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**SHARIAH STOCK SCREENING PROCEDURE
SHARIAH COMPLIANT LISTED EQUITIES IN KENYA**

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the Research Proposal contains no material previously published or written by another person except where due reference is made in the Research Proposal itself.

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ABBREVIATIONS

FTSE - Financial Times Stock Index

MSCI - Morgan Stanley Capital International

S&P - Standard & Poor

SAC – Shariah Advisor Council

PBUH – Peace be upon him

CMA – Capital Market Authority

1 INTRODUCTION

1.1 Background of the study

Kenya vision 2030 is the country's development blue print covering the period 2008 to 2030, it aims at transforming Kenya into an industrialized middle-income country, and among the priority sectors that will see to this vision is the creation of a vibrant and a globally competitive financial service sector. This will create jobs and promote high levels of savings so as to finance Kenya's overall investment needs and make Kenya the regional financial services hub. The capital markets has been identified as a pivotal driver of the financial service sector, along the dimensions of increasing the accessibility/ deepening of formal financial services, efficiency when it comes to boosting liquidity ratios and the ratio of bonds turnover to bond market capitalization and stability in terms of reducing the volatility in the stock exchange indices.

With the above vision the Capital Market Authority has rolled out its 10 year capital market master plan that is set to run for the period 2014 to 2023. This Master Plan will transform Kenya into an international financial center that will support sectors like; agriculture, infrastructure and technology, and also leverage the strength of its broader financial sector to develop innovative products and services, including derivatives, asset management and Islamic finance. The promising market for Islamic services is still nascent in Kenya but essential in the realization of CMA's master plan. The CMA describes Islamic capital market as a niche where Kenya has a comparative and competitive advantage. Kenya has the ambition of becoming the Islamic finance hub of East Africa and it wants to leverage its first mover due to the largely untapped potential for its development.

Iqbal & Molyneux (2005) confer that 30 years ago, Islamic finance was absolutely unheard of. Since then, it has gained momentum and has been growing very fast at a double digit average annual rate of growth. Today, Islamic banking is not a negligible or merely temporary phenomenon but it is here to stay and there are signs that it will continue to grow and expand. Half of the 1.4 billion Muslims worldwide would opt for Islamic finance if given a competitive alternative to conventional services. The market has been growing at over 30% annually since 2000 and is set for continued strong growth. Wyman (2009). Globally Islamic finance assets grew at double-digit

rates in the past decade to reach an estimated \$1.8 trillion at the end of 2013, with further growth expected Ernst & Young (2014)

Lagarde (2015) shares that, Islamic finance has the potential to contribute to higher and more inclusive economic growth by increasing access of banking services to underserved populations. A large segment of the Muslim population remain financially underserved, with only one-quarter of adults having access to bank account. Islamic finance's risk-sharing features and the strong link of credit to collateral means that it is well-suited for Small and Medium-Sized Enterprise (SME) and startup financing which can promote inclusive growth. She adds Islamic finance has the potential to promote financial stability because its risk-sharing feature reduces leverage and its financing is asset-backed and thus fully collateralized. Lastly it offers profit-sharing and loss-bearing accounts that can help mitigate losses and contagion in the event of banking sector distress.

Owing to the licensing of Gulf African Bank and First Community Bank by CBK in 2007, there has been an ever increasing interest in Islamic finance in Kenya. The largely unbanked Kenyan Muslims and proponents of Islamic finance are amazed by the sudden up take of Islamic finance by conventional banks like Standard Chartered Bank, Barclays Bank, National Bank, Chase Bank, and Kenya Commercial Bank. Foreign investors like Dubai International bank have also shown interest in owning a stake of this hugely contested piece of pie.

In an effort to enhance the growth of Islamic asset management and capital market products, the CMA, licensed FCB capital in 2009 and Genghis Capital's Amana fund, which are the very first Islamic mutual fund in the country. The concept of Islamic insurance (Takaful) has also been positively accepted since its inception in 2011. Otieno (2013) points out that since its adoption in the country, there are five Takaful operators which includes: Takaful Insurance of Africa, Cannon Insurance, Metropolitan Life, Jubilee Insurance and UAP Insurance who have opened a window to deal in Takaful Insurance. He adds that Kenya-Re has also shown interest in growing their business through establishment of Re-takaful Department entirely dedicated in reinsuring Takaful operators risks.

It is clear that Islamic Finance is fast gaining popularity among Kenyans, but its supporters are plagued by its constricted avenues for investment. In a spirit to fully include Islamic finance in the financial system and increase shariah compliant investment avenues and financial products, the study will develop a stock screening procedure, screen the stocks on the Nairobi securities

exchange and develop a shariah index. The study will focus on the different shariah stock screening methodologies used by the Shariah Advisory Council of Malaysia, Dow Jones Islamic Market Index, FTSE Islamic Index, S&P Islamic index and MSCI shariah index, then develop a customized stock screening technique that will best suit the Kenyan market.

1.2 Problem statement

The aim of this research is to add to the minimal Shariah compliant investment avenues for Muslim investors, Islamic funds and Islamic institutions like the banks and takaful in Kenya. The study seeks to establish the potential and the problems facing Islamic finance.

Islamic finance has received a growing audience and acceptance in Kenya since its inception in 2007. The uptake of Islamic finance by some of Kenya's largest banks and insurance companies continues to show the great potential of Islamic finance in the country. Laving (2013) quotes Mr. Wasim Saifi, the head of Standard Chartered Saadiq Malaysia, who commented, by the end of this decade, it is quite possible that banking complying with Shariah law could grow to account for up to 10% of banking assets in five or six sub-Saharan African countries, including Kenya and Nigeria.

