İSLAM EKONOMİSİ VE FİNANSI DERGİSİ, 2015/1; **65-105**

Incorporating Socially Responsible Principles in Islamic Investments: An Empirical Analysis

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ABSTRACT

The paper examines the compatibility of United Nations (UN) Global Compact's principles with Islam and proposes a new "social screen" to be added in addition to existing Shari'a complaint equity screening methodologies. The paper then empirically analyzes the performance of SRI portfolios with portfolios that are both socially responsible and Shari'a compliant using risk adjusted return tools and Carhart 4 factor model. The paper further investigates the performance of seven Islamic indices with equivalent socially responsible indices. It was found that the Islamic principles not only endorse the principles of UN Global Compact but also enforce them and make an individual accountable. The empirical results show that SRI and Shari'a compliant combined portfolio performs better than the SRI portfolio, and hence Sharia compliant investments bring value to the SRI portfolio. The paper also found that Shari'a compliant portfolio generates better returns than the SRI portfolio in a bearish market while the latter performs better in a bullish market. It is concluded that during market downturn Shari'a compliant portfolios can be used to limit risk.

Keywords: Shari'a Compliant, Socially Responsible, Ethics, Islamic Finance and Investment

Sosyal Sorumluluk İlkelerinin İslami Yatırımlarla İlişkilendirilmesi: Deneysel Analiz

ÖZ

Bu araştırma Birleşmiş Milletler (BM) Küresel İlkeler Sözleşmesi ilkelerinin İslam ile uyumluluğunu incelemekte ve mevcut İslam Hukuku inceleme metodolojilerine ilave olarak yeni bir "toplumsal ekran" eklenmesini önermektedir. Araştırma, SRI portföyleri ile hem sosyal sorumlu hem de İslam Hukukuna uyumlu portföylerin performansını, riske göre ayarlanmış kazanç araçları ve Carhart 4 faktör modelini kullanarak, deneysel olarak analiz etmektedir. Bu araştırma ayrıca yedi İslam indeksi ile eşdeğer sosyal sorumlu indekslerin performansını incelemektedir. Çalışmanın sonucunda, İslami ilkelerin BM Küresel İlkeler Sözleşmesi ilkelerini desteklediği, aynı zamanda da onları mecbur ettiği ve bireyi sorumlu tuttuğu bulunmuştur. Uygulama sonuçları SRI ve İslam Hukukuna uyumlu birleşik portföyün SRI portföyünden daha iyi performans gösterdiğini ve dolayısıyla İslam Hukukuna uyumlu yatırımların SRI portföyüne değer kattığını göstermiştir. Aynı zamanda bu araştırma İslam Hukukuna uyumlu portföyün ayı piyasasında SRI portföyünden daha iyi gelir getirmesine karşın ikincisinin boğa piyasasında daha iyi performans sağladığı bulunmuştur. İslam Hukukuna uyumlu portföylerin piyasanın gerileme döneminde riskleri sınırlamak için kullanılabilir olduğu sonucuna varılmıştır.

Anahtar Kelimeler: İslam Hukuku Uyumlu, Sosyal Sorumlu, İslami Finans ve Yatırım

INTRODUCTION

The Shari'a compliant equity investments are socially responsible (Elgari, 2002), as it forbids investments in unethical industries (alcohol, gambling, and pornography). However, there is no direct focus on social responsibility. i.e. Shari'a compliant investments do not invest in companies committed to socially responsible businesses to support environment, human rights, employee rights (Forte and Migilietta, 2007). Both Shari'a compliant investments and Socially Responsible Investments (SRI) started as faith-based, however the latter evolved to include more social and environmental issues (positive screening), away from core religious issues and the former applies exclusion criteria (negative screening) only and has thus remained just faith-based investments.

