economic performance and the broader social

performance. The general impression is that there is no significant difference in economic performance due to different social performance.

Most research on the environmental-economic performance relationship has been predicated on the idea that (internal) strategic environmental investments result in improved resource efficiency (Bansal and Roth, 2000; Branzei *et al.*, 2004; Buysse and Verbeke, 2003). While the effects of such strategic choices are often clear even to the financial markets, internal investments are not the only phenomena that drive organizational performance. Institutional and other external factors also have a profound effect on the performance (survival) of firms (Singh, Tucker, and House, 1986). While several researchers have examined how the stock market reacts to improved environmental performance through market returns (e.g., Dowell *et al.*, 2000; Gottsman and Kessler, 1998; Mahapatra, 1984), little attention has been paid to such external influences on the environmental-economic performance relationship itself. There is evidence in the literature that investors and analysts take account of improvement in environmental risk factors when making investment decisions and recommendations (Heinkel, Kraus, and Zechner, 2001; Mackey, Mackey, and Barney, 2007). This improved perception should, in turn, cause the financial market to be willing to accept lower risk premiums on equity, or allow the firm to acquire higher levels of leverage, all of which can result in a lowered cost of capital overall. The value of the firm can be increased due to either or both of these effects.

2.4 Economic theory and the Environment

Physical environment has been taken for granted because it has been an abundant public good. Public goods and services benefit all members of society. Since no individual owns the resource a private price cannot be determined. Decisions about public goods are therefore political since there is no private market mechanism to regulate them. The current environmental situation provides a rationale for ongoing economic education. The environment is a political problem because the number of carbon emissions is not a private good. Controversy and conflict over how to proceed are an integral part of the political process. Those suggesting a market solution to environmental degradation is best may be revealing a lack of economic understanding.

In 1968, Garrett Hardin (1968) produced an essay that helped an entire generation of economic students contemplate the problem of public goods entitled “The Tragedy of the Commons.” He assumed an imagination of a common pasture shared by many shepherds. Each has a private incentive to increase the size of their flock whenever they can. Whenever a shepherd can do this, they get the full benefit of the extra animal. All the shepherds incur a small cost arising from the stress the additional animal puts on the pasture. Obviously the process can proceed until the pasture becomes so degraded that its ability to support the herds is greatly diminished. The immediate individual incentive leads to a tragedy that could only be avoided if there was a collective way to communicate to each shepherd the full cost of the decision to add an animal to their herd.

Economists refer to the cost from the stress on the pasture born by others, but caused by an individual increase in use of the pasture, as an “externality.” The individual shepherd may not be aware of, or even able to compute, the costs of his decision to the whole community. It is hard and expensive to get that kind of information. The environment may be thought of as a global commons. Human activity creates a stress on the environment. In this context carbon credits are a rational way to turn a public good into a private property. Everyone does not have to understand global warming for the mechanism to work. The external costs of individual actions are incorporated into individual decisions regardless of political affiliation or private beliefs. Unless there is some other unforeseen development that diminishes the desire to produce more carbon than the planet can absorb, the carbon market has a high probability of developing into an important economic reality.

Understanding the economic dynamics will help business professionals advocate for better public policy responses. Accountants have the benefit of economic education as well as practical experience concerning the operation of market and other regulatory mechanisms. Accounting professionals may find discussions about public goods difficult. They believe in private markets. Most economic activity fits into this category. The environment, national defense, and public infrastructure do not. There is no way, except through government and taxation, to ensure this good is provided to a level that maximizes societies benefit. A different discussion is required for public goods. Many business leaders angst over the political attention devoted to

environmental regulation. However the government is the correct place for this discourse. Accounting professionals can reduce the business angst by making statements about the environment within the paradigm of public goods. Forward thinking professionals cannot allow free riding citizens, companies, or countries to drag us into a crisis. The “drop-in-the-bucket” mindset has to be replaced with a more enlightened position. Public action can cause the environmental costs of carbon emissions to be internalized by everyone. The free rider advantage has to be taken away. Accountants can help business leaders make a contribution to policy formulation by turning their energy into creating effective markets and practical disclosure requirements.

2.5 Environmental Risk

The natural environment poses risk in the financial policy and the strategic policy at large. Even without granting the natural environment a stockholder’s status like suggested by Shrivastava (1995) natural environment poses a significant level of risk. Without taking necessary steps to manage this risk in the corporate financial decision making is likely to increase financing costs or/and decrease investment returns.

For investors, failure of the management to forecast the effects of increased conservation concern on the investments will impact negatively on the ability to invest in profitable firms. Banks and others financial institutions them too are addressing increased credit risks arising from a borrower's environmental exposure and weighing the advantages of 'eco-banking' (Shrivastava, 1995). In addition, sustainability criteria can be used to predict the financial performance of a debtor and improve predictive validity of the credit rating process (Weber, et al 2008).

Adjusting Business for Environmental Risk

Shafman and Fernando, (2007) postulated that failure to manage businesses' environmental risk increases the cost of capital though; consumer backlash through loss of consumer goodwill, functionality change to achieve better environmental performance through process modification exposes the firm to more risk, and lastly liability for environmental incidences such as oil spill.

Discounting the Future in Environmental Finance

This concept where risks and uncertainties about future costs and benefits are best handled by discounting seems to be inconsistent with conservation because it discriminates against the future generations by highly discounting costs and benefits leading to faster depletion of resources (Weber, et al 2008). Shafman & Fernando (2007) found out that firms that develop a strategy that improves their total risk management through better environmental risk management are rewarded by financial markets for their efforts since more individuals are more interested in environmental performers' stock further driving down cost of equity capital.

2.6 Corporate Finance and the Environment

Attempts to integrate environmental concerns into the corporate finance function are against a central doctrine of finance: the alleged goal of the financial manager is to maximize shareholder wealth. In a capitalistic system, those who contribute capital to an economic enterprise are entitled to special treatment by virtue of their ownership position (Friedman, 1970; Malkiel and Quandt, 1971). A corporation, though a legal entity in its own right, is nonetheless owned by its shareholders, who work their collective will through the firm's board of directors and management team. Firms engaging in behaviors not providing direct benefits to shareholders, e.g. employing more environmentally sound but higher cost production processes or donating a portion of profits to environmental organizations, should earn investment returns inferior to businesses pursuing less lofty goals, and share prices are likely to fall, decreasing shareholder wealth.

