A COMPARATIVE ANALYSIS OF PERFORMANCE OF NEGATIVE AND POSITIVE SOCIALLY SCREENED PORTFOLIOS AT THE NAIROBI SECURITIES EXCHANGE

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DECLARATION

Declaration by Student

I hereby declare that this Research Project is my original work and has not previously , in part or in entirety, been presented to any other University towards the award of any degree.

Signed ——————————————— Date ———————————————

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Approval by Supervisor:

This Research Project has been presented with my approval as the University supervisor.

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I say Asante Sana and God Bless you all.

DEDICATION

I dedicate this study to my beloved parents Maimuna Ahmed Daud and Ali Athman Abdalla for giving me the foundation of education, their motivation and encouragement has always helped me move forward. To my late grandmother Fatma Jumadar Amur, who taught me that I should always strive to achieve higher education, this one is for you. To my siblings Nana, Ahmed, Fatma, Athman and Warda, who believed in me and made me believe in myself. I love u all dearly.

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LIST OF ABBREVATIONS AND ACRONYMS

CAPM   Capital Asset Pricing Model

CMA   Capital Markets Authority

CSR   Corporate Social Responsibility

DSE   Dar es Salaam Stock Exchange

ESG   Environment, Social, Governance

GDP   Gross Domestic Product

JSE   Johannesburg Stock Exchange

MPT   Modern Portfolio Theory

MSCI KLD   Morgan Stanley Capital International   Kinder, Lydenberg, Domini

NASI   Nairobi Securities All Share Index

NSE   Nairobi Securities Exchange

NSE   Nigerian Stock Exchange

S&P   Standard and Poor

SRI   Social Responsible Investing

SPSS   Statistical Package for Social Scientists

USA   United States of America

ABSTRACT

Studies in Kenya have shown the need to embrace Socially Responsible Investing at the NSE. This study sought to form a Negative and Positive Screened Portfolio at the NSE and compare the performance of the two portfolios. For the negative screening S&P 500 Index-was used and for the positive screening MSCI KLD 400 Index was used. The study used descriptive correlation design to compare performance of the positive and negatively screened portfolio. Out of the 64 companies listed at the NSE average weekly returns for the five year period was calculated and then the Sharpe's ratio was used to determine the performance of the two portfolios. At 5% level of significance it was found out that there was a significant relationship between socially screening and portfolio performance since p=0.028< 0.05, and also the study found out that positively screened portfolio perform better than negatively screened portfolio. The study suggests that there is need to come up with an efficient positively socially screened portfolio and the returns of the portfolio compared to the market portfolio or the negatively screened portfolio. This will give a better measure without having the returns of the portfolio being weighed down by poorly performing stocks.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Social screening has grown tremendously over the years. The Quakers in the United States of America (USA) in the 18th Century were the first to screen their investments for moral acceptability. They refused to do business with firms involved in the slave trade, tobacco or alcohol (Mandala, 2003). Other Religious investors such as Catholics and Mormons also have a history in practicing social screening. A broadened, active interest in social screening also arose from exclusions of companies involved in apartheid in South Africa. The ranks of socially concerned investors in South Africa grew dramatically through the 1980s as millions of people, churches, universities, cities and states focused investment strategies on pressuring the white minority government to dismantle the racist system of apartheid. Social screening then moved on to other social exclusions including defense, gambling, guns, nuclear, pornography and environment pollution (Grossman and Sharpe, 1986). Social screening typically takes three forms which include: positive screening, negative screening and the best-in -class screening. Positive screens set criteria which investments must satisfy in order to be included in a portfolio. Examples include community diversity, employee relations, human rights, product quality, health, safety standards and environmental protection measures. Investors then choose from the companies with the highest ratings. Negative screening excludes all companies from the investment opportunity set if they are involved in unethical business areas such as alcohol, tobacco, gambling, military, firearms, or nuclear power business. (Yaron, 2005).

The study was anchored on various theories, the Modern Portfolio Theory by Markowitz (1952) which proposes that investors have to be compensated with higher returns for taking high risk. Markowitz came up with the concept of diversification that by holding many stocks, rather than just a few, an investor could reduce his/her risk while maintaining the same overall expected returns. Stakeholder theory, a stakeholder is any individual or group who can be affected or affect the attainment of business goals and objectives (Freeman, 1984). Stakeholder theory places shareholders as one of the multiple stakeholder groups that must be considered by managers in their decision making process. Sharpe (1964) and Lintner (1965) invented the CAPM used to determine a theoretically appropriate required rate of return of an asset, if that asset is to be added to an already well-diversified portfolio, given that asset's non-diversifiable risk. The model takes into account the asset's sensitivity to non-diversifiable risk (also known as systematic risk or market risk), often represented by the quantity beta (β) in the financial industry, as well as the expected return of the market and the expected return of a theoretical risk-free asset.

The Nairobi Security Exchange (NSE) is licensed and regulated by the Capital Market Authority (CMA). It has the mandate of providing a trading platform for listed securities and overseeing its members firms.NSE has different securities that are traded on a daily basis; therefore one can integrate screening in order to have a socially screened portfolio.

1.1.1 Social Screening

Dunfee (2003) defines social screening as the consideration of an investor's social, ethical or religious concerns in an investment decision making process while Diltz (1995) adds that social screening involves prohibiting investments in the securities of companies or industries that an investor perceives to be engaged in socially negative

behaviour. Social screening is one of the three broad approaches to socially responsible investing (SRI). The other two approaches are: Shareholder Advocacy which seeks to use shareholder votes to influence corporate behaviour towards socially responsible goals; and Community Investing that plays the role of making capital available to communities and or individuals that may otherwise not receive financing from mainstream corporate finance sources (Statman, 2000).A social screen is the expression of an investor's social, ethical or religious concern in a form that permits an investment manager to apply it in the investment decision-making process with other screens (Kinder and Domini, 1997).

Lozano (2006) defined Socially Responsible Investing (SRI) as an investment, which combines investors' financial objectives with their concerns about social, environmental and ethical issues where investor's practices align those concerns with their investment strategies. It is considered that SRI is one of the drivers of corporate social responsibility (CSR). SRI is an investment which meets certain baseline standards of social and environmental responsibility, actively engaging those companies to become better, more responsible corporate citizens, and dedicating a portion of assets to community economic development (Statman, 2000). SRI is any investment strategy based upon identifiable non-financial criteria incorporating a social or religious dimension (Dunfee, 2003). Thus SRI is basically investing considering not only high returns but also considering non-financial benefits such as; ethical values, social values, environmental factors and governance.