The said has also had a fair amount of challenges, Ndungu (2011) relates that among the challenges facing the Islamic finance industry in Kenya are lack of; shariah compliant investment vehicles, an enabling legal and regulatory framework and awareness by majority of the populace which hinders the uptake of these investments. He added that for the country to fully embrace Islamic Finance, there is need to extend beyond the offering of shariah compliant products by introducing such investment vehicles like unit trusts, corporate bonds (sukuk) and takaful products and shariah compliant treasury bills and bonds (government sukuk). Hassan Bashir, CEO Takaful Insurance of Africa, further echoed the former governor's sentiments, affirming that Takaful Insurance of Africa does not invest premiums collected on the Nairobi Securities Exchange, most investments are in the two shariah compliant banks, real estate and short-term lending to companies importing crude oil. Takaful is also under a regulatory requirement to invest 10% of its premiums in treasury bills and bonds which are not shariah compliant and so the interest earned from it is put in a charity account. (Bloomberg)

Therefore in a bid to solve the problem of a constrained shariah investment universe and increase shariah compliant investment avenues in Kenya, the study will provide a list of shariah compliant equities for potential Muslims and ethical investors and also develop a shariah compliant index which will act as a benchmark as well as a guide on shariah equities to invest in.

1.3 Research objectives

The objectives of the study are to:

1. Develop a shariah stock screening methodology.
2. Determine the shariah compliant listed equities under the Nairobi Securities Exchange and develop a shariah index

1.4 Significance of the study

A shariah compliant equity index provides Muslim and other investors of any faith, an opportunity to participate in financial markets while remaining compliant with the Islamic shariah, hence investors who do not wish to invest in stocks of companies that engage in activities that they deem to be socially harmful or against their beliefs have a safe haven to invest. Creation of an index will promote financial inclusion of unbanked Kenyans and specifically the Muslim communities in the country, adding to financial development and wealth creation in the economy.

The Capital Market Authorities believes that developing an Islamic capital market in Kenya will add to the depth and diversity of the overall capital markets as well as provide a significant contribution to the overall growth of the financial services industry. Shariah compliant index attracts investment flows from international funds that must adhere to Shariah norms, enable the creation of a diversified portfolio and development of mutual funds, socially responsible investment products and portfolio management services while also facilitating access to the world's financial markets.

Shariah compliant indices are also widely used by Islamic and conventional banks, takaful firms, asset managers and other financial institutions for various purposes including; performance benchmarks for shariah compliant portfolios, the basis for index-linked investment products such as exchange traded funds, mutual funds and structured products and selection pools for actively managed portfolios.

2 LITERATURE REVIEW

2.1 Introduction

This paper focuses on investments and the principles of equity investment in Islam. Hyat *et al* (2013) defined an investment as the commitment of funds to one or more assets that will be held over some future time period in order to gain future value by sacrificing the present value of asset. They add that investment in Islam must be guided by two things: first, instead of fixed return tied up with their face value, investment must be made on profit and loss sharing basis with the determination of a pro rata profit distribution. Therefore, neither the principal nor a rate of profit can be assured, and return is attached to the actual profit earned or loss suffered by the business venture unless the loss is caused by negligence or mismanagement. Second, the amount pooled together must be invested in a business compatible with Shariah teachings. It covers also that not only the channels of investment, but also the conditions and contract concluded by the parties must be adherent to Islamic principles of transaction

Adam & Abu Bakar (2012) describe shariah, as an Islamic law derived from the divine revelation and practice of the prophet (pbuh); namely, al-Quran (holy book) and al-Hadith (teachings of the prophet pbuh). Shariah law prohibits elements such as usury (riba or interest), gambling (maysir) and uncertainty (gharar). These elements are present in many conventional financial activities, hence for a Muslim, this are prohibited practices, which are considered as a very grave sin.

Muslims are greatly discouraged from taking part in any activity that does not comply with the teachings of Islam. Hambali *et al* (2010) defines Islamic law, as that which is concerned with the moral or ethical value of commercial transactions, they state that Muslims are governed by rules and regulations in respect of that which is halal (permissible) and haram (prohibited). Shariah prohibits income derived from commercial transaction with elements of interest, production and sale of alcoholic substances, gambling, hoarding and deceptive purchases.

Jamal, Hambali & Ali (2010) state that, the most outstanding aspect of shariah is the depth of its application and its practical effect on the daily life of Muslims, they further continue, that shariah prescribes, not only the manner and frequency of worship, religious and spiritual matters but, it extends to all aspect of a believer's life (Muslim). They advise that Muslims should seek to abide

by shariah tenets in matters of business and finance just as much as they do with their personal, social and family affairs.

Muslims ought to be very cautious and vigilant when identifying investment opportunities so that they do not select an investment that is contrary to their religion. There is no standard definition of shariah stock screening, nonetheless, by referring to the definition on stock screening; it is the process of finding stocks that meets an investor's selection criteria. Hence we can define shariah stock screening as, the process of determining shariah compliant stocks.

Adam & Abu Bakar (2012) explain shariah screening as a process that requires analytical judgment, thorough research, a well-elaborated process that is conducted to eliminate any involvement with sinful elements. They add that screening could be either positive or negative; where positive screening refers to the investment in companies that are involved with providing basic necessities to the society while negative screening will screens companies that have high concentration on unethical activities such animal exploitation and bad relationship with employees.