The growing concerns and awareness on social and environmental risks are compelling regulatory authorities and investors to integrate wider social issues into the investment decisions. These are vital for hedging risks and ensuring long terms sustainable growth (Arabesque, 2014). Ahmed (2009) indicates that Vedanta Resources, a diversified metals and mining company from India listed on the London Stock Exchange and part of Norway Government Pension Fund, FTSE 100 index and the FTSE Shariah Index UK were found to be seriously violating ethical practices i.e. violations of human rights and environment. As a result the Norway Government Pension Fund divested the stock from the fund, yet it remained part of FTSE Shariah Index UK. The Church of England also disinvested from Vedanta Resources in the year 2010 after the practices of the company were found not at par with ethical standards[1]. BinMahfouz and Ahmed (2014) applause Ahmed (2009) on raising a very vital question i.e. how can a company that violates serious environmental and human rights be part of a Shari'a portfolio. Is it not against Shari'a to disrespect human rights and cause damage to the environment? Are the investors devoid of any further responsibilities if a company has an Islamic corporate structure and is not involved in any prohibited business activities according to Shari'a? Ahmed (2009) suggests that it is vital for Islamic finance to expand and include SRI principles in its investment guidelines. Like SRI investment which started with negative screening and moved to include wider ethical issues; positive screening, Islamic finance should follow similar steps and move Islamic investments from achieving Shari'a compliancy to

[1] https://www.churchofengland.org/media-centre/news/2010/02/pr2010.aspx

achieving objectives of Shari'a. Arabesque (2014) states that environmental and social principles rooted in SRI funds are also in line with the tenets of Islam, however they are not applied to Shari'a compliant funds. This contradicts Islamic finance's own ontological assessment of itself as being socially responsible, based on fairness, justice and equity. There is a need to develop the existing screening methodologies to account for more social issues than otherwise promoted by Shari'a and where institutions that are striving to give back to the society are supported, in addition to being Shari'a compliant. The development of such practices (both Shari'a compliant and SRI) has moved the objectives away from just profit maximising to achieving other social and religious objectives. Hence, investment managers of such investments strive to achieve the social and religious objectives of the investors, in addition to the risk and return profiles.[2]

The author's research is an attempt to propose improvements to current Shari'a screening methodologies by incorporating socially responsible principles. The research proposes the Shari'a screening methodologies to incorporate four broad principles promoted by the United Nations (UN) – Global Compact to be followed, in addition to Shari'a screening, this will ensure that socially irresponsible stock are not selected in a Shari'a compliant portfolio. The paper first discusses the compatibility of UN-Global Compact with Islamic principles and then empirically compares the performance of Islamic and socially responsible portfolios to investigate the value addition of integration of Islamic and SRI portfolios. Further the paper compares the performance of Dow Jones Sustainable indices with Dow Jones Islamic Markets indices to highlight the performance difference of the two sets of indices.

The rest of the paper is organized as follows: In section 2, we provide a literature review and analysis of UN Global Compact with Shari'a Principles. Section 3 discusses the data and methodology while section 4 analyzes the empirical results. Section 5 provides a summary and conclusion of the paper.

[2] There have been many empirical studies on the performance and characteristics of Shari'a compliant, SRI and conventional funds, however they offer conflicting results (Elfakhani and Hassan, 2005; Renneboog, Ter Horst, & Zhang, 2008; Hoepner et al, 2009; Capelle-Blancard and Monjon, 2011; Kreander, 2005; Statman (2000); Forte and Migilietta, 2011).

LITERATURE REVIEW

Background of Shari’a Compliant and Socially Responsible Equity Investments

Islamic equity investments began with the pronouncement of Fatwa by Justice Mufti Muhammad Taqi Usmani (Pakistan), Professor Saleh Tug (Turkey) and Sheikh Mohammad Al Tayyeb Al Najar (Egypt) in July 1987. Further, The International Fiqh Academy (IFA) also issued a ruling in 1992 that approved stock of companies that do not engage in activities that violate Shari'a principles[3] was regarded as a major achievement (Wilson, 2004). Islamic equity funds account for 54% of the total funds industry; valued at $60bn. Islamic equity investments are required to go through a Shari'a screening (ISRA, 2012) process, which ensures that the business[4], mode and capital structure[5] of the business are in line with Shari'a.

Islamic equity investment appears to align with ideal Islamic financial principles[6], as stated by Khatkhatay and Nisar (2006) that in order to consider an investment proposal compliant with Shari'a guidelines, it needs to be assessed from two angles, i.e. nature of the transaction and nature of contracting parties. Equity finance, as is usually argued, would make it difficult to accumulate ‘unearned’ fixed income, and generally promote equity and justice in society (Khan, 2010). Such assessment can be achieved by considering whether there is any Gharar, Riba etc. involved in the structuring of the transactions and the nature of the business.

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[3] This was a significant ruling for the development and realization of Islamic mutual funds industry, since it allows Muslim investors to participate in equity markets.