Social Screening (SS) is important at it helps investors align their personal ethical values, moral values and social values while choosing what to invest in. It also assists

in ensuring that environmental concerns are taken into account. Incorporating one's personals values in investing decision making is what Social Screening assists individuals to do by Choosing away from the "sin stocks". Social Screening helps not only in achieving high returns, but also considering the aspect of doing good. The Social Screening strategies are what help in investing decision making. They include screens, shareholder advocacy and community investing. The screens include negative /exclusionary screen where you do away with any investment that is against ethical values. Positive screening is the inclusionary screening and will be considered in an investment because they are environmental conscious or deemed good corporate citizens. The best in class is consists of combining the negative and positive screens (Thorel and Stenstrom, 2007).

1.1.2 Portfolio Performance

Portfolio performance is viewed as a feedback and a control mechanism that can make an investment process more effective. The measurement of portfolio performance is crucial to the investment manager in identifying sources of strengths and weaknesses as well as determining whether past performance was superior or inferior and thereafter determine whether such performance was due to skill or luck. The essential idea behind portfolio performance measurement is to compare returns obtained in comparison with what could have been obtained if one or more appropriate alternative portfolios had been chosen for investment (Sharpe, 1992).

The key risk-adjusted measures of portfolio performance include: the Sharpe ratio which measures returns relative to the total risk of the portfolio, where total risk is the standard deviation of portfolio returns, the Treynor ratio which evaluates the risk premium per unit of risk and uses the portfolio beta to measure risk, and the Jensen

measure which calculates the portfolio's excess returns and the amount by which the portfolio's actual return deviates from its required return that is determined using beta and CAPM (Gitman, 1999).

1.1.3 Social Screening and Portfolio Performance

There are a lot of concerns that whenever employing SRI screens on portfolio selection, one risks on losing out on overall performance. Furthermore it is assumed that a screened portfolio has a high risk factor. Markowitz (1952) portfolio theory proposes that the higher the risk factor a portfolio has the higher the returns should be. He also came up with the concept of diversification, that by holding many stocks, rather than just a few, an investor could reduce his/her risk while maintaining the same overall expected returns. Thus the impact of SRI on portfolio performance needs to be known. Thorel and Stenstrom (2007) investigated the performance of regular mutual funds compared to Socially Responsible Investment (SRI) mutual funds, over the time period of January 2001 to September 2007 in the Swedish Financial Market and extended on the performance of SRI funds by using holding data of regular funds to create replicating portfolios. The findings indicated that an exclusion of companies according to norm-based screening can improve a fund's performance. However, when looking specifically at the fund management of SRI funds, the results point towards inferior performance compared to regular funds. This shows that the performance of socially screened portfolios is inferior compared to normal portfolios.

Iraya and Musyoki (2013) sought to determine whether applying social screens to a portfolio would affect portfolio performance. The study conducted was on 58 companies listed on NSE. Two portfolios were formulated; NSE 20-share index and the second portfolio comprised of 20firms which passed the negative screening

criterion. The results concluded that socials screening results in reduced portfolio performance. Iraya (2014) studied the relationship among socially responsible investments, portfolio management, institutional characteristic and performance of mutual funds in Kenya. A positivistic research philosophy and correlation descriptive research design was adopted on a population of 114 mutual funds in Kenya. The results indicated that there is a positive relationship between SRI and performance.

1.1.4 Nairobi Security Exchange

The Nairobi Securities Exchange (NSE), formerly Nairobi Stock Exchange, is the principal stock exchange of Kenya. It began in 1954 as an overseas stock exchange while Kenya was still a British colony with permission of the London Stock Exchange. The NSE is a member of the African Securities Exchanges Association. It is Africa's fourth largest stock exchange in terms of trading volumes, and fifth in terms of market capitalization as a percentage of GDP. The Exchange works in cooperation with the Uganda Securities Exchange and the Dar es Salaam Stock Exchange, including the cross listing of various equities. NSE is reorganized into ten independent market sectors including: Agricultural, Commercial and Services, Telecommunication and Technology, Manufacturing and Allied, Banking, Automobiles and Accessories, Insurance, Energy and Petroleum, Construction and Allied and Investment. Two indices are popularly used to measure performance. The NSE 20-Share Index has been in use since 1964 and measures the performance of 20 blue-chip companies with strong fundamentals and which have consistently returned positive financial results. The other index is the NSE All Share Index (NASI) which was introduced as an alternative index. Its measure is an overall indicator of market performance. The Index incorporates all the traded shares of the day (NSE, 2012).

The NSE is licensed and regulated by the Capital Market Authority (CMA). It has the mandate of providing a trading platform for listed securities and overseeing its members firms.NSE has different securities that are traded on a daily basis; therefore one can integrate screening in order to have a socially screened portfolio.

1.2 Research Problem

Screening is the process of selecting companies to invest in based on a set criteria, social and/or environmental performance. Social Screening helps investors align their personal ethical values, moral values and social values while choosing what to invest in. It also assists in ensuring that environmental concerns are taken into account. Incorporating one's personals values in investing decision making is what Social Screening assists individuals to do by Choosing away from the "sin stocks". Social Screening helps not only in achieving high returns, but also considering the aspect of doing good. Researching the records of individual companies is usually beyond the capacity of most individual investors, but is readily performed by certain public pension funds, mutual funds, and money managers offering screened portfolios. That leaves individual investors to decide which screens align with their social values and choose their investment products accordingly. Many investors screen their portfolios on a daily basis, the general public, banking, government and other stakeholders are addressing socially, ethical and environmental issues. This arises the need to incorporate social screening in portfolio formation. There are a lot of concerns that whenever employing SRI screens on portfolio selection, one risks on losing out on overall performance. Furthermore it is assumed that a screened portfolio has a high risk factor (Lozano, Albareda, Balaguer, 2006).

Social Screening aims to bring about positive outcomes to people, communities and society as a whole, as well as providing financial returns for investors. Impact investment is needed to fund the creation of new innovations and to support their testing and development. It also allows the best ones to scale up and change the world. This is as true of innovation that seeks to achieve social impact as it is of those motivated by creating financial value.

NSE has different securities that are traded on a daily basis; therefore one can integrate screening in order to have a socially screened portfolio. There is an increased growth in people who invest in the stocks traded at NSE. The NSE has different kinds of traders; individual investors, corporate investors, institutional investors, and fund managers who have different demands. Apart from making profit there are an increasing number of investors who engage in investing for ethical reasons, moral reasons, and social reasons. Due to these diverse reasons it would be important to carry out this study at the Nairobi Securities Exchange (Mwatuwano, 2010)

Iraya and Musyoki (2013) and Mwatuwano (2010) studies analyzed the performance of socially responsible investments comparing the financial performance of socially responsible portfolio with the performance of conventional portfolio. Most of these studies define socially responsible companies solely based on the environmental screen. However, socially responsible investing typically considers a multitude of criteria. The moral argument for doing good should be reason enough for companies to behave responsibly. This raises the need to research on comparison of performance

of socially screened portfolios. The question in mind is, is there a difference in performance of negatively and positively screened portfolios at the NSE?

1.3   Research Objective

The objective of this study was to compare the performance of negatively and positively screened portfolios at the Nairobi Securities Exchange.