Today, very few firms are quick to admit that they pursue the hard-line maximization of shareholder wealth. Managers are much more likely to adopt some variant of the stakeholder paradigm, in which business is considered a contract between many parties (Freeman, 1984; Cornell and Shapiro, 1987). Management's response to the firm's stakeholders, comprising customers, employees, suppliers, shareholders, and competitors depends on the relative importance of a particular stakeholder to the company's overall strategy. If the natural environment is granted stakeholder status, as some scholars argue (Hart, 1995; Shrivastava, 1995a, 1995b), corporate decision-making becomes much more difficult.

2.7 Finance Mechanisms

Environmental funds

These are basically trust funds or foundations designed as a way of conserving through long term financing for protected areas, biodiversity conservation or other environmental conservation. Such funds are independent and have an independent board to ensure such funds are used for the purposes intended. Such funds can be set up as endowments, sinking, revolving funds or a combination of the three. Koelner et al (2005) defines these funds in broadest terms as ethical funds to eco efficiency funds focusing on cleaner technology to sustainability funds which take ecological, social cultural, ethical and economic aspects into account. White (1996) defines environmental funds as funds investing in companies involved in the environmental services and hazardous waste disposal industries.

Payment for Ecosystem Services

Humans obtain services from nature including system stabilization, provision of drinking water, fish and shellfish, production, hunting, other food products ,bio prospecting, crop pollination and landscape beauty. The idea is that users of environmental services should compensate those who are responsible for provision of ecosystem services. Carbon credit trading is a good example of payment for ecosystem services where payments are made to those who maintain earth cover and help reduce carbon emissions. Carbon trading is a mechanism under CDM of Kyoto Protocol (Bradford, et al 2008).

Sustainability Rating of Investment Funds

There is need for investors with conservation goals to compare and asses the variety of funds on the basis of both financial and non financial aspects. Unlike methods for assessing financial performance, ecological and social performance measures are not well developed, Koellner et al (2005). Investment funds are rated by independent agencies based on time series of risk adjusted returns on investments. Koeller, et al (2005) suggest problems in sustainability rating as being; value setting, methodological choices and information access. They conclude by saying that sustainability rating very much depends on decision makers' intentions.

Integrated Valuation of Ecosystem Services and Trade Offs

This is a spatially explicit modelling tool of quantifying the levels and value of ecosystem services aimed at incorporating these services into resource management decisions by predicting changes in ecosystem services, biodiversity conservation and commodity (Nelson, et al 2009).

2.8 Reducing the Carbon Dependency

Reducing carbon dependency is not just about averting global warming. An increasing number of studies have emphasized the importance of reducing fossil fuel use to enhance national and global energy security. In high income and large emerging market economies, policies to improve energy efficiency and conservation, expand clean energy supply options and improve the sustainability of transport can boost important economic sectors. According to the economic and trade branch of United Nation Environmental Program (UNEP) world economic recovery can be caused by investing in these energy efficiency and renewable energy strategies; retrofitting houses to improve energy efficiency, expanding mass transit and freight rail, constructing a smart grid transmission system, and developing renewable energy.

2.8.1 Energy Supply Alternatives

Advocates for the coal industry have argued that new technologies may result to even heavy pollution. Thus, “clean coal” is a frequently used term for efforts to reduce the carbon emissions associated with coal use. From mining to burning coal to produce electricity, this is still an industry with disastrous environmental and health impacts. Coal mining especially where companies blast away entire mountaintops in order to lay bare deposits of coal is unalterably environmentally destructive. For many workers, coal mining remains a dangerous and unhealthy occupation.

Climate-mitigation strategies are appropriate ways of minimizing or neutralizing carbon emissions from already existing coal plants. Carbon capture and sequestration (CCS) might be of help in this regard, though many questions remain concerning feasibility and cost (Chafe and French, 2008). According to Nelson, et al (2009), it is possible to disseminate photovoltaic (PV) solar home systems, biogas facilities and improved cooking stoves to over 200,000 poor households. Further, low-carbon

strategies in the transport sector that target the next generation of bio-fuels, development of fuel-efficient motor vehicles and expansion of urban public transit and rail networks also have the potential to stimulate appropriate environmental conservation financial policies.

2.9 Management practices

Firms are adopting environmental management practices in reaction to the rise in environmental legislation, concern over liability, the direct and indirect costs of regulatory compliance, concern about overall firm competitiveness, and public concern about environmental degradation (Gottlieb, 1995; Porter and van der Linde, 1995). These management practices include environmental audits, total quality management, pollution prevention plans, environmental training for employees, total cost accounting, life-cycle analysis, hiring a designated environmental manager, R&D, environmental standards for suppliers, and employee incentive programs for environmental suggestions (Dorfman et al., 1992; Garrod and Chadwick, 1996; Maxwell et al., 1993; Shrivastava, 1996; Smart, 1992a). Several researchers have surveyed firms' adoption of environmental management practices (Florida, 1996; Garrod and Chadwick, 1996; Griffin, 1995; Heffelman, 1995; KPMG, 1997), identifying significant adoption of environmental management practices among the firms studied. These studies reveal broad trends of adoption of environmental practices across industrial sectors and firm sizes.

2.10 Organisation performance

Several researchers studying environmental management claim that the adoption of environmental management practices will lead to increased profits and improved environmental performance (Clarke, 1994; Hart, 1997; Moore and Miller, 1994; Office of Technology Assessment, 1994; Porter and van der Linde, 1995). These researchers claim that industry's adoption of environmental management practices is a transformation in business decision making, and firms are realizing the significant role that environmental performance can play in overall business performance (Hart, 1997; Hart and Ahuja, 1994). For example, firms use improved environmental performance to lower their costs by reducing waste in their production processes (Shrivastava, 1996). Firms are also reducing their environmental compliance costs

and lessening the threat of civil and criminal liability for polluting by preventing pollution at the source (Baram and Partan, 1990). Firms are restructuring their approach toward environmental management from pollution control to pollution prevention (Gottlieb et al., 1995). Firms are including environmental objectives in production planning and operations so that environmental performance is a consideration during every stage of operation (Williams et al., 1993). Firms are also restructuring their relationships for improved environmental performance and turning to suppliers and customers for information about and assistance with pollution prevention (Cramer and Schot, 1993; Frosch, 1994). They are forming partnerships with these parties to seek solutions to environmental problems. The most innovative solutions to environmental problems often involve the entire life cycle of products. Therefore, firms are re-examining their supply chain to achieve significant and lasting improvements to their environmental performance (Cramer and Schot, 1993) claim firms are increasing their profits and improving their environmental performance by focusing on resource productivity. They state that "resource inefficiencies are most obvious within a company in the form of incomplete material utilization and poor process controls, which results in unnecessary waste, defects, and stored materials" (Porter and van der Lunde, 1995). In the chemical industry, researchers such as Buchholz (1998), identify firms that have increased their profitability by improving their environmental performance.