Ethical Investing, is a term used to describe a range of investment from socially responsible, sustainable or green investment where funds apply an ethical screen to a company. Ethical investment is very closely related to shariah investment, the difference being that the latter applies Islamic Law, while the earlier can be customized to suite the specific needs of a particular investor.

Hussein (2004) points out some of the pros and cons for ethical investing. He articulates; companies which adopt and implement an effective corporate responsibility policy are better positioned to avoid any environmental and social crises that could lead to reputation damage. Ethical behavior increases trust as well as enhances and protects corporate reputation. It opens up dialogue with stakeholders which makes it easier for firms to identify risks by highlighting issues before they reach a crisis point. Lastly environmentally superior products can also contribute to product differentiation and developing and strengthening customer loyalty. Firms that are regarded as leaders in environmental and human rights are able to attract and retain talented employees, cut recruitment costs and remain ahead of the competition.

On the other hand, the potential hidden costs associated with implementing ethical screens adversely affects investment performance and therefore should not be ignored. Unscreened benchmarks normally outperform ethical investment, this is because ethical investing causes

additional screening and monitoring costs, creates a smaller investment universe, and restricts diversification. Ethical screening tends to eliminate large firms from the investment universe and as a result remaining firms tend to be smaller and have more volatile returns. Diversification is hindered, because ethical investments eliminates or favors certain industries and lastly it may involve a higher risk, that does not reciprocate to a higher yield/return since investors do not invest in clearly profitable stock.

2.2 Shariah methodology by major Islamic indices

There are a number of things that should be looked into before considering an equity, shariah complaint. There is no standard shariah screening method. Different scholars have different opinions on what is tolerable and what is not, when it comes to Islamic equities. The focus for this study will be to look at the screening methodologies set by the Shariah Advisory Council of Malaysia, Dow Jones Islamic Market Index, FTSE Islamic Index, S&P Islamic index and MSCI shariah index. These indexes were chosen because their subsets are the most prominent indexes and funds in the industry.

2.2.1 Screening in Malaysia

The screening criteria in Bursa Malaysia is set by the Shariah Advisory Council (SAC). It is conducted twice a year and the list of stocks are published and listed for the public. Using sources of shariah and general shariah principles, SAC identifies the below four criteria for a particular company to be deemed ineligible for further screening. Mahlknecht & Hassan (2011)

They include:

1. Riba as the primary activity of the company

If the primary activity of the company is based on riba (interest) as practiced by conventional financial institutions like commercial banks, merchant banks and finance companies. This criteria is based on the Quranic Verses on surah Al- Baqara (2:275-276) which says "Those who consume interest cannot stand (on the Day of Resurrection) except as one stands who is being beaten by Satan into insanity. That is because they say, "Trade is (just) like interest." But Allah has permitted trade and has forbidden interest. So whoever has received an admonition from his Lord and desists may have what is past, and his affair rests with Allah. But whoever returns to (dealing in interest

or usury) - those are the companions of the Fire; they will abide eternally therein. Allah destroys interest and gives increase for charities. And Allah does not like every sinning disbeliever.” (Sahih International)

2. A company whose primary activity is gambling (maysir).

This are companies running casinos, gaming and other activities that involve gambling. This criteria is based on the Quranic verse on surah Maidah (5:90-91) that prohibits, “O you who have believed, indeed, intoxicants, gambling, (sacrificing on) stone alters (to other than Allah), and divining arrows are but defilement from the work of Satan, so avoid it that you may be successful. Satan only wants to cause between you animosity and hatred through intoxicants and gambling and to avert you from the remembrance of Allah and from prayer. So will you not desist?”.

3. A company that is in the production and sale of goods and services that are prohibited in Islam.

They include; processing, producing and marketing alcoholic drinks, supplying non-halal meat like pork, and provision of immoral services like prostitution, pubs, discos etc. These criteria is based on the Quranic verse in surah Al-Maidah (5:3) which states, “Prohibited to you are dead animals, blood, the flesh of swine, and that which has been dedicated to other than Allah , and (those animals) killed by strangling or by a violent blow or by a head-long fall or by the goring of horns, and those from which a wild animal has eaten, except what you (are able to) slaughter (before its death), and those which are sacrificed on stone altars, and (prohibited is) that you seek decision through divining arrows. That is grave disobedience. This day those who disbelieve have despaired of (defeating) your religion; so fear them not, but fear Me. This day I have perfected for you, your religion and completed My favor upon you and have approved for you Islam as religion. But whoever is forced by severe hunger with no inclination to sin - then indeed, Allah is Forgiving and Merciful” and Quran surah Al-Isra (17:32) which advices, “And come not near to the unlawful sexual intercourse. Verily, it is a Fahishah [i.e. anything that transgresses its limits (a great sin)], and an evil way (that leads one to Hell unless Allah forgives him)”.