1.4   Value of the Study

This study will help Investors to be able to choose between regular portfolios and socially screened based on the performance. This will enable making of informed decisions. To the scholars, this study will increase to the body of knowledge to the existing literature on social screening.

This study will help individuals and firms to be able to invest ethically without fear of losing out on returns of their investments. The results of this study would add to existing knowledge in the area of SRI. Individuals will be able to know how to screen out depending on their personal values.

Fund Managers will be able to choose between on regular funds and socially screened funds. They can also evaluate their fund managers and screening method to improve the returns of all their funds. The effect of the company's shares being screened out of many SRI funds is negative, hence corporate managers will do everything to ensure their company shares remain candidates for inclusion by many fund managers.

The study will increase the body of knowledge on socially responsible investing. Since socially responsible investing is a growing field, as it continues to grow, many

scholars and investors will seek to understand the principles of SRI, thus providing an avenue for scholars who want to research in this area.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter will review various theoretical frameworks that provide explanations on socially responsible investing and stock returns. The specific areas covered here are reviews of theories which include stakeholder theory and modern portfolio theory. This chapter will also cover review of empirical literature, summary of previous studies and research gaps.

2.2 Theoretical Framework

Several theories affect social responsible investing. Modern Portfolio Theory by Markowitz (1952) which proposes that investors have to be compensated with higher returns for taking high risk. Markowitz came up with the concept of diversification that by holding many stocks, rather than just a few, an investor could reduce his/her risk while maintaining the same overall expected returns. Stakeholder theory, a stakeholder is any individual or group who can be affected or affect the attainment of a business goals and objectives (Freeman, 1984)

2.2.1 Modern Portfolio Theory

The Markowitz (1952) approach proposes that investors have to be compensated with higher returns for taking high risk. He also came up with the concept of diversification; that by holding many stocks, rather than just a few, an investor could reduce his/her risk while maintaining the same overall expected returns. The impact of SRI on return and risk characteristics of an investor's portfolio therefore needs to be known.

Opponents of SRI argue that the application of non-financial considerations, such as environmental, social, and governance (ESG) factors, to the investment process must result in lower investment returns because the number of investment opportunities is reduced. Relying on modern portfolio theory, this position, SRI works with a smaller investment universe and therefore will generate lower expected risk-adjusted returns. SRI proponents argue that any loss of portfolio efficiency due to a smaller investment universe is more than offset by the more attractive investment characteristics of the remaining companies as investors exclude companies engaged in unsustainable activities or practices that will make them less profitable over time (Geczy et al. 2005). Hence SRI and portfolio management are intervened.

2.2.2 Stakeholder Theory

The traditional meaning of a stakeholder is any individual or group who can be affected or affect the attainment of a business goals and objectives (Freeman, 1984). The stated principles and opinions of the stakeholder theory are referred to as normative stakeholder theory in literature. This theory enables stakeholders or managers know how they should act.

It also serves as a guide for how they should view the purpose of the business, based on some ethical principle (Friedman and Miles, 2006). Thus this ensures that manages work in line with environmental, social and governance factors (ESG), hence putting into work the SRI concept.

Stakeholder theory places shareholders as one of the multiple stakeholder groups that must be considered by managers in their decision making process. These stakeholder groups include; internal, external, and environmental constituents. Like shareholders, the other stakeholders may place demands upon the firm, bestowing societal legitimacy. Firms must address these demands or else face negative confrontations

from non-shareholder groups, which can lead to diminished shareholder value, through boycotts, lawsuits, or protests.

2.2.3 Capital Asset Pricing Model Theory

Sharpe (1964) and Lintner (1965) invented the CAPM theory. In finance, the capital asset pricing model (CAPM) is used to determine a theoretically appropriate required rate of return of an asset, if that asset is to be added to an already well-diversified portfolio, given that asset's non-diversifiable risk. The model takes into account the asset's sensitivity to non-diversifiable risk (also known as systematic risk or market risk), often represented by the quantity beta (β) in the financial industry, as well as the expected return of the market and the expected return of a theoretical risk-free asset. CAPM suggests that an investor's cost of equity capital is determined by beta. Beta values are now calculated and published regularly for all stock exchange-listed companies. The problem here is that uncertainty arises in the value of the expected return because the value of beta is not constant, but changes over time.

2.3 Determinants of Performance of Socially Screened Portfolios

Social Screening aims to bring about positive outcomes to people, communities and society as a whole, as well as providing financial returns for investors. Impact investment is needed to fund the creation of new innovations and to support their testing and development. It also allows the best ones to scale up and change the world. This is as true of innovation that seeks to achieve social impact as it is of those motivated by creating financial value. For example development of Social Impact loans (Social Investment Forum, 2003).Various factors determine performance of socially screened portfolios;

2.3.1 Diversification

Diversification is the process by which investors add additional non-perfectly correlated securities in such a manner that Security A can partially mitigate the unsystematic risk of Security B within a portfolio. Efficient capital markets reward investors for systematic risk, which cannot be diversified away, but do not reward unsystematic risk, which is easily diversified away in an efficient portfolio through the addition of non-perfectly correlated securities (Barnett, 2006).

While all this sounds complex, it is not. Every stock and industry has a different business risk. MPT suggests that you take one stock from one industry (like an oil stock) and combine it with another stock with a different business risk profile (like a plastic manufacturer). The stocks move in less than perfect tandem (non-perfectly correlated.) In pragmatic terms, an investor should have no fewer than fifteen stocks in their portfolio with no more than two stocks from any one industry. This will result in a good degree of diversification being achieved. Investors who choose to limit available securities using qualitative, non-financial criteria limit their ability to achieve adequate diversification. Using our example above, an investor might be forced to use three stocks instead of two from a particular industry. This portfolio like SRI funds will then bear a substantial amount of specific risk versus non-SRI funds and should logically achieve lower risk adjusted returns. In addition, firms that choose to invest capital in costly social programs increase costs and operate less efficiently than firms that do not. Therefore, not only do SRI funds limit their investment universe at the expense of adequate diversification, but they may also be selecting from a pool of inferior companies that have uncompetitive cost structures (Barnett, 2006).

2.3.2   Size of Portfolio

Studies from Overseas suggested a correlation between the performance of mutual fund managers and the size of funds under control, with small funds outperforming large funds and extended the analysis to Australian superannuation fund managers where industry structure, purpose, asset base and investment strategies are considerably different. His study investigated the potential effect of portfolio asset size on quarterly excess and risk adjusted returns and systematic risk profiles from 1977 to 1993. Although overall performance had weakly improved since the 1970's, the results contradicted overseas evidence. After allowing for survivorship bias and extreme outliers, variations in asset size are not related to long term return or risk profile differentials between manager's potential reasons include concentration on short term performance, averaging, window dressing (McCrae, 1996)

Goh and Ng (2011) examined the performance of portfolios of stocks listed in the Malaysian exchange through a simulation study. The effects of different portfolio sizes and fund allocation methods on return per unit of risk, or risk reward, were analyzed. Risk rewards increased with the inclusion of a larger number of stocks in a portfolio but at a decreasing rate. The results showed that a portfolio size of 11 stocks is generally sufficient to generate reasonable risk rewards. The results, confirmed by holdout validation, also suggest that the conditional optimal and minimized variance allocation methods yield high risk reward, while the equal weight method has the poorest performance.