Firms have adopted a range of tools for environmental management, but it is unclear whether or not firms have incorporated basic environmental considerations into their strategic plans (Garrod and Chadwick, 1996). Instead, firms may have added environmental management tools without truly transforming their operations. These actions may be motivated by attempts to improve public image; some firms may not realize what it takes to restructure their thinking and operations in order to substantially improve their environmental performance (Gottlieb et al., 1995). Based on their survey of 26 firms spread between several industrial sectors, Garrod and Chadwick (1996) conclude that firms still focus their strategic approaches on customer satisfaction and profitability. They claim environmental issues are not a high priority for most firms.

Gottlieb et al. (1995) found that firms use green marketing to deflect environmental criticism of industry activities and develop new markets for their products. However,

most green marketing strategies failed to incorporate pollution prevention principles into product and process design. Rather, Gottlieb et al. (1995) claim that the majority of green marketing has involved exaggeration and contradictory information

2.11 Budgeting Process

A budget is a plan expressed in financial terms usually covering one year. Budgeting is a multi-purpose activity used for the allocation of resources in the best way possible in order to achieve the organization's objectives (Association of Certified Chartered Accountant-ACCA, 2004). A budget can also be described as an estimate of income and expenditure for a future period (Bannock and Manser, 2003). Budgets need to be prepared and approved in advance of the period in which they are to be used. Budgets can include some or all of income, expenditure, and the capital to be employed. Budgets, by definition, have to be prepared in advance, and for this reason, they are often referred to as being part of a feed forward system.

Planning involves the development of future objectives, and the formulation of steps to achieve the objectives. Control involves the means by which management ensures that all parts of the organization function properly, and attain the objectives set down in the planning stage. Good planning without effective control is time wasted. Budgetary control can therefore be described as a repetitive cycle: planning, activity and control followed by more planning, activity and control. Management Accountants have the responsibility of providing a feedback of control information within this budgetary control cycle (Garrison, 1976).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter highlights the overall research methodology that was adopted for the study. It was organised in five sections, which include; the research design; population and sample; data collection; and data analysis.

3.1 Research Design

This is the arrangement of conditions for collection and analysis of data in a way that combines their relationship with the purpose of research (Chadran 2004), it's the overall plan of conducting the study, this helped to answer the research questions and achieve the objective of the study.

Due to the lack of prior research on environmental financing in Kenya, the study adopted an exploratory design. So far no research work has been done in Kenya on the relationship between finance and natural environment conservation. According to Kerlinger (1973), the aim of exploratory design is to discover relationship among variables and to lay the groundwork for more systematic testing of hypothesis.

3.2 Population of Study

Mugenda and Mugenda (1999), describes a population as a complete set of individuals, cases or objects with some common observable characteristics. A target population on the other hand is that population to which the researcher wants to generalize the results of the study. The population consisted of all 18 public listed companies under industrial and allied segment in Kenya, with environmental financial policy. This study therefore conducted a census of all the 18 companies. One senior managers in finance and internal audit department were be sampled for the study.

3.3 Data Collection

The data consisted of responses from finance managers whose companies had environmental finance policy. The amounts used towards environmental conservation efforts directly or indirectly were ascertained for example; Budgeting process,

management strategies, expenditures and organisation performance (profitability). This helped to determine how these firms' financial strategies are being influenced by environmental conservation. Activities geared towards better environmentally friendly conservation methods formed an important part of the data. Both closed and open ended questionnaires were used to collect primary data from the manager of the selected companies. Interview data was triangulated with secondary data. Secondary data was collected from financial results and published materials for the periods 2004 to 2008 through qualitative content analysis.

3.4 Data Analysis

For quantitative data, the researcher used Statistical Package for Social Sciences (SPSS) to carry out data analysis. Both descriptive statistics were used in the analysis. The findings were presented in percentages, charts and frequency tables so as to demonstrate the various financing strategies. Questionnaires were analysed to identify the common practice and any emerging concept in Kenyan firms.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the data analysis, research findings and interpretation of study data. Raw data retrieved from the field was checked for completeness, errors, edited, coded and entered in Statistical Package for Social Sciences for analysis. This study was guided by the following specific objectives which included; effects of environmental conservation on the organisation expenditure; impact of environmental conservation on organisation performance and; also to establishing the effect of environmental conservation on organization management. The findings were presented in percentages, charts and frequency tables as presented in the following sub sections.

4.2 Respondents' Background Information

Background data of respondents pertaining to the duration of time respondents had been in the organization, organizations turnover for last three years, profit for last three years, organizations environmental ethics. This data was important as it explored respondents experience within the organisation as well deeper understanding of the participating organisation.

4.2.1 Duration of the Respondent in the Organization in Years

The number of years a respondent has worked in an organization is very important. A high number of years indicate that the respondent has a wider experience of the operations of that particular organization and therefore can give concrete information about the organization. This part of the study sought to find out the number of years the respondents had worked in their current organization. The results were as presented in the Table 4.1

Table 4.1: Respondents Duration in the Organization

Duration in years within the organisation	Distribution	
	Frequency	Percent
0-2 years	2	11
3-5years	7	40
6-10 years	6	33
Over 10 years	3	17
Total	18	100

From the results tabulated above, it is evident that a large proportion (39%) of the respondents in the study had been in the organization for a period between 3-5 years, while the least (11%) had been in the organization for less than 2 years. It can be concluded that over 70 per cent of the respondents in the study had over 3 years in the organization and therefore had immense information on the subject under study

4.2.2 Organization's Turnover Range

Organisation turnover is import as it shows the organisation effectiveness and hence high profitability levels. It is for this reason that the study sought in this part of the study sought to describe turnover for the participating organization. Results to this section are as presented in Table 4.2.