4. Gharar (uncertainty)

The primary activity of companies that deal in uncertainty are like those of conventional insurance trading. The prohibitions of gharar are depicted by a hadith narrated by Ahmad and Ibn Majah on

the authority of Abu Said Al Khudriy, which states: “The Prophet (pbuh) has forbidden the purchase of the unborn animal in its mother's womb, the sale of the milk in the udder without measurement, the purchase of spoils of war prior to their distribution, the purchase of charities prior to their receipt, and the purchase of the catch of a diver.” Also Quran Al- baqara (2:188) says, “and eat up not one another's property unjustly (in any illegal way e.g. stealing, robbing, deceiving, etc.), nor give bribery to the rulers (judges before presenting your cases) that you may knowingly eat up a part of the property of others sinfully”. Quran An-nisa (4:29) “O you who have believed, do not consume one another's wealth unjustly but only (in lawful) business by mutual consent. And do not kill yourselves (or one another). Indeed, Allah is to you ever Merciful”.

Once those four criteria's have been established, the challenge lies in evaluating companies that have mixed activities, i.e. companies that have both acceptable and forbidden activities. Shariah Advisory Council applies several additional criteria for such companies: (Bacha *et al*, 2013).

First the core activity must not be forbidden and that the haram element must be very small relative to the main line of business, second the public perception or image of the company must be good and lastly the core activities of the company must have importance and *maslahah* (benefit in general). The *haram* element other than being small, should involve matters such as '*umum balwa* (common plight) and '*urf* (custom) and involves the rights of non- Muslim community, which is accepted in Islam

The above procedures are subjective, for Shariah Advisor Council (SAC) to translate these subjective criteria into actionable filters, its uses a two phase screening criteria; a quantitative method and a qualitative method. Mahlkecht & Hassan (2011)

- Quantitative method

The object of this is to determine the percentage contribution of the non-permissible activities to the company's income statement and profit after tax. The computation of the percentages is as follows.

Step 1: determine the earnings (Total income/revenue) and profit before tax of the company.

Step 2: identify and measure the income/earnings and profit before tax from the non-permissible activities

Step 3: determine the percentages as follows

- a) $[\text{Earnings from non halal activities}/\text{total earnings of firm} \times 100]$
- b) $[\text{profit before tax from non halal activities}/\text{PBT all activities of the firm} \times 100]$

Step 4: Compare the percentage of the earnings and PBT with the thresholds level marks provided by SAC. The tolerable level of mixed contributions for permissible and non- permissible activities established by SAC are: (Abduh *et al* 2013)

The 5% benchmark. This benchmark is applied to assess the level of mixed contributions from the activities that are clearly prohibited such as riba, gambling, liquor and pork.

The 10% benchmark. This is applied to assess the level of mixed contributions from the activities that involve the element of “*umum balwa*,” which is a prohibited element affecting most people and difficult to avoid, e.g. contribution from interest income of fixed deposits held in conventional banks.

The 20% benchmark. This is used to assess the level of contribution from mixed rental payments from non shariah compliant activities such as the rental payment from a premise that involved gambling, sale of liquor, etc.

The 25% benchmark. Assesses activities that are generally permissible according to shariah and have an element of *maslahah* to the public, but there are other elements that may affect the shariah status of these activities. A good example is hotel and resort operations, share trading etc., these activities may involve other activities that are deemed non permissible to shariah.

- Qualitative method

This method is more on a case by case basis. It is applicable for cases where the core business activity of the company has *maslahah* (benefit) to the *ummah* (society) but includes small minor elements of non- permissible activity. The assessment is based on the above benchmark.

2.2.2 Shariah screening by Dow jones Islamic index.

The screening procedures used by Dow jones is more elaborate and tighter than those of Malaysia’s SAC. This is because Dow jones has no tolerance for mixed business unlike SAC and also the stringent use of the balance sheet unlike SAC that only uses income statement. Screening by Dow jones is done in two steps, i.e.:

- Qualitative analysis

Dow Jones starts with eliminating companies related to all the following activities: alcohol, liquor, pork, conventional financial services like (banking, insurance, merchant banking etc.), hotels, entertainment (including cinema, music), tobacco, defense and weapons manufacturing. (Bacha *et al* 2013)

- Quantitative analysis

This second procedure is aimed at identifying firms with excessive leverage in their capital structure and also identifying firms with unacceptable levels of interest income and liquidity. To find out about this, the following three key ratios are applied:

- 1) Debt to trailing 12-month average market capitalization (debt to TTMAMC) computed as:

$$\left[\frac{\text{Short term debt} + \text{current portion of long term debt}}{\text{trailing 12 month average market cap}} \right] \times 100 < 33\%$$

- 2) Liquid assets to TTMAMC which is computed as:

$$\left[\frac{\text{accounts receivables} + \text{marketable securities} + \text{interest bearing instruments}}{\text{TTMAMC}} \right] \times 100 < 33\%$$

- 3) Receivables to TTMAMC computed as:

$$\left[\frac{\text{account receivables} + \text{trade notes and other receivables}}{\text{TTMAMC}} \right] \times 100 < 33\%$$

2.2.3 Screening by S&P shariah indices

- Sector based screening

S&P excludes any business related to the following: pork, alcohol, gambling, financials, advertising and media (newspaper are allowed, but subsidiaries are analyzed individually), pornography, tobacco and trading of gold and silver as cash on a deferred basis.

- Accounting based screens

After removing companies that go against shariah principles, the rest of the companies are examined for the compliance of the following financial ratios.

- a) Leverage compliance

This is measured as: Debt / market value of equity (12-month average) < 33 %

b) Cash compliance

This is calculated as following:

- Accounts receivables / market value of equity (12 month average) < 49 %
- (Cash + interest bearing securities)/ market value of equity (12 month average) < 33%
- c) Revenue share from non- shariah compliant activities

Revenues from non shariah compliant activities are permissible, if they comply with the following threshold:

Non permissible income like interest income/ revenue < 5%

2.2.4 FTSE shariah stock screening.

Screening by FTSE is carried in two stages. Screening starts with business activity screening followed by financial ratio screening as shown below.