2.3.3 Social Screening

Iraya (2014) conducted a study to establish the relationship among socially responsible investments, portfolio management, institutional characteristic and

performance of mutual funds in Kenya. A positivistic research philosophy and correlation descriptive research design was adopted on a population of 114 mutual funds in Kenya. The results indicate that there is a positive relationship between SRI and performance.

Cortez, Silva and Areal (2008) looked at the performance of European socially responsible funds. The scholars investigated the performance of a sample of socially responsible mutual funds from seven European countries investing globally and/or in the European market. Using unconditional and conditional models, they assessed the performance of these funds in comparison to conventional and socially responsible benchmark portfolios. The results show that the performance of global socially responsible funds in European markets is comparable to the performance of conventional benchmarks and socially responsible benchmarks.

2.4 Empirical Review

The studies that have been reviewed have been categorized as global and local studies and are outlined below:

2.4.1 Global Studies

Lozano, Albareda and Balaguer (2006) reviewed the development of SRI in Spanish financial market. A negative screening criterion was adopted. The results showed a major deficit in the process due to Spanish investors having limited sensitivity to social issues and knowledge of SRI. Other SRI strategies such as shareholder activism would have further helped the research.

Thorel and Stenstrom (2007) investigated the performance of regular mutual funds compared to Socially Responsible Investment (SRI) mutual funds, over the time period of January 2001 to September 2007 in the Swedish Financial Market and extended on the performance of SRI funds by using holding data of regular funds to create replicating portfolios. The findings indicated that an exclusion of companies according to norm-based screening can improve a fund's performance. However, when looking specifically at the fund management of SRI funds, the results point towards inferior performance compared to regular funds. The study didn't indicate how the screening process is done and the difference between the SRI funds and regular funds is unclear.

Cortez, Silva and Areal (2008) looked at the performance of European socially responsible funds. The scholars investigated the performance of a sample of socially responsible mutual funds from seven European countries investing globally and/or in the European market. Using unconditional and conditional models, they assessed the performance of these funds in comparison to conventional and socially responsible benchmark portfolios. The results show that the performance of global socially responsible funds in European markets is comparable to the performance of conventional benchmarks and socially responsible benchmarks. The use of SRI strategies would have helped the research achieve better results.

Diane (2010) discussed how social movements can influence economic systems. Empirical findings were drawn from longitudinal case study (1997-2009) based on participative observation, interviews and documentary evidence. The results were social movements can help bring SRI concerns into financial institutions.

Hedrick (2011) researched on SRI for blue grass community foundation in USA to evaluate if an updated strategy that included SRI would be advantageous and in line with the mission of the organization. He examined literature relevant to the topic and conducted an analysis of a sample of mutual funds that were then currently available, some of which were social responsible and some were not. The literature was not conclusive but indicates that SRI is growing fast in the recent years and that investors will be less likely to be forced to give up significant returns in order to satisfy SRI.

2.4.2 Local Studies

Mwatuwano (2010) analyzed whether applying Islamic screens to a portfolio will affect the portfolio`s performance in the Kenyan investment market. The researcher employed exclusionary screening. The research was descriptive, based on 47 listed companies in the main market segment of the NSE as at 1[st]January 2010 to31[st] December 2010. These companies were islamically screened with respect to seven aspects namely; no alcohol, no pork, no tobacco, no adult entertainment, no conventional financial services, no preference shares and a long term debt to asset ratio of not more than 33%. The results indicated that there is no significant difference between risk and returns of the two portfolios. The study did not consider the other SRI strategies such as shareholders activism and community based investing. The study only involved negative screening and not the other two screening methods.

Iraya and Musyoki (2013) sought to determine whether applying social screens to a portfolio would affect portfolio performance. The study conducted was on 58 companies listed on NSE. Two portfolios were formulated; NSE 20-share index and the second comprised 20firms which passed the negative screening criterion. The

results concluded that socials screening results in reduced portfolio performance. The study did not consider shareholder advocacy, community investing and the other screening criterions.

Matheka (2014) sought to establish whether there is relationship between socially responsible Investment and sustainable financial performance of commercial Banks in Kenya. The study adopted a descriptive correlation design and targeted all the forty four commercial banks in Kenya. It was found that there is a positive relationship between social responsible investment and financial performance of commercial banks in Kenya. The fall back of the study is, it did not employ a standardized index for screening purposes and the other SRI strategies were left out.

Iraya (2014) conducted a study to establish the relationship among socially responsible investments, portfolio management, institutional characteristic and performance of mutual funds in Kenya. A positive research philosophy and correlation descriptive research design was adopted on a population of 114 mutual funds in Kenya. The results indicate that there is a positive relationship between SRI and performance. The study therefore justifies that fund managers can include SRI criteria in their portfolio.

2.5 Research Gap

From the studies analyzed, it is clear that there is an increased move towards Social Screening. Investors are not only interested in financial gains, but also, some would like to invest in activities consistent with their faith, others want to invest in activities friendly to the environment yet others are very keen on ethical matters. Social Screening seeks to maximize both financial returns as well as social good.

Studies carried out on Social Screening address very crucial issues such as consumer protection, ethics, environmental issues and human rights. Therefore studies on Social Screening provide guidance on the way forward for investors for example which stocks to include or exclude from their portfolios. This is a very critical area of study which if ignored, the results could be disastrous.

2.6 Summary of Literature Review

Markowitz (1952) portfolio theory proposes that the higher the risk factor a portfolio has the higher the returns should be. He also came up with the concept of diversification, that by holding many stocks, rather than just a few, an investor could reduce his/her risk while maintaining the same overall expected returns. Thus the impact of SRI on portfolio performance needs to be known. Thorel and Stenstrom (2007) investigated the performance of regular mutual funds compared to Socially Responsible Investment (SRI) mutual funds, over the time period of January 2001 to September 2007 in the Swedish Financial Market and extended on the performance of SRI funds by using holding data of regular funds to create replicating portfolios.

The literature of Social Screening is not conclusive. There is contradicting results in the review, Iraya and Musyoki (2013) study resulted in under performance of the screened portfolio. While Mwatuwano (2010), Matheka (2014) and Iraya (2014) studies indicate that there is a positive relationship between Social Screening and performance.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents research design, population and sample size, data collection instrument and data analysis techniques that were used in the study.

3.2 Research Design

The study used descriptive correlation design to compare performance of the positive and negatively screened portfolio.