Table 4.2: Participating organization turnover levels

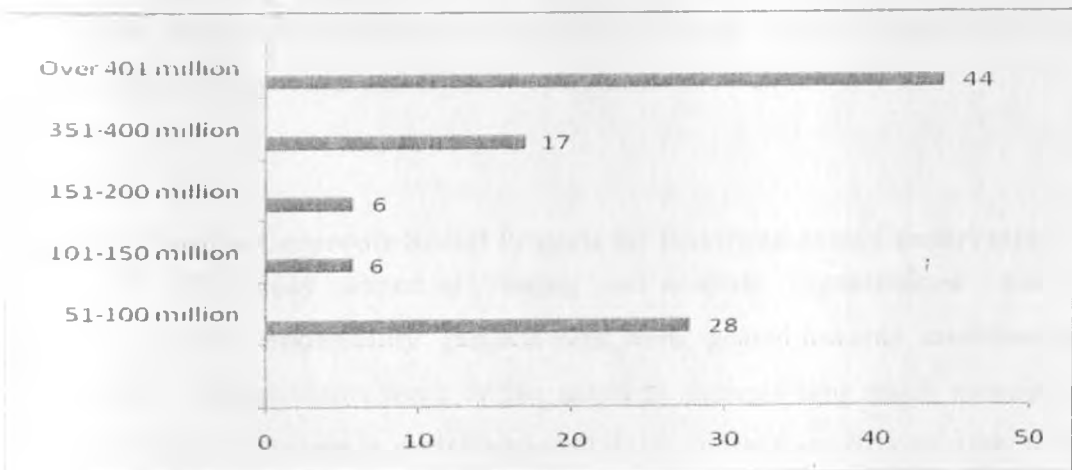
Turnover Range	Distribution	
	Frequency	Percentage
Below 200-250	0	0
300-350	0	0
400-450	1	5
500-600	2	11
600-999	0	0
Over 1 billion	16	84
Total	18	100

Results tabulated in the table reported that most of the organizations under study (84%) had a range turnover of over 1 billion. This was followed by (11%) those organizations whose turnover was between 500-600 only a small proportion of 5% had a turn over of between 400-450 million. It can therefore be concluded that most of the firms understudy had turnover of half a billion and over.

4.2.3 Organizations profit range in the last three years.

This section of study aimed at finding out the range of profit range for the organisations under study over the last three years. The following results were thus garnered as shown by the Figure 4.1.

Figure 4.1: Shows Organizations profit range in the last three years.



The above findings indicates that majority 44% of the respondents of organizations under study indicated profit range of over 400 millions. Only few organizations were cited as having profit range of below 150 million. Results shown that performance of the organisation comprised of high performer's category and low performers category however, the performance was generally good as indicated by results.

4.2.4 Practice of environment ethics.

Organization and especially those that are in industrial sector should be seen champion the execution of acceptable environmental conservation ethics. It is unfortunate that most of the organization usually ignore utilisation of environmental ethics and engage in polluting the environment either directly or

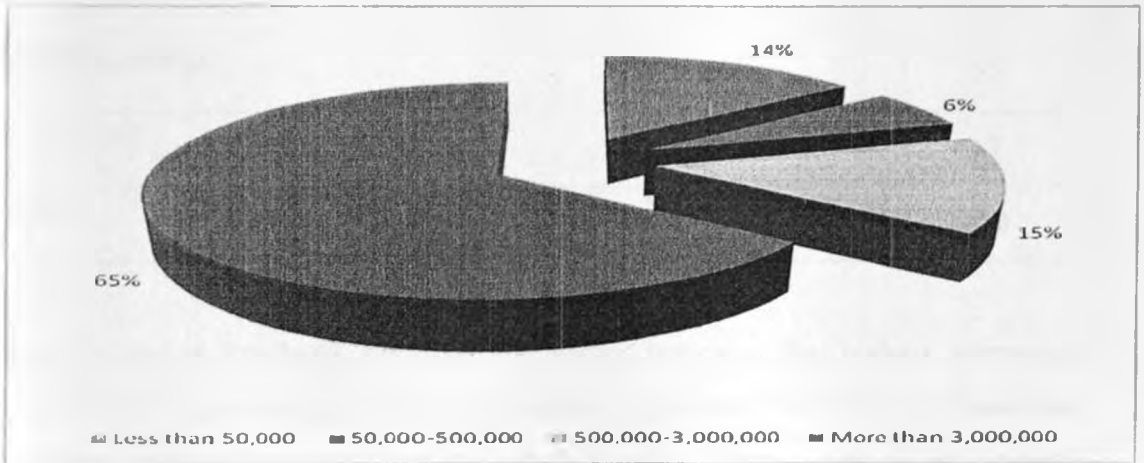
indirectly. More so, organization whether they pollute environment or not are supposed to contribute significantly towards making the environment conservation practices. It is with this aspect that this portion of study sought to establish what role the organizations did in ensuring practice of environmental ethics. The findings unravelled that : some of the organisation understudy had adopted ISO certification 9001-2000,ISO 1400-2011(for environmental management system) ISSRS level 3 (safety), Energy reduction, waste reduction, waste water reduction. ISO 9000:2000 on quality management, adhere to statutory legislation and protocol, a commitment to satisfy the economic aspiration of humanity and maintaining a friendly environment, environmental conservation by investing in technology which minimize adhere environmental impact of operation and production and planting trees. It can generally be concluded that most of organisation under study had entrenched proper environmental practices either through ISO certification or through entrenchment of environmental friendly operations.

4.3 Organisations Corporate Social Projects for Environmental Conservation.

This part of the study aimed at finding out whether organizations had any corporate social responsibility projects that were geared towards environmental conservation. Respondents were further asked to indicate how much money they allocated to these corporate social responsibilities more than 70% of respondents indicated that their organisation engaged in corporate social responsibility geared toward environmental conservation. These organisations engaged in activities such as ; land reclamation effort, Tree planting activities through the green team and proper waste disposal.

4.7. Amount of money allocated to environmental conservation CSR by different firms

Figure 4.2: Percentage distribution of money allocated to environment conservation by different firms



Results to the study observed that majority of the organizations (65%) spent more than 3millions towards environmental conservation strategies. This group was followed by 15% spending between 5m and 3m towards environmental conservation efforts.

4.3.1 Organization and Environmental Friendly Technology

Industrial and allied heavily depended on manufacturing of products ether from raw material or intermediate products. Organisation observing environmental conservation ethics must therefore invest on technology for their production. This calls for capital investment into renewal of machines into this venture. This section of the study sought to establish the extent to which firms invested into more environment friendly technology.

Table 4.3: Percentage distribution of organisation changing to more environmental friendly technology

Organisation changing to more environmental friendly technology	Distribution	
	Freq	Percent
High extent	11	61
Moderate extent	4	22
Low extent	3	17
Total	18	100

From the above tabulated findings, the results indicates that highest percentage (61%) of the organizations under study were in agreement that their companies had of recent changed to more environmental friendly technology to a high extent . Twenty two percent indicated that their organizations had moderately changed to more environmental friendly technology in the recent times to moderate extent. Only a minority of 17% indicated to have changed to environmental friendly technology to a low extent.