- Business Activity Screening

Companies involved in any of the following activities are filtered out as non Shariah compliant: conventional finance (non-Islamic banking, finance and insurance, etc.), alcohol, Pork related products and non-halal food production, packaging and processing or any other activity related to pork and non-halal food, entertainment (casinos, gambling and pornography), tobacco; weapons, arms and defense manufacturing.

- Financial Ratios Screening

The remaining companies are then further screened on a financial basis. The following financial ratios must be met for companies to be considered Shariah-compliant: Debt to total assets and cash and interest bearing items to total assets should be less than 33.333%. Accounts receivable and cash to total assets should be less than 50% and lastly total interest and non-compliant activities income should not exceed 5% of total revenue.

2.2.5 MSCI Islamic Index Screens

- Business Activity Screening

MSCI shariah index does not allow investment in companies which are directly active in, or derive more than 5% of their revenue (cumulatively) from the following activities: alcohol, tobacco pork

related products, conventional financial services, defense and weapons, gambling and casino, music, hotels, cinema and adult entertainment

- Financial Screening

MSCI uses the following three financial ratios to screen for companies: total debt over total assets, sum of a company's cash and interest bearing securities over total asset and sum of a company's accounts receivables and cash over total assets, none of the above these ratios should exceed 33.33%.

2.3 Differences among the indices

Looking at the above discussed indices, the screening methodology used by Malaysia is slightly different and less stringent as compared those of the Dow Jones, FTSE, S&P and MSCI. The business screen for Malaysia as well as that of the four indices are the same, the difference comes in financial screening where Malaysia checks for earnings from non halal (non-permissible) activities to total earnings of the firm and profit before tax from non halal activities to the total profit before tax of the firm. Dow Jones Islamic Market Index, FTSE Islamic Index, S&P Islamic index and MSCI shariah index all check for the level of debt, liquidity and interest income to either the market capitalization or total assets of the firm. Also Malaysia allows mixed companies i.e. companies with both permissible and non-permissible activities while these indices do not allow for such. The main reason to this is the fact that Dow Jones Islamic Market Index, FTSE Islamic Index, S&P Islamic index and MSCI shariah index, all are big indices and have a very large investment universe compared to Malaysia which is restricted only to the equities listed on Malaysia's bursa.

Another major difference among the indices is the use of market capitalization versus total assets as ratio divisor. Dow Jones Islamic Market Index and S&P Islamic index use market capitalization as their ratio divisor, while FTSE Islamic Index, and MSCI shariah index use total assets. Derigs & Marzban (2008) argue that the funds and indices using market capitalization as divisor claim that it reflects the real worth of a company as valued by the market and they use a trailing average to smooth the measure and to eliminate any seasonality effects. On the other hand, the funds and indices that use total assets as divisor consider it as being the more appropriate measure since companies are valued from a trusted accounting perspective and each measurement is independent

from any external market influences or speculations. They add that an advantage of using market capitalization to total assets is that, it enables continuous Shariah screening, since market capitalization is independent from the publication of financial statements and can be directly calculated from market prices. A disadvantage of using total assets is that if the financial information provided by the different companies is not accumulated using the same accounting principles, the total assets value is not an appropriate measure because depending on the accounting principles used, total assets may be inconsistently valued.

2.4 Common financial screens

From the above it is very clear that the procedures for stock screening are almost similar for all the indices. The indices first undertake a business screen where the core activities of the firms are checked. A second screen mostly referred to as financial screen is done to check whether the level of debt, liquidity and interest income are consistent with shariah requirements. The slight differences occur because of various viewpoints by scholars on the financial characteristics of firms that can be regarded as shariah compliant companies. Abdul Rahman, Yahya and Mohd Nasir (2010) discussed these three common financial screens used by most shariah indices as described below.

1) A company finances its capital through debt

Borrowing money from conventional financial institutions to finance capital has brought about two views. Because such a case creates the issue of shareholders liability and *riba* (interest), the first view takes a firm stance to prohibit investment in such companies. Proponents of this view argue that every shareholder is a *sharik* (partner) to the company and in Islamic jurisprudence a partner is an agent for the other partners in matters of joint business. If it's known to the shareholder that the company is involved in un-Islamic activity, yet he still wants to hold a stake in this company then, it means that he has authorized the management to proceed with a non-Islamic transaction. It is argued that he is not only responsible for giving his consent to un-Islamic transaction, but that transaction will also be rightfully attributed to himself, because the management of the company is working under his tacit authorization.

On the other hand most present day scholars argue that a joint stock company is different from a simple partnership business structure. Policy decisions in a joint stock company are under taken by the majority and thus a company cannot give veto power to each shareholder. Therefore, any

action taken by the company cannot be attributed to every shareholder in his individual capacity. They add that borrowing on interest which is a grave sinful act does not render the whole business of the borrower as haram (impermissible). Responsibility of willfully indulging in a transaction of interest rate lies with the person who devours it, but does not render the whole business of a company unlawful.