[4] Business screening: It avoids companies involved in production, distribution of alcohol, tobacco, pork, pornography, involved in gambling, interest based banks and financial institutions

[5] Financial screening tends to avoid heavily dependent on interest base transactions. Capture interest income and interest expense

[6] In case of equities the structuring of equities transaction itself appears unobjectionable as equities do not have any assured benefits on the holder. Further the shareholder can even lose all of his capital/investment

The guidelines underpinning the Shari'a assessment of stocks are provided by the Shari'a bodies (e.g., Shari'a advisory council of SC Malaysia and AAOIFI in Bahrain) and other Shari'a boards of financial institutions which have delved into Islamic legal principles and precedents to determine the boundaries of investments.

On the other hand, Socially Responsible Investment (SRI) like Shari'a compliant investments has its roots in religion and started as faith based investments[7]. The first responsible investment fund in US "The Pioneer" fund was launched in 1928 and was driven by the motive of excluding investments in companies involved in alcohol and tobacco i.e. avoiding sin stocks (Eurosif 2013). This fund is in existence to date[8] and utilizes sin screens for its investments. However, the earliest reference is found in the Quakers-movement and their avoidance of investing in companies involved in weapons and slavery business in the 17th century (Colle and York, 2008). Further, the initial investment policies were organized around avoiding companies involved in sinful acts like tobacco, alcohol and gambling. The first SRI mutual fund was the Pax World Fund founded in 1971 by Luther Tyson and Jack Corbett who actively worked on variety of projects for the United Methodist Church (Pax World, 2007) created Pac World Fund for investors opposed to the Vietnam War, the fund avoided investing in weapon contractors. In the 1980s-90s there was an increased focus on environmental issues including the establishment of United Nations World Commission on Environment and Development in 1983 and the Earth Summit in 1992 (Eurosif, 2013). On the other side a number of SRI indices have also been launched with first launched in 1990. During the 1980s the SRI funds evolved to include the negative screening i.e. avoiding businesses involved in prohibited activities, however with the development in the industry the screening criteria has since expanded to include positive screening, i.e. investing in companies involved

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[7] Ethical investing has its origins in Jewish, Christian and Islamic traditions. Judaism has teachings on how to use money (See, Maimonides Mishneh Torah, Laws of Gifts to the Poor 10:7). In medieval Christian times, there were ethical restrictions on loans and investments based on Old Testament (See Exous 22:25). Further the Catholic Church imposed a universal prohibition on interest in 1139, which was relaxed in 19th century. In England The Act Against Usury which prohibited excessive interest on loans from 1571 to 1624. During reign of Henry VIII (1491 -1547) usury was defined as a loan with interest rate higher than 10%.

[8] under slightly different name

in promoting socially responsible ventures etc. According to Global Islamic Asset Management Report 2014, the SRI industry is worth more than $33 trillion globally.

Why Sharia Compliant Equity Investments Should Incorporate Socially Responsible Investment Principles

To understand Shari'a one needs to understand its objectives that allow flexibility and dynamism. According to Imam Al Ghazali "The objective of Shari'a is to promote well-being of all mankind, which lies in safeguarding their faith (din), their human self (nafs), their intellect (aql) their posterity (nasl) and their wealth (mal). He further states that whatever ensures safeguarding of these five serves the public interest (maslaha) and is desirable. Dusuki and Abdullah (2009), states Al Shatibi's view who follows the taxonomy of Imam Ghazali and classifies maslahah in three categories: daruriyyat (essentials)[9], hajiyyat (complementary)[10] and tahsiniyat (embellishments)[11].

The Islamic economic and finance system is perceived as a socio-economic finance system that requires incorporating ethicality and morality in economic activities, with its ethical values such as fairness, justice and equity (Chapra, 1985 and Obaidullah, 2005). Islam's concept of SRI encompasses a broader meaning, being God-conscience by which corporations and individuals assume their role as a vicegerent on earth. Dusuki and Abdullah (2009) state that corporations should do "good" to the society irrespective of the financial outcome. They also state that when Al Satibi's three classifications of Maslaha are placed in a pyramid structure, the most important is the daruriyat by which essential needs are provided. These include safety of employees, welfare, life, environment, intellect and posterity. At the second level hardships are removed and at the highest level corporations are expected to pay back to the society in terms of social good and that which may lead to perfection of public life. As a whole the maslaha pyramid

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[9] These are self-interest upon which people depend on such as faith, life, intellect, posterity and wealth, i.e. elements that are absolutely necessary for the proper functioning of person's religious and other affairs.