4.3.2 Expenditures in environmental conservation programs

This section of the study sought the extent to which organizations expenditure on environmental conservation by the organisation under study. Respondents were provided with statements on expenditure and were supposed to score the extent to they agreed with it. Results were as presented in Table 4.4.

Table 4.4: The extent of expenditure on environmental conservation programs

Statements	High extent		Moderate extent		Not sure		Low extent		Very low extent	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Upgrading of machines to meet the environmental conservation standards	3	16	8	42	4	21	3	16	1	5
Upgraded the organization infrastructure in order to adhere to environmental conservation	4	21	5	26	2	11	7	37	1	5
Sponsoring environmental conservation related activities	5	28	6	33	3	17	4	22	1	5
Initiated a long term environmental rehabilitation programs	6	32	4	21	4	21	4	21	1	5

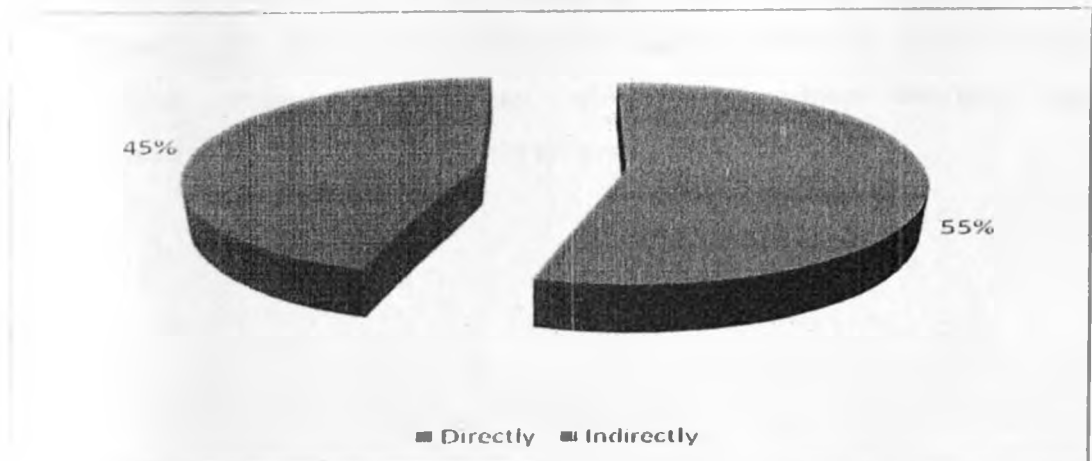
Study revealed that majority, 42% argued that their organizations were involved to moderate extent in upgrading machines to meet the environmental conservation standard. Thirty seven percent agreed that to low extent they had upgraded the

organization infrastructure in order to adhere to environmental conservation however, more than 50% of respondents agreed to a high or moderate extent. Although a more than 60 percent of respondents indicated that their organisation had sponsored environmental conservation related activities to a high and moderate extent. A majority of the respondents 33% confirmed that their organisation had sponsored environmental conservation related activities to a moderate extent. On the other hand thirty two percent, agreed to high extent that their organization had initiated a long term environmental rehabilitation programs. It can be concluded that more than 50 percent of the respondents agreed that their organisation had expenditures as results of embarking on environmental conservation program; this means that there were cost implication as result of these programs.

4.3.3 Organizations Environmental Conservation and Need for Extra Man Power

Additional man power as results of environmental conservation programs result into financial implication to an organisation. This part of the study sought to establish whether organisations had hired extra man power as result of environmental conservation. Results under this section were as presented in the Figure 4.3.

Figure 4.3: Percentage distribution of modes of hiring organization environmental conservation manpower



Results showing the mode of employment of manpower adopted by organisations shown that majority of 55% of the respondents confirmed that their additional

manpower as result of environmental conservation program was indirect. On the other hand forty five percent reported that they hired manpower directly in response to environmental conservation.

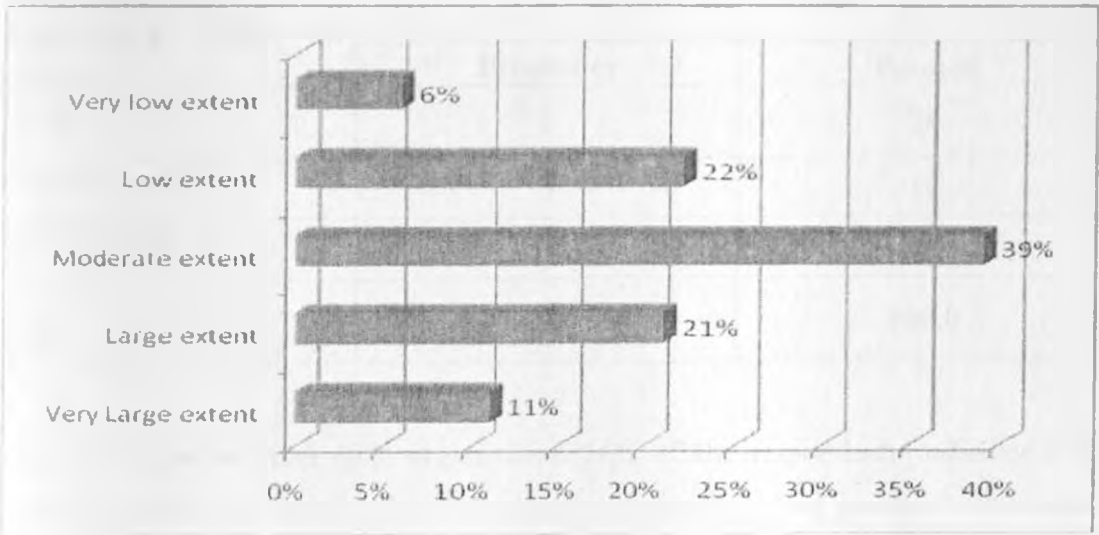
4.3.4 Organizations Environmental Activities in the Financial Year

Since most of the organisation acknowledged the practice of environmental ethics as well as expenditures on environmental conservation activities, the researcher asked the respondents to identify environmental conservation activities embarked by their organisation in the financial year. Respondents noted the following activities; Land rehabilitation through reforestation, Mau forest reforestation, Million tree campaign of UNEP, ECO challenge campaign , Rhino Ark" Aberdare trust" and Tree planting activities, were some of the activities engaged on by the various organizations under study.

4.3.5 Effects of environmental conservation on Management strategy financial decisions.

Environmental conservation program is not core business of the organisation but it is the responsibility of the organisation especially the industrial sector to conserve the environment. These programs affect the organisation in numerous ways and more importantly for this research the management and financial decision of the organisation. In this section respondents were asked to indicate the extent to which environmental conservation program affected management strategies and organisational financial decision. Results are presented in Figure 4.4.