2) company keeps its surplus money in an interest-bearing account

These has also led to a debate among scholars. One side of scholars argue that riba (interest) is strictly forbidden in Islam and any transaction, which is related to riba, is haram (forbidden). Thus, a company that has an interest income is not permissible for investment. The other group of scholars argues that if a company is engaged in a halal business, but it keeps its surplus money in an interest-bearing account, where interest income is received, it does not render all the business of the company unlawful. Majority of the scholars agree that such company is permissible for investment with the following conditions: first, the amount of interest income is not significant compared to the total income of the company and second, the proportion of interest income from the dividend paid to the shareholder must be purified, for example, by giving a specified proportion to charitable organizations.

3) A company has a significant proportion of liquid assets

Shares of a company are negotiable only if the company owns some non-liquid assets. A particular company is not permissible for investment if all the assets are in liquid form. Almost all scholars reach a consensus about this principle but the determination of the proportion of non-liquid assets of a company for the negotiability of its share is still debatable.

Some scholars are of the view that the ratio of non-liquid assets must be at least 51 percent. They argue that if such assets are less than 50 percent, most of the assets are in liquid form. Other scholars are of the opinion that even if the non-liquid asset of a company is less than 51 percent but greater than 33 percent, its shares can be treated as negotiable.

2.5 Rational for financial screening ratios

Htay, Abedeen and Salman (2013) give the rational for using the different financial screening ratios by all the Islamic indexes.

- Interest based debt

Most companies obtain financing on interest based basis, especially in countries where shariah complaint financing instrument are unavailable. You will rarely find companies that will either be debt free or only have shariah-complaint debt in its balance sheet. Shariah scholars recognize this, and so they have legitimized investment in companies with interest-based debt to less than 33% of their equity. They base this on the Hadith of the prophet (pbuh) when he advised Abu Bakr to not donate more than one third of his wealth, and commented that one third is too much. (Derigs & Marzban 2008)

- Account receivables

Shariah scholars require that majority of any company asset should not be in liquid form. This is because, it will lead to purchase of money for money, or less money, and that would volatile the principle of shariah, where money (debt or cash) cannot be exchanged except at par value and spot basis. Shariah recognizes account receivable as debt due to the company. So if the majority of company asset is account receivable the subscription to shares of such company should only take place at par value. However, in case the account receivables is less than the majority of assets, the purchase of shares would be considered as the sale of real assets. This opinion is derived from the legal maxim stating that “Majority deserves to be treated as the whole of a thing.

- Interest income

Usually companies deposit cash in interest-bearing current accounts and also invest surplus funds in different financial instruments. Interest earned from the above (cash and short term securities) renders it non-shariah complaint. Though, shariah scholars have approved investment in such a company as long as the interest income is less than 5% of total income and it is detached from the dividend and channelized to the charity.

- Purification of earnings and dividend

Some shariah scholars state that the non-shariah-complaint portion of revenues e.g. interest income received by shariah-complaint investment universe must be cleansed. The impure income has to be given to charity or avenues of public interest

3 METHODOLOGY

3.1 Research design

This is a descriptive research in the field of Islamic equity investments. The study seeks to develop a screening procedure, determine the shariah compliance of the equities listed at the NSE and developed an Islamic index. It describes the shariah equity screening procedure and the index construction methodology by borrowing the techniques used by Dow Jones, Bursa Malaysia, FTSE, MSCI and S&P Islamic indices.

3.2 Population & sample of the Study

The population of the study will be all the 62 companies listed on the Main Market segment of the NSE as at 31st December 2014. The study will not use a sample because of the small size of the population.

3.3 Data Collection

The study is exclusively based on secondary data. Data collected will be for both screening and index construction purposes which includes; the nature of operations for each company, short term debt and current portion of long term debt, cash and cash equivalents, short term investments and accounts receivable, daily share price and total number of issued shares for each company. Data will be for the period 1st January 2014 to 31st December 2014 collected from both the NSE and individual company's website.

3.4 Data analysis

Because of both the qualitative and quantitative nature of the study, the data analysis will consist of a two-step process, first justifications of the rules set by the screening procedure and second using Microsoft Excel in determining the shariah compliant equities in Kenya and also in the developing of the shariah index. The screening procedure will involve two stages first eliminating companies whose core activities are not in line with shariah and second using financial ratios on the remaining companies to check whether their debt, liquidity and interest income ratios are above the required levels. Once this is established the procedure will be used to determine the shariah compliant equities in Kenya and then develop a shariah compliant index.

3.5 Shariah screening & Index construction

3.5.1 Screening methodology

Just like most shariah screening procedures, screening will be in two stages.

- 1) Business screening: screening in terms of company activities, product and industry.
- 2) Financial screening: computation of a set of financial ratios.

3.5.1.1 Business screening

This is the first stage of screening. Business screening ensures that companies with non- shariah compatible activities or products are excluded. These activities and products are:

Operations based on *riba* such as activities of financial institutions like commercial banks and finance companies, operations involving gambling, operations containing elements of *gharar* (uncertainty) such as conventional insurance companies and lastly activities involving the manufacture and/ sale of haram products such as liquor, pork and meat not slaughtered according to Islam. (Abdul Rahman *et al*, 2010). This are the main activities and products not permissible due according to shariah based on the Quran and Hadith (teachings of the prophet pbuh).

For a fairly larger investment universe, the study will tolerate companies with mixed businesses i.e. Both halal and haram activities. The research will use the below criteria and benchmarks set by the Shariah Advisory council for Malaysia.