3.3 Population

Population of the study comprised the 64 listed firms in Kenya as at December 2014.The study also used census design and involved all the 64 listed firms in Kenya at the Nairobi Security Exchange from 1st January 2010 to 31^{st}December 2014. This was because the listed firms were not too many as shown in Appendix I. The study excluded any dormant stocks that were not actively traded.

3.4 Data Collection

The study used secondary data collected from the NSE. Data collected included share prices and annual dividend payments. The data collected to measure performance of the portfolio included; the share prices at the beginning of every week (Po), the share prices at the end of every week (P1) and the amount of dividend issued (D). Negative screening and positive screening criterions were used. The screens employed were: Negative screening screened for alcohol, adult entertainment, tobacco, gambling and GMOs. Positive Screening used the screens of Board Diversity/Employee Policies, Environmental Impact, Human Rights, Labor Relations and Corporate Governance.

MSCI KLD 400 Index was used for positive screening and the S&P 500 Index was used for negative screening as shown in Appendix II.

3.5 Data Analysis

Weekly returns on the screened portfolio were calculated for a period of five years. The total Annual returns of each share was measured as the sum of cash received in form of dividends and the change in the portfolio's market value (capital gain or loss) divided by the market value of the portfolio. The weekly returns of the portfolio were calculated using the mean of the individual securities returns in the portfolios. The data to measure performance of the portfolio included; the share prices at the beginning of every week (Po), the share prices at the end of every week (P1) and the amount of dividend issued (D).

$$R = \frac{P_1 - P_0 + D_1}{P_0}$$

Where;

R is the return on stock

P_1 is the share price at the end of the period

P_0 is the share price at the beginning of the period

D_1 is the annual dividend per share for the period

The portfolio performance was evaluated using the Sharpe's ratio. This is because Sharpe's ratio is a composite measure of risk-adjusted portfolio returns. It measures the return of a portfolio in excess of risk free rate relative to its total risk where the total risk is the standard deviation of portfolio returns. This measure is the most appropriate for the study as it considers both systematic and unsystematic risks. The Sharpe's Ratio is given by

$$S_t = \frac{R_p - R_{rf}}{\delta_p}$$

Where;

S_t is the Sharpe Index

R_p is the average return on portfolio p

R_{rf} is the risk free rate of return

δ_p is the standard deviation of return of portfolio p

The data was analyzed using t test to determine whether there is significant difference between the returns of the positively and negatively screened portfolio.

CHAPTER 4: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The study set out to construct a negatively and positively screened portfolio. Companies listed at the Nairobi Securities Exchange were put into exclusionary and inclusionary screens in order to come up with the two portfolios. The study set out to determine and evaluate the performance of the positive against the negative portfolio. This chapter explains how the data was analyzed, analysis techniques used and the discussion of results.

4.2 Summary of the Findings

The study was able to create two portfolios, the negative screened portfolio and the positive screened portfolio. Also the average returns for the five year period were calculated and the corresponding standard deviations were also calculated. This was done by taking the share prices at the end of every week (P1) subtract the share prices at the beginning of every week (Po) add the amount of dividend issued (D) divided by the share prices at the beginning of every week (Po).The risk was calculated by taking the standard deviation of the weekly returns.

4.2.1 Portfolio Construction

In the construction of the Negative Screened Portfolio, five screens were used through the S&P 500 Index, this screen used the No Alcohol, No Adult Entertainment, No Tobacco, No Gambling and No Genetically Modified Organisms (GMOs) criterion. Appendix III shows the Negatively Screened Portfolio where Y stands for Yes.

For the positive screened portfolio; the screens used were five and here 30 firms were obtained. It should be noted that 4 firms were dropped from the negative portfolio;

Mwatuwano (2011) dropped five firms to match the 20 from NSE index. The screens used were Board Diversity/Employee Policies, Environmental Impact, Human Rights, Labor Relations and Corporate Governance. Appendix IV shows the Positively Screened Portfolio where Y stands for Yes

4.2.2   Risk and Returns

Weekly Returns and Risks for the Years 2010-2014 were calculated. Table 4.3 shows the weekly risk and returns for the Negative Screened Portfolio. The weekly returns were calculated by getting the average returns per week for the five year period and the risk was calculated by getting the standard deviation of the weekly returns for the 52 weeks.

Table 4.1 Average Weekly risk and Returns for the Negative Screened Portfolio

WEEK	WEEKLY RETURNS	STANDARD DEVIATION	WEEK	WEEKLY RETURNS	STANDARD DEVIATION
1	0.0391	0.0259	27	-1.6906	3.0200
2	0.1219	0.1552	28	-0.9149	0.9551
3	-0.1345	0.0738	29	-0.6447	0.8797
4	0.0048	0.0136	30	-1.0068	0.8164
5	0.0106	0.0102	31	-1.0162	1.0531
6	-0.8839	0.5680	32	0.2201	1.1126
7	-0.1376	0.2724	33	-1.6832	4.3823
8	-0.0645	0.2019	34	-1.7782	4.0363
9	-4.6495	1.8673	35	5.3554	28.0212
10	0.2327	0.1426	36	-0.6965	1.3411
11	0.0747	0.5940	37	-1.5891	5.8527
12	-22.3899	44.3160	38	-0.4808	5.4222
13	0.5325	1.2946	39	0.3366	35.8829
14	-0.9176	0.9074	40	-1.0209	0.7594
15	1.1669	1.6150	41	2.3821	4.0862
16	-1.7933	2.4138	42	-0.7170	0.9161
17	-0.4661	2.5500	43	-0.8994	0.9007
18	0.6623	1.3189	44	-0.1398	1.0781
19	-0.2075	1.9042	45	-0.2141	3.1851
20	-2.2650	1.8737	46	-1.0842	0.8712
21	0.7790	6.2421	47	2.7621	7.4039
22	-2.1727	3.0169	48	-0.5948	0.5690
23	-13.6515	20.7404	49	-0.5380	0.5000
24	-3.0134	4.2944	50	-0.2890	0.4077
25	-2.3763	10.0369	51	-0.7699	1.1540
26	-1.3311	1.6804	52	-0.7198	1.0641

Source: Computations from NSE data

The table above shows varied results since the returns and the risk change week in week out. There were negative results in 71.15 %(37 out of 52) weeks and 28.85 %(15 out 52) weeks showed positive results. Week 47 had the highest return with a value of 2.7621 while week 12 recorded the lowest return of -22.3899. The lowest risk was in week 5 with a standard deviation of 0.0102 and the highest risk was in week 12

with a standard deviation of 44.3160.The table 4.4 below shows the average weekly
risk and return for the Positively Screened Portfolio. This was necessary to enables
calculation of the Sharpe's Ratio.