Figure 4.4: The extent of the effect of environmental conservation and Management strategy financial decisions



Findings showed that majority 39 percent indicated that environment conservation programs affected management and financial decisions were of the opinion that to moderate extent, 21% and 11% indicated large and very large extent respectively. Only a small proportion of 6%, acknowledged effect to low extent. It can be concluded from these findings that more than 60 percent of the respondents acknowledged that environmental conservation program affected management strategies and financial decision decisions of these organisation to a very large extent, large extent and moderate extent.

4.3.6 Environmental conservation and effects on budget process.

Various issues affect budget making process if the issues crop up during or prior financial year in the budget making process. Therefore with this understanding, that this part of study was directed towards finding out what effects the environmental conservation process had on budget making process. The findings as shown by the table below were derived.

Table 4.5: Percentage distribution on extent of effect of environmental conservation on budget process

Environmental conservation effect on budget	Percent distribution	
	Frequency	Percent
Greater extent	5	28
Moderate extent	3	17
At low extent	10	56
Total	18	100.0

Table 4.5 illustrates that most organization 56% of the respondents indicated that environmental conservation affected budgeting process to a low extent. On the other hand a proportion of 28% percent of respondents indicated that environmental conservation affected organisation budgeting process to a great extent further explanation by respondents confirmed that conservation and sustainable development is an important part of budgeting process and others noted that it was imperative to budget for conservation as their organisation was contributing heavily to its manufacturing process through purchase of state of art technology into their operations. Those that indicate effect of environmental conservation on budgeting process to a low extent noted that not so much money was used in conservation efforts, Only one 1% of the profit is allocated to CRS including environmental and that their organisation was not directly involved in exploitation of natural resources.

4.3.7 Organization and environmental expenses incurred in the last three years

This part was in response to environmental expenses incurred in the organization three previous years. Respondents were asked to indicate effects as result to expenditure s on environmental conservation. From the findings are as presented in Table 4.6.

Table 4.6: Effects of expenditure on environmental conservation to the organisation

Statements on effects as results of expenditures on environmental conservation	Distribution					
	High extent		Moderate extent		Not at all	
	Freq	%	Freq	%	Freq	%
Has promoted my organization profitably	2	11	8	42	8	42
Has indirect benefit to my organization	3	16	14	74	1	5
Is a costly venture for the organization	3	16	7	37	8	42
Has improved our organization image to:	7	37	5	26	6	32
Has reduced organization profitability to:	1	5	8	42	10	53

Results illustrated in Table 4.6 showed that majority, 42% of the organizations surveyed, indicated that the expenses incurred in the organization for three years had to a moderate extent promoted organizations profitability. Seventy four percent reported that expenses incurred as a result of environmental conservation had indirect benefit to the organization to a moderate extent. A proportion of 42%, each, were of the opinion that the expenses incurred in environmental conservation was not at all costly venture for the organization or that the effects of expenditure on environmental conservation did not promote their organization profitably. Also, 63% of the respondents observed that environmental conservation activities expenses had helped to a moderate extent improved organization image. On the other hand, fifty three percent argued that expenses incurred in environmental conservation in three years had not at all reduced organization profitability whereas 42% of the respondents felt that expenses had affected the organizations profit to a moderate extent.

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4.3.8 Organisation in environmental conservation and its financial report

Organisations normally make financial reports to analyse their financial status within the current or previous years of operations. Thus financial reports are key instruments used by organisation in assessing their financial progress and status. It is on this assumption that led research on the effects of environment conservation to conduct study on how various organisations financial status are in regard to their: profitability ratio, liquidity ratio, solvency ratios, debt ratios. The results were as generated below.

Table 4.7. organization performance as shown by performance indicators

Performance indicators	Within the expected limits		Below limits		Over expected limits	
	Freq	%	Freq	%	Freq	%
Profitability Ratios	15	83	3	17		
Liquidity ratios	10	56	5	28	3	17
Solvency ratios	10	56	4	22	3	17
Debt ratios	11	61	6	33	1	6

The findings revealed that more than half of the respondents indicated that their firm performance indicators profitability, liquidity, solvency and debt ration were within the expected limits. However a few respondents 17%, 28% , 22% and 33% indicated that their organization performance against the indicators profitability , liquidity ,solvency and debt ratios respectively were below the limit. It can be concluded that although most firms registered that their performance was within expected limits a proportion of firm's performance was below limits.

4.3.9 Environment Conservation and Financial Performance of Organizations

This part of study sought to understand how environmental conservation attributed to financial performance.

Although most firms reported that their performance was within the expected limits respondents were further asked if they could attribute the status of their performance to environmental conservation embarked by the firm. Results observed that most of respondents never attributed environmental conservation effort to their performance, some other respondents confirmed that they could attribute environmental

conservation efforts to a less extent however a small proportion of respondents reported that through engaging in environmental conservation efforts their firm image had been enhanced translating into more profits for the company.

4.3.10 Environmental conservation effort effects on marketability of stocks and cost of capital

This section of the study aimed at establishing whether environmental conservation effort embarked by the firm had any effects on marketability of its stocks and cost of capital respondents gave opinion as illustrated in the table 8 as follows;

Table4.8: Distribution of opinion on environmental conservation effect on marketability of firms stocks and cost of capital

Environmental conservation affected marketability of your stocks and your cost of capital	Distribution	
	Freq	%
It has made our stock more marketable due to campaigns and financiers have supported our environmental concerns	6	34
Reduced our cost of capital due to increased demand for stocks	2	11
No it has not affected	9	50
Non response	1	5
Total	18	100

The study results showed that fifty percent of the respondents indicated that environmental conservation effort had no effect on the marketability of firms stock and cost of capital. However, 45 percent of the respondents indicated that there was a positive effect on marketability of firm stocks and cost of capital as a result of environmental conservation by the firm. Reduction in cost of capital was enhanced as result of demand for firms stocks. This was as result of strategic environmental conservation efforts campaigns.

4.3.11 Effect of Environmental Conservation on Change in Equity and Debt Ratio

Table 4.9: Respondents distribution on the extent to which environmental conservation affected equity and debt

Extent of attribution of environmental conservation efforts to change in equity and debt	Distribution	
	Frequency	Percent
Moderate extent	7	39
Low extent	10	56
Not at all	1	5
Total	18	100

Results revealed that majority (56%) of respondents felt that their environmental conservation embarked on by their organization had affected firms equity and debt to a low extent 39 percent indicated that their organization equity and debts was affected to moderate extent . only 5 percent of the respondents felt that environmental conservation had not all affected equity and debts of the firm .