First the core activity must not be forbidden and that the haram element must be very small relative to the main line of business, second the public perception or image of the company must be good and lastly the core activities of the company must have importance and *maslahah* (benefit in general). The *haram* element other than being small, should involve matters such as '*umum balwa* (common plight) and '*urf* (custom) and involves the rights of non- Muslim community, which is accepted in Islam

The 5% benchmark. This benchmark is applied to assess the level of mixed contributions from the activities that are clearly prohibited such as *riba*, gambling, liquor and pork.

The 10% benchmark. This is applied to assess the level of mixed contributions from the activities that involve the element of "umum balwa," which is a prohibited element affecting most people

and difficult to avoid, e.g. contribution from interest income of fixed deposits held in conventional banks.

The 20% benchmark. This is used to assess the level of contribution from mixed rental payments from non shariah compliant activities such as the rental payment from a premise that involved gambling, sale of liquor, etc.

The 25% benchmark. Assesses activities that are generally permissible according to shariah and have an element of *maslahah* to the public, but there are other elements that may affect the shariah status of these activities. A good example is hotel and resort operations, share trading etc., these activities may involve other activities that are deemed non permissible to shariah.

3.5.1.2 Financial screening

Upon passing the business screening the stock will be subjected to a quantitative screening to identify firms with excessive leverage in their capital structure and unacceptable levels of interest income and liquidity. The rationale for the screens used are necessary for the following reasons as stated by Khatkhatay & Nisar (2007); Due to the scarcity of alternative Islamic modes of financing available, the reliance of almost all companies on interest-based borrowings to part finance their business, the pervasive nature of interest-based transactions in the modern economy, leading to the inevitability of all businesses having to deal with banks for various purposes including short-term treasury management, keeping fixed deposits with banks in order to avail of bank guarantees and issue letters of credit, maintain cash balances with banks to facilitate transactions, etc. and lastly the prohibition of exchanging debts and cash at other than par values

In this stage, three financial screening ratios will be adopted to determine the level of debt, liquidity and interest income. Market capitalization will be the divisor for these financial ratios as well as our index methodology because it reflects the real worth of a company as valued by the market. Market capitalization unlike total asset also enables continuous shariah screening since it is independent from the publication of financial statements (which may be arrived at using different accounting principles) and can be calculated directly from market prices. (Derigs & Marzban 2008)

The permissible range for the debt ratio will be capped at 33%. As in the case for Dow Jones, FTSE, MSCI and S&P Shariah indices. Derigs & Marzban (2008) share that in a Hadith (teaching of the prophet), where the Prophet (pbuh) advised Abu Bakr not to donate more than one third of his wealth and commented, "one third is too much". This can also be based on a fiqh (Islamic jurisprudence) question which inquired whether a commodity that is part gold and part brass qualifies as gold for purposes of applying the rules of riba, it was resolved that one should look at the percentage of gold in the commodity, if its greater than a third, it is gold.

The liquidity threshold will be capped at 50% as in the case for FTSE and S&P Shariah indices basing this on a fiqh rule which states "Majority deserves to be treated as the whole of a thing". Lastly a just like all the major Islamic indices a 5% threshold will to apply on interest income. This is based on pure Ijtihad (logic/reasoning) of the Shariah scholars and the fact that individual Islamic investors have no control over the whole business practices of companies that are managed in a non-Islamic manner.

The financial ratios used were:

1) Debt

$$\left[\frac{\text{total debt}}{\text{12 months average market capitalization}} \right] \times 100 \leq 33\%$$

Total debt = short term debt + current portion of long term debt.

2) Liquidity

$$\left[\frac{\text{cash and cash equivalents} + \text{short term investments} + \text{accounts receivable}}{\text{12 months average market capitalization}} \right] \times 100 \leq 50.0\%$$

3) Interest income

$$\left[\frac{\text{cash} + \text{short term securities}}{\text{12 months average market capitalization}} \right] \times 100 \leq 5\%$$

4) Non permissible income

Depending on the type of income it is, the study will use the respective benchmarks as stipulated in the business screening stage.

3.5.2 Index construction

This section will only focused on index construction, therefore the study will not look at index governance, policy and maintenance.

3.5.2.1 Index Methodology

There are various methods for index construction, the study will employ market capitalization weighted index formula. Market capitalization weighted index as opposed to price weighted, equally weighted or fundamentally weighted index is simple to understand and construct and also securities are held in proportion to their value in the target market hence the index mirrors the actual market (CFA 2016). A capitalization weighted index is calculated based on the current stock price and market capitalization of each component of the index. Due to the limited number of equities under study, the capitalization weighted index construction approach to be used was capped market capitalization weighted. A capped market capitalization weighted index is one where single index constituents or defined groups of index constituents are confined to a maximum weight and the excess weight is distributed proportionately among the remaining index constituents. (S&P Dow Jones 2015). This will ensure a fair weight distribution among the index constituents and also reduce the effect of companies with large market capitalization on the index.