Table 4.2 Average Weekly risk and Returns for the positively Screened Portfolio

WEEK	WEEKLY RETURNS	STANDARD DEVIATION	WEEK	WEEKLY RETURNS	STANDARD DEVIATION
1	4.2698	4.8108	27	5.1192	3.9614
2	2.9792	4.7332	28	3.6261	2.8060
3	3.2945	3.7119	29	-2.1108	1.6334
4	6.3113	7.1109	30	3.9643	3.0677
5	4.6421	5.2302	31	-0.5194	0.4019
6	8.6086	9.6992	32	7.0921	5.4881
7	3.6220	4.0808	33	8.7785	6.7931
8	1.4452	1.6283	34	-2.0827	1.6116
9	2.2946	2.5853	35	5.5268	4.2768
10	6.1015	6.8745	36	3.9498	3.0565
11	9.1834	10.3468	37	7.5667	5.8554
12	3.5985	4.0544	38	4.8405	3.8220
13	4.7960	5.4036	39	3.4287	2.7072
14	5.1558	5.8091	40	1.9959	1.5760
15	10.0340	11.3052	41	4.9139	2.7668
16	7.9926	9.0052	42	2.8604	1.6106
17	1.9076	2.1493	43	5.3722	3.0248
18	3.6220	4.0808	44	-0.7038	0.3963
19	5.1680	5.8227	45	9.6108	5.4114
20	2.2950	2.5853	46	11.8962	6.6981
21	4.0540	4.5676	47	2.8223	1.5891
22	12.9061	14.5412	48	7.4896	4.2170
23	5.4600	6.1516	49	5.3526	3.0138
24	8.3326	9.3882	50	10.2540	5.7735
25	7.0172	7.9063	51	11.5621	4.5968
26	8.1726	9.2080	52	8.1890	3.2561

The table above shows varied results since the returns and the risk change week in week out. There were positive results in 92.31 %(48 out of 52) weeks and (4 out of 52) weeks showed negative results. Week 47 had the highest return with a value of 12.9061 while week 34 recorded the lowest return of -2.0826, the lowest risk was in week 31 with a standard deviation of 0.4019 and the highest risk was in week 22 with a standard deviation of 14.5412. The Sharpe's Ratio for the Negative screen for the five years was averaged for week by week and the results were as shown in the figure 1 below. This was necessary to show the performance of the negatively screened portfolio.

Figure 1: Sharpe's Ratio for the Negative Screened Portfolio
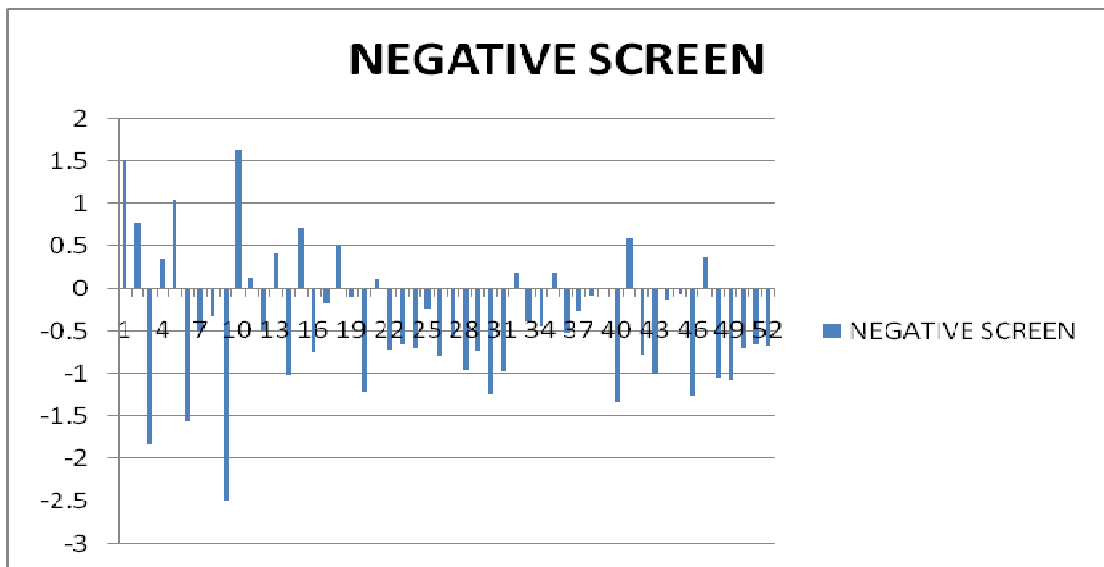
According to the figure aforementioned, the lowest week was week 9 with a ratio of -2.5 while the highest week was week 11 with a ratio of 1.7.Also the Sharpe's Ratio for the Positive Screened Portfolio was calculated and the results were as shown in figure 2 below;

Figure 2 Sharpe's Ratio for the Positive Screened Portfolio
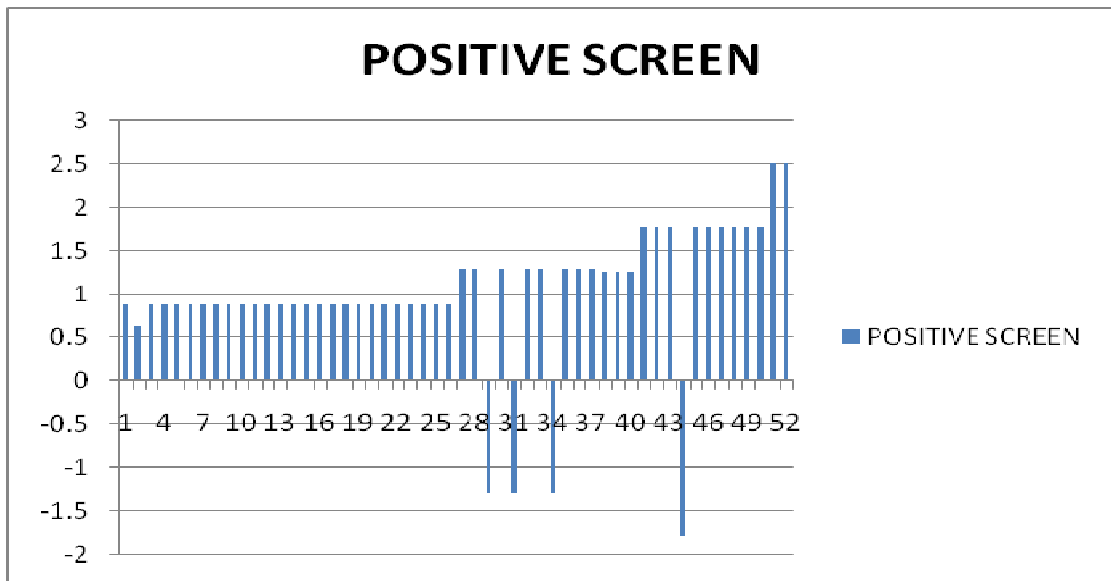
For the positively screened portfolio it was established that week 50 and 51 had the highest ratios of 2.6 and the lowest ratio was week 44 with -1.7 ratio.