4.3.12. Sustainable environment conservation and organization goal.

This section of the study aimed to establish organisation under study consideration of sustainable environmental conservation development as important goal of the firm. Respondents were asked to indicate whether this was important goal within their organisation. The results are as illustrated in Figure 4.5.

Figure 4.5: Percentage distribution of respondents' importance of sustainable environment conservation as organization goal.



From the findings illustrated in the figure above, study showed that majority of the organizations (90%) considered sustainable environmental conservation development as one of their organizational important goal. Only a minority of 10% denied sustainable environmental conservation as important goal in their organisation.

4.3.13 Competition of firm's goal of shareholders wealth maximisation and need to conserve the environmental

According to Brealy, et al, (2007) the primary objective of a firm is the maximization of the shareholders wealth, other goals come second and include; maximization of profits, ethics and management objective. The primary goal of the firm is to maximize the shareholders wealth since without achievement of this goal the shareholder will no doubt take his investments elsewhere with a higher return. With the heated global campaign on sustainable environmental conservation especially by industries, environmental conservation as a goal has taken centre stage as observed by existence of this goal in almost all firms in which case competition and overlapping of the overall goal of a firm is possible. The researcher therefore sought to establish whether there was competition between these two goals. Results shown that organisation struck balance between these two goals through running them concurrently. Other respondents shared the opinion that conflict was likely as their firm was highly dependents on natural resources and therefore both of them must be carefully addressed.

4.3.14 Organization description of their investment risk

Organizations whether large or small do have risks in their line of organizational activities, some business organizations do have investment risks that are considered during the venture into investments. This section of the study sought to describe organisations investment risk. Most of the respondents indicated that their firms were faced by high investment risk. Further probe on attribution of environment degradation to investment risk shown that respondents feared increase in investment risk in future due to continued environmental degradation. On the other hand other respondents reduced the investment risk through environmental conservation efforts as well as switching to environmentally friendly technology.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The purpose of this study was to determine the impact of environmental conservation on financial performance of organizations' management. Numerous specific objectives guided the study. This chapter presents the summary of findings arising from the analysis. It will also present the conclusion and recommendation as developed from the analysed findings. The following are sub sections guiding this chapter.

5.2 Summary of Findings

The following were the study major findings;

Findings of the study established that majority of the organizations (90%) considered sustainable environmental conservation development as one of their organizational important goal. Only a minority of 10% denied sustainable environmental conservation as important goal in their organisation.

Most organisations practise environmental ethics. The research found that most of the organization has adopted environmental management and safety practises, such as energy reduction, waste reduction, waste water reduction, adhering to statutory legislation environmental conservation by investing in technology which minimize environmental impact of operation and production and planting trees.

The study found that organizations spend great deal of their resources in conserving the environment. Results indicates that highest percentage (61%) of the organizations under study were in agreement that their companies had of recent changed to more environmental friendly technology to a high extent. Study revealed that majority 42% argued that their organizations were involved to moderate extent in upgrading machines to meet the environmental conservation standard . More than 50 % of respondents agreed to a high or moderate extent that their organisation had upgraded the infrastructure in order to adhere to environmental conservation. A

majority of the respondents 33% confirmed that their organisation had sponsored environmental conservation related activities to a moderate extent. On the other hand thirty two percent, agreed to high extent that their organization had initiated a long term environmental rehabilitation programs. Also observed was that more than 50 percent of the respondents agreed that their organisation had expenditures as results of embarking on environmental conservation program, this means that there were cost implication as result of these programs. Results found out that organisation had indirectly hired additional manpower as result of environmental conservation program as confirmed by majority of 55% of the respondents.

Environmental conservation activities engaged included; land rehabilitation through reforestation, Mau forest reforestation, million tree campaign of UNEP, ECO challenge campaign waste disposal management, and tree planting activities. Majority, 42% of the organizations surveyed, indicated that the expenses incurred in the organization for three years had to a moderate extent promoted organizations profitability. Seventy four percent reported that expenses incurred as a result of environmental conservation had indirect benefit to the organization to a moderate extent. Forty two percent were of the opinion that the expenses incurred as environmental conservation was not at all costly venture for the organization . Also 63% of the respondents observed that environmental conservation activities expenses had helped to a moderate extent improved organization image. On the other hand, fifty three percent argued that expenses incurred in environmental conservation in three years had not at all reduced organization profitability whereas 42% of the respondents felt that expenses had affected the organizations profit to a moderate extent.

Findings indicated that 39 percent indicated that environment conservation programs affected management and financial decisions were of the opinion that to moderate extent, 21% and 11% indicated large and very large extent respectively. Over all It was observed that more than 60 percent of the respondents acknowledged that environmental conservation program affected management strategies and financial decision decisions of these organisation to a very large extent, large extent and moderate extent.

The study also revealed that a majority of 56% of the respondents indicated that environmental conservation affected budgeting process to a low extent. On the other hand a proportion of 28% percent of respondents indicated that environmental conservation affected organisation budgeting process to a great extent. The findings revealed that more than half of the respondents indicated that their firm performance indicators profitability, liquidity, solvency and debt ration were within the expected limits. A few respondents 17%, 28% , 22% and 33% indicated that their organization performance against the indicators profitability , liquidity ,solvency and debt ratios respectively were below the limit. It can be concluded that although most firms registered that their performance was within expected limits a proportion of firm's performance was below limits.

The study results showed that fifty percent of the respondents indicated that environmental conservation effort had no effect on the marketability of firms stock and cost of capital. However, 45 percent of the respondents indicated that there was a positive effect on marketability of firm stocks and cost of capital as a result of environmental conservation by the firm. Reduction in cost of capital was enhanced as result of demand for firms stocks. This was as result of strategic environmental conservation efforts campaigns. Results revealed that majority (56%) of respondents felt that their environmental conservation embarked on by their organization had affected firms' equity and debt to a low extent 39% indicated that their organization equity and debts was affected to moderate extent. Only 5 percent of the respondents felt that environmental conservation had not all affected equity and debts of the firm.

Fifty percent of the respondents indicated that environmental conservation effort had no effect on the marketability of firms stock and cost of capital. However, 45 percent of the respondents indicated that there was a positive effect on marketability of firm stocks and cost of capital as a result of environmental conservation by the firm. Reduction in cost of capital was enhanced as result of demand for firms stocks. This was as result of strategic environmental conservation efforts campaigns.