3.5.2.2 Index information and guidelines

- Index base value – 1000
- Index base date - 02 January 2015
- Index universe – All equities listed on the Nairobi Stock Market, that have passed the shariah compliancy screening test
- Companies owned by a group should not control more than 33% of the total market capitalization.
- Each sector weight will be capped at 33%, while each component stock will be capped at 20%. The excess weight for sector will be equally distributed among the remaining index sectors with less than 33%, while for constituent stocks with weights greater than 20% the

excess weight will be distributed among companies with less than the capped weight. (NSE lotus 2016)

3.5.2.3 Formula for Calculation of Index

Nairobi shariah index was calculated using following formula (S&P Dow Jones 2015):

$$\text{Index level} = \frac{\text{index market value}}{\text{index divisor}}$$

$$\text{Index market value} = \sum_c (P_c * Q_c * \text{w}_c)$$

Where P_c = current price of a stock, Q_c = number of listed ordinary shares and w_c = weight adjusting factor

$$\text{Index divisor} = \frac{\sum_b (P_b * Q_b * W_b)}{\text{base value}}$$

Where P_b = stock price on base date, Q_b = number of listed ordinary shares on the base date and w_b = weight adjusting factor on the base date

4 REFERENCES

- Abdul Rahman, A., Yahya, M. A., & Nasir, H. M. (2010). Islamic norms for stock screening: A comparison between the Kuala Lumpur Stock Exchange Islamic Index and the Dow Jones Islamic Market Index. *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 3 Iss 3 pp. 228 – 240.
- Abduh, M., Sukmana. R. & Omar, A. (2013). *Fundamentals of Islamic Money and Capital Markets*. Somerset, NJ, USA: John Wiley & Sons, 2013.
- Adam, N. L & Abu Bakar, N. (2012). *Shariah screening process in Malaysia*. International Halal Conference. Kuala Lumpur, Malaysia 4-5 September.
- Bacha, I., Obiyathulla, & Mirakhor, A. (2013). *Islamic Capital Markets: A Comparative Approach*. Somerset, NJ, USA: John Wiley & Sons, 2013.
- Bloomberg. *Kenya's Sole Shariah-Compliant Insurer to Expand in Region*. Retrieved from <http://www.bloomberg.com/news/articles/2013-04-17/kenya-s-sole-shariah-compliant-insurer-to-expand-in-region-1>.
- Capital Markets Authority Kenya. (2013). *Capital market master plan 2014-2023*. Retrieved from http://www.cma.or.ke/index.php?view=download&alias=406-issue-no-17-published-october-to-december-2013&category_slug=newsletter&option=com_docman&Itemid=583.
- CFA. (2016). *Security market indices*. (Power point). Retrieved from https://www.cfainstitute.org/learning/products/publications/inv/Documents/investments_chapter_2.pptx.
- Derigs, U. and Marzban, S. (2008). Review and analysis of current shariah compliant equity screening practices. *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 1 No. 4, pp. 285-303.

Dow Jones Indices (2015). *Index Mathematics Methodology*. S&P McGraw hill financial. Retrieved from www.dowjones.com

Ernst & Young. (2014). *World Islamic Banking Competitiveness Report 2013–14: The Transition Begins*. London.

Htay, N. S., Abedeen, S., & Salman, A. (2013). Towards Standardization of Shariah Screening Norms and Practices. *International Journal of Humanities and Social Science, Volume 2 Issue 11, November 2013, PP.23-30*.

Iqbal, M. & Molyneux, Philip, 2005, *Thirty Years of Islamic Banking: History, Performance and Prospects*. Palgrave Macmillan, UK. Pp. 190.

Jamal, J. Hambali, N. & Ali, H. M (2010). *Islamic capital market and Shariah screening in Malaysia*. International Research Symposium in Service Management ISSN 1694-0938. Malaysia.

Hussein, K. A. (2004). Ethical Investment: Empirical Evidence from FTSE Islamic Index. *Islamic Economic Studies, Vol. 12, No. 1, August 2004*.

Khatkhatay, M. H., & Nisar, S. (2007). *A Critical Review of Dow Jones Shariah Screening Norms*. International Conference on Islamic Capital Markets. Jakarta, Indonesia.

Lagarde, C. (2015) *Unlocking the Promise of Islamic Finance*. Islamic Finance Conference, Kuwait City. Retrieved from <http://www.imf.org/external/np/speeches/2015/111115.htm>

Laving, B. A. *Islamic finance in Kenya*. Islamic finance news. Retrieved from <http://www.islamicfinancenews.com/contents/supplements/2013/kenya/kenya.pdf>.

Mahlknecht, M. & Hassan, K. (2011) *Islamic Capital Markets: Products and Strategies*. Hoboken, NJ, USA: John Wiley & Sons, 2011.

Ndung'u, N. (2011). *Islamic Finance: A Paradigm Shift in Africa*. 3rd Gulf African Bank Annual East & Central Africa Islamic Finance Conference. Nairobi. Kenya March 28.

<http://www.bis.org/review/r110414c.pdf>

NSE Lotus Islamic Index. (2016). *Lotus capital halal investment*. Nigeria, Lagos. Retrieved from www.lotuscapitallimited.com

Otieno, G. O. (2013). *Challenges in the adoption of takaful Insurance in Kenya*. School of Business: University of Nairobi. Retrieved from

http://erepository.uonbi.ac.ke/bitstream/handle/11295/59624/Ochieng_Challenges%20in%20the%20adoption%20of%20Takaful%20Insurance%20in%20Kenya.pdf?sequence=1

Sheikh, S. (2009). *Factors that led to the emergence of Islamic banking in Kenya and the regulatory challenges facing the industry*. School of Business: University of Nairobi. Retrieved from http://erepository.uonbi.ac.ke:8080/bitstream/handle/11295/13498/Salah_Factors%20that%20led%20to%20the%20emergence%20of%20Islamic%20banking%20in%20Kenya.pdf?sequence=4&isAllowed=y.

The Kenya vision 2030. (2007). *The Kenya vision 2030*. Government of the Republic of Kenya.

<http://www.vision2030.go.ke/index.php/library/>