4.3 Tests of Relationship between Social Screening and Performance

The study sought to determine whether a socially negatively screened portfolio yields more risk-adjusted returns than a positive screened portfolio. T-tests were carried out to determine whether there is significant difference between the risk and returns in negatively screened portfolio and that of the positively screened portfolio. This was done using SPSS version 20. The sample data was classified as per the two portfolios. Mean Sharpe Performance indices were computed for each of the portfolio. The Sharpe performance index was computed by taking the average rate of return of the portfolio subtract the risk free rate then the result was divided by the standard deviation of the return of the portfolio.

The mean estimates were subjected to F-test to establish if there were notable significant changes in the averages between the two portfolios. F-test is used here as a

diagnostic test to precede the T-test of the differences in means. The findings are as table 4.5 below

Table 4.3 Relationship between social screening and performance

	Sum of squares	df	Mean Square	F	sig
Between Groups	734.165	48	15.2950	13.0110	0.0280
Within Groups	3.5270	3	1.1760		
Total	737.6910	51			

When a calculated value is less than the threshold 0.05 then this shows significance since the value would fall in the wanted region, when the calculated value is more than the critical value 0.05 then the value does not fall in the wanted region and thereby insignificant.

The findings of Table 4.5 above indicate that the calculated p=0.0280 hence the computed F-statistic was significant at 95% level of confidence F(3,48= 13.011P-value <0.05). The findings presented in Table 4.6 below indicate a multiple comparison of the mean performance indices to establish the specific differences between the two portfolios.

Table 4.4 Comparison between mean performances

	Mean Difference(K-L)	Std Error	p-value	95% Confidence Interval of the Difference	
				Lower	Upper
Sharpe's Ratio Positive Screen(K) VS Sharpe's Ratio Negative Screen(L)	1.3638	0.1104	0.043	0.1419	1.0297

At the 5% level of significance, the p-value that is computed is 0.043, this shows that the computed value is less than the critical value of p=0.05.This implies significance since its less than 0.05 value.

Thus the findings of Table 4.6 above indicate that the average performance indices were significantly different between the positive screened portfolio and the negatively screened portfolio. A positive value of the mean difference indicates that the positively screened portfolio performs higher than the negatively screened portfolio over the sample five year period. A higher average Sharpe ratio implies that the positively screened portfolio has a better risk adjusted performance than the negatively screened portfolio.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter covers summary which gives a brief explanation of the findings of the study. The conclusion that can be deduced from the summary of the study. Also this chapter covers the recommendations and the suggestions for further research.

5.2 Summary and Interpretations

The 64 companies listed at the NSE were put through negative social screening and positive social screening. Five screens were used each for the negative and positive screening. The negative had 34 companies and the positive had 30 companies but to match the positive screened portfolio the 4 companies were dropped.

Weekly risk and returns were calculated. The standard deviations were the chosen risk measures, in terms of the average weekly raw returns for the five year period 2010-2014.The positive screened portfolio outperformed the negatively screened portfolio in terms of returns. Sharpe's performance measure was calculated and it was found out that the positive screened portfolio performed better than the negative screened portfolio. It was also found out that it is possible to socially screen out portfolios at the NSE into Negative and Positive portfolios. By using the indices outlined in Appendix II.

Despite there being a difference in the performance of the two portfolios, the study found out that the variation in weekly performance of stocks could not affect the overall performance of the screened portfolios. As shown in the figures 1 and 2.This implies that stakeholders should not be put off by the erratic weekly performance of stocks but rather look at the overall performance.

5.3 Conclusion

The study aimed at comparing the performance of negatively and positively screened portfolios at the Nairobi Securities Exchange. It was found out that positively screened portfolio performed better than the negatively screened portfolio for the five year period.

5.4 Policy Recommendations

The indices used in this study, S&P 500 Index and MSCI KLD 400 index are all international; it is therefore suggested by this study that the NSE should come up with indices for Positive and Negative Social Screening to be used by investors in decision making.

Since this study has established that positively screened portfolios have high returns than negatively screened portfolios, it is therefore recommended for investors to include inclusionary screens in their portfolio as this would earn high returns and at the same time do well to the society.

5.5 Limitations of the Study

The study was limited by using foreign indices for screening. The lack of indigenous indices for screening affected getting the proper firms for the local context; better screening could have been done using local indices.

The existence of unscrupulous NSE data vendors slowed down the process of obtaining the correct data for the study. Identifying the genuine, authentic and licensed data vendors took time.

5.6 Suggestions for Further Studies

With regional integration similar studies should be done in various securities exchanges in the Africa namely the Nigerian Stock Exchange (NSE), Johannesburg

Stock Exchange (JSE) and Dar es Salaam Stock Exchange (DSE). This will enable comparison in different countries.

A study should be carried out on how to come up with an efficient positively socially screened portfolio and the returns of the portfolio compared to the market portfolio or the negatively screened portfolio. This will give a better measure without having the returns of the portfolio being weighed down by poorly performing stocks.

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APPENDIX I: Listed Companies at the NSE as at 31ST DEC 2014

AGRICULTURAL
Eaagads Ltd
Kapchorua Tea Co. Ltd
Kakuzi
Limuru Tea Co. Ltd
Rea Vipingo Plantations Ltd
Sasini Ltd
Williamson Tea Kenya Ltd
AUTOMOBILES AND ACCESSORIES
Car and General (K) Ltd
Sameer Africa Ltd
Marshalls (E.A.) Ltd
BANKING
Barclays Bank Ltd
CFC Stanbic Holdings Ltd
I&M Holdings Ltd Ord
Diamond Trust Bank Kenya Ltd
Housing Finance Co Ltd
Kenya Commercial Bank Ltd
National Bank of Kenya Ltd
NIC Bank Ltd
Standard Chartered Bank Ltd
Equity Bank Ltd
The Co-operative Bank of Kenya Ltd
COMMERCIAL AND SERVICES
Express Ltd
Kenya Airways Ltd
Nation Media Group
Standard Group Ltd
TPS Eastern Africa (Serena) Ltd
Scangroup Ltd
Uchumi Supermarket Ltd
Hutchings Biemer Ltd
Longhorn Kenya Ltd
Atlas Development and Support Services
CONSTRUCTION AND ALLIED
Athi River Mining
Bamburi Cement Ltd
Crown Berger Ltd
E.A.Cables Ltd
E.A.Portland Cement Ltd
ENERGY AND PETROLEUM
KenolKobil Ltd
Total Kenya Ltd
KenGen Ltd
Kenya Power & Lighting Co Ltd
Umeme Ltd
INSURANCE
Jubilee Holdings Ltd
Pan Africa Insurance Holdings Ltd