5.3 Conclusions

From the findings of this study, several conclusions can be drawn. These include;

The study concludes that most of the firms in the industrial and allied sector had embarked on environmental conservation. Organisations had spent significant amount of money in financing these ambitious environmental conservation programs. Expenditures were incurred in upgrading to environmentally friendly technology in their production, upgraded infrastructure in order to adhere to environmental conservation, initiating long term environmental rehabilitation program as well as environmental campaign activities. All these efforts did not affect organisation expenditure to a great extent.

Organisation budget process and overall organisation performance was not significantly affected by environmental conservation program. The organisation performance indicators profitability, liquidity, solvency and debt ratio were within expected limit for organisations with environmental conservation programs.

Environmental conservation programs affected management and financial decision of the firm. Management strategies of a firm were influenced by the environmental conservation program. The financial decision into allocation of funds to environmental conservation was also observed to be affected. In general, only a few firms had a clear finance policy guiding environmental conservation.

5.4. Recommendations

The following recommendations can be made from the conclusion;

Industrial and allied sector needs to develop a strong financial policy guiding the environmental conservation since the current study established that only a few firms had policy guiding environmental conservation. This will go along in reducing competition with the wealth maximisation goal of a firm. This will also guide the organisation financial decisions.

With the growing concern for 'carbon credit', "green goals" and environmental sustainable production, industrial and allied sector should tap into this potential thereby attracting strategic investors and potential financiers through internal certification on environmental management systems. This will also lead to organisation enjoying financial subsidies as results of these efforts.

5.4.1. Recommendation for further studies

This study focused on the effects of environmental conservation efforts on corporate financial performance in industrial and allied sector of Nairobi stock exchange and therefore not representative. Further studies should aim at focusing on the private companies in the industrial sector in order to give more representative and conclusive findings on effects of environment conservation efforts on financial performance.

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APPENDICES

Appendix 1: Questionnaire

SECTION: A Back ground information

1. Name of respondent (Optional) _____

2. How long have you been in this organisation?
0-2 years [] 3-5 years [] 6-10 years [] over 10 years []

3. What was your organisation approximate turnover range in the last three financial years?

Below 200- 250 million [] 300 - 350 million []
400 -450 million [] 500 - 600 million []
600-999 Million [] Over 1 billion []

4. What was your approximate profit range in the last 3 financial years?

Less than 50 million [] 51-100 million []
101-150 million [] 151-200 million []
201-250 million [] 251-300 million []
301-350 million [] 351-400 million []
Over 401 Million []

5. Does your organization practice any environmental ethics? If yes, briefly outline these practices

SECTION: B Effect of Environmental conservation on organisation financial performance

6. Does your organization have any Corporate Social Responsibility project geared towards conservation? If yes how much money was allocated in the current financial budget?

7. How much have you channelled towards environmental conservation or CRS above in the last three years?

- Less than 50,000 [] 50,000-500,000 []
 500,000- 3,000,000 [] More than 3,000,000 []

8. To what extent has your company recently changed to more environmentally friendly technology?

- High extent [] Moderate extent [] Low extent []
 Not at all []

9. Besides your organisation CSR to what extent has your organisation spent in the following in attempt to embrace environment conservation?

1 High extent, 2 moderate extent, 3 not sure, 4 low extent, 5 very low extent

Expenditures	1	2	3	4	4
Sponsoring environmental conservation related activities					
Up grading of machines to meet the environmental conservation standards					
Initiated a long term environmental rehabilitation programs					
Upgraded the organisation infrastructure in order to adhere to environmental conservation					
Others specify					

10. In an attempt to conserve environment has your organisation hired new manpower in order to assist in this venture? If yes is it

Directly [] Indirectly []

Others specify _____

11. Which environmental conservation activities has your organisation earmarked in this financial year?

12. a) Do you think that environmental conservation embarked by your organisation have any affect on management strategy and financial decisions within your organisation? To what extent?

Very large extent [] Large extent [] Moderate extent []
Low extent [] Very low extent []

b) Please explain your answer?

13. a) Looking at your organisation budget how would you say environmental conservation has affected the budgeting process of your organisation?

Has affected to a greater extent [] Moderate extent []
at a low extent [] Not at all affected []

b) Please explain your answer

14. Looking at expenses incurred in environment conservation in three years would you say about environmental conservation?

a. Has promoted my organisation profitability to

High extent [] Moderate extent [] Not at all []

b. Has in-direct benefit to my organisation

High extent [] Moderate extent [] Not at all []

c. Is a costly venture for the organisation

High extent [] Moderate extent [] Not at all []

d. Has improved our organisation image to

High extent [] Moderate extent [] Not at all []

e. Has reduced organisation profitability to

High extent [] Moderate extent [] Not at all []

15. Looking at your organisation financial report how do you describe the following financial ratios indicated in last two years financial report?

Profitability ratios

Within the expected limits [] Below limits [] Over expected limits []

Liquidity ratios

Within the expected limits [] Below limits [] Over expected limits []

Solvency ratios

Within the expected limits [] Below limits [] Over expected limits []

Debt ratios

Within the expected limits [] Below limits [] Over expected limits []

16. How would you attribute the observation in Q15 to the environmental conservation embarked by your firm?

17. In your opinion has your view on environmental conservation affected marketability of your stocks and your cost of capital?

18. a) To what extent would you attribute change in equity and debt as a result of environmental conservation engagement within your organisation?

High extent [] Moderate extent [] Low extent [] Not at all []

b) Would you attribute this to your green future objective? Please Explain

19. As a manager do you consider sustainable environmental conservation development as an important goal of the firm?

Yes [] No []

20. Do you think there is competition between the firm's goal of shareholders wealth maximization and the need to conserve the environment? Please Explain

21. a) How do you describe your investment risk?

b) How has degradation of natural environment and its effects changed your investment risk exposure?

Thank you for time and contribution

Appendix 2: Companies Listed at NSE, 2008

Industrial and Allied

1. Athi River Mining Ltd.
2. BOC Kenya Ltd.
3. British American Tobacco Kenya Ltd.
4. Carbacid Investments Ltd.
5. Olympia Capital Holdings Ltd.
6. E.A. Cables Ltd.
7. E.A. Breweries Ltd.
8. Sameer Africa Ltd.
9. Kenya Oil Ltd.
10. Mumias Sugar Company Ltd.
11. Unga Group Ltd.
12. Bamburi Cement Ltd.
13. Crown berger (K) Ltd.
14. E.A Portland Cement Co. Ltd.
15. Kenya Power & Lighting Co. Ltd.
16. Total Kenya Ltd.
17. Eveready East Africa Ltd.
18. Kengen Ltd.

Source: NSE Website