Kenya Re-Insurance Corporation Ltd
Liberty Kenya Holdings Ltd
British-American Investments Company (Kenya) Ltd
CIC Insurance Group Ltd
INVESTMENT
Olympia Capital Holdings ltd
Centum Investment Co Ltd
Trans-Century Ltd
Home Afrika Ltd
Kurwitu Ventures
INVESTMENT SERVICES
Nairobi Securities Exchange Ltd
MANUFACTURING AND ALLIED
B.O.C Kenya Ltd
British American Tobacco Kenya Ltd
Carbacid Investments Ltd
East African Breweries Ltd
Mumias Sugar Co. Ltd
Unga Group Ltd
Eveready East Africa Ltd
Kenya Orchards Ltd
A.Baumann CO Ltd
Flame Tree Group Holdings Ltd
TELECOMMUNICATION AND TECHNOLOGY
Safaricom Ltd

Appendix II: Screening Criteria

S&P 500 Index- negative screening	
Adult Entertainment	Avoids companies that get involved in adult entertainment or the proceeds thereof whether directly or indirectly
Alcohol	Firms that produce, market, or otherwise promote the consumption of alcoholic beverages
GMOs	Avoids companies that deal with Genetically Modified Organisms, and processing of its products
Gambling	Avoids companies that deal with gambling or the proceeds of gambling whether directly or indirectly.
Tobacco	Manufacturers of tobacco products

MSCI KLD 400 Index -positive screening	
Board Diversity/Employee Policies	The number of directorship positions on corporate boards number of women, ethnic affiliation, religious background and the incorporation of people with disabilities
Environmental Impact	Includes companies that pollute, produce toxic products, and contribute to global warming; seeks proactive involvement in recycling, waste reduction, and environment cleanup
Human Rights	Includes all companies that directly or indirectly do not complicit in human rights violations; seeks companies that promote human rights standards
Labor Relations	Includes companies that have no worker exploitation and sweatshops; seeks strong union conditions relationships and employee welfare.
Corporate Governance	Firms that embrace good corporate governance practices including monitoring the actions, policies, practices, and decisions of corporations, their agents, and affected stakeholders

Appendix III: Negative Screened Portfolio

Name of Company	No Alcohol	No Adult Entertainment	No Tobacco	No Gambling	No GMOs
1. Eaagads Ltd	Y	Y	Y	Y	Y
2. Limuru Tea	Y	Y	Y	Y	Y
3. Car and General (K) Ltd	Y	Y	Y	Y	Y
4. Sameer Africa Ltd	Y	Y	Y	Y	Y
5. Marshalls (E.A.) Ltd	Y	Y	Y	Y	Y
6. Express Ltd	Y	Y	Y	Y	Y
7. Scangroup	Y	Y	Y	Y	Y
8. Hutchings Biemer Ltd	Y	Y	Y	Y	Y
9. Longhorn Kenya Ltd	Y	Y	Y	Y	Y
10. Atlas Development and Support Services	Y	Y	Y	Y	Y
11. Jubilee Holdings Ltd	Y	Y	Y	Y	Y
12. Pan Africa Insurance Holdings Ltd	Y	Y	Y	Y	Y
13. Kenya Re-Insurance Corporation Ltd	Y	Y	Y	Y	Y
14. Liberty Kenya Holdings Ltd	Y	Y	Y	Y	Y
15. British-American Investments Company (Kenya) Ltd	Y	Y	Y	Y	Y
16. CIC Insurance Group Ltd	Y	Y	Y	Y	Y
17. KenolKobil Ltd	Y	Y	Y	Y	Y
18. Total Kenya Ltd	Y	Y	Y	Y	Y
19. KenGen Ltd	Y	Y	Y	Y	Y
20. Kakuzi	Y	Y	Y	Y	Y
21. Rea Vipingo Plantations Ltd	Y	Y	Y	Y	Y
22. Sasini Ltd	Y	Y	Y	Y	Y
23. Williamson Tea Kenya Ltd	Y	Y	Y	Y	Y

24.	Olympia Capital Holdings ltd	Y	Y	Y	Y	Y
25.	Centum Investment Co Ltd	Y	Y	Y	Y	Y
26.	Trans-Century Ltd	Y	Y	Y	Y	Y
27.	Home Afrika Ltd	Y	Y	Y	Y	Y
28.	Kurwitu Ventures	Y	Y	Y	Y	Y
29.	CFC Stanbic Holdings Ltd	Y	Y	Y	Y	Y
30.	Crown Berger Ltd	Y	Y	Y	Y	Y

Appendix IV: Positive Screened Portfolio

Name of Company	Board Diversity/Employee Policies	Environmental Impact	Human Rights	Labor Relations	Corporate Governance
1. Barclays Bank Ltd	Y	Y	Y	Y	Y
2. E.A.Portland Cement Ltd	Y	Y	Y	Y	Y
3. I&M Holdings Ltd Ord	Y	Y	Y	Y	Y
4. Diamond Trust Bank Kenya Ltd	Y	Y	Y	Y	Y
5. Housing Finance Co Ltd	Y	Y	Y	Y	Y
6. Kenya Commercial Bank Ltd	Y	Y	Y	Y	Y
7. National Bank of Kenya Ltd	Y	Y	Y	Y	Y
8. NIC Bank Ltd	Y	Y	Y	Y	Y
9. Standard Chartered Bank Ltd	Y	Y	Y	Y	Y
10. Equity Bank Ltd	Y	Y	Y	Y	Y
11. The Co-operative Bank of Kenya Ltd	Y	Y	Y	Y	Y
12. B.O.C Kenya Ltd	Y	Y	Y	Y	Y
13. British American Tobacco Kenya Ltd	Y	Y	Y	Y	Y
14. Carbacid Investments Ltd	Y	Y	Y	Y	Y
15. East African Breweries Ltd	Y	Y	Y	Y	Y
16. Mumias Sugar Co. Ltd	Y	Y	Y	Y	Y
17. Unga Group Ltd	Y	Y	Y	Y	Y
18. Eveready East Africa Ltd	Y	Y	Y	Y	Y
19. Kenya Orchards Ltd	Y	Y	Y	Y	Y
20. Nation Media Group	Y	Y	Y	Y	Y
21. Standard Group Ltd	Y	Y	Y	Y	Y
22. TPS Eastern Africa (Serena) Ltd	Y	Y	Y	Y	Y
23. Kenya Airways	Y	Y	Y	Y	Y
24. Safaricom	Y	Y	Y	Y	Y
25. Kenya Power & Lighting Co Ltd	Y	Y	Y	Y	Y
26. Umeme Ltd	Y	Y	Y	Y	Y

27.	Kenya Power & Lighting Co Ltd	**Y**	**Y**	**Y**	**Y**	**Y**
28.	Umeme Ltd	**Y**	**Y**	**Y**	**Y**	**Y**
29.	Athi River Mining	**Y**	**Y**	**Y**	**Y**	**Y**
30.	Bamburi Cement Ltd	**Y**	**Y**	**Y**	**Y**	**Y**