[10] These are those interests which if avoided lead to hardships but not to total disruption.

[11] These are those interest which if realised will lead to refinement and perfection in the customs and conduct of people at all levels (better ethics within society)

implies the need for organizations to engage in and manage their businesses and CSR activities according to priorities evolved from deep understanding of Shari'a. Financial investment theory suggests that the goal of investor is to maximize return or utility after considering the risks (Ho, et al.., 2013).

To summarize, the concept of CSR is not new to Islam as it is deeply inscribed in the Shari'a (Kamali, 1998). Hence, any corporation that follows Shari'a principles should naturally incorporate SRI principles as well. Dusuki and Abdullah (2009) believe that Islamic corporations should endeavor to be at the forefront in the business world in promoting CSR practices.

It is believed that for the Islamic finance industry to succeed there has to be more collaboration between the Islamic finance and SRI industry. The Holy Quran instructs "*Eat and drink from the provision of Allah, and do not commit abuse on the earth, spreading corruption"* (Quran 2:60). It is important for the Islamic fund management industry to include factors related to environment, labor and human rights and other SRI issues in their decision making process for Islamic investments. Abdullah (2007) stated that increasing the proportion of the SRI can have two significant benefits for the Islamic funds industry. First, it will increase the portfolio of Shari'a compliant investments by attracting investments from ethical sources. Second, it will allow SRI investors to diversify their portfolio into Islamic investments which tend to be less risky than their conventional counterparts.

Hassan (2008) analyzed the current screening methodologies of SRI and Islamic funds, he concluded that "Islamic equity funds should arguably put stress on the positive criteria for selecting companies rather than simply listing prohibitions". Islamic banking and finance (IBF) involves wider ethical and moral issues than just interest free transactions. This makes it more efficient than conventional banking and at the same time promote greater economic equity and justice (Khan, 2010). This will assist the Islamic fund management industry to move away from being just religious based screening to more objective based screening. Further, there is not much difference between SRI and Islamic investment as the end objective of both is similar, investing or financing activities that are beneficial to humanity and society (European Central Bank, 2013). DeLorenzo (2002), a Shari'a scholar states that Islamic investors can only invest in businesses that are "responsible" and "committed" to good causes, principles that both Islamic investing and SRI share.

Ahmed (2009) stated that in terms of excluding investments both SRI and Islamic screening have some overlap. Some of the common businesses excluded under Islamic and SRI screens are alcohol, tobacco, gambling, weapons & adult entertainment. He further states the need to build on the existing Shari'a investments principles by integrating social, environmental and responsible businesses. Forte and Miglietta (2011) conducted a study on the similarities and differences between Islamic and SRI screening methodologies. They are of the view that the most important goal for the Islamic investors is the compliance of eligible assets to Shari'a, followed by performance whereas for the SRI funds, importance is on sustainability and the environment before financial performance. Table 1 is a brief comparison between SRI and Islamic equity investments.

Table 1. Islamic vs SRI Investments

Investment Aim	Financial return while conforming to the rules of Shari'a	Financial return while pursuing social, environmental motives and sometimes faith based
Investment Guidelines	Shari'a Principles	Socially responsible investment policy
Asset Universe	Limited to Shari'a compliant stocks only, stock of financial institutions and unethical are avoided	Stocks that pass the ethical criteria
Advisory Board	Shari'a advisory board that screens, monitors the Shari'a compliancy of the stocks – sometimes this function is outsourced to an advisory company	An ethical board, committee that screens and monitors the compliancy of ethical stocks
Financial Ratios	To control a company's exposure to interest income and interest expense different ratios are analysed	There are no financial ratios applied that determine a stock fit for SRI index
Business Ratios	Yes, Only invest in companies involved in Shari'a compliant businesses	Yes, Only involved in business that are involved in socially responsible businesses
Faith Based Rules	Yes	Yes/No
Screens Based on ESG criteria	No	Yes

Source: *Authors own*

An Examination of the UN Global Compact Principles with The Islamic Principles

As this research proposes the existing Shari'a screening methodologies to incorporate SRI principles it is important that a set pattern is created and followed with clear guidelines. The UN Global Compact is proposed to be followed by the investment management companies in order to ensure that socially irresponsible stocks are not selected as part of Shari'a compliant portfolios. In this regard, the following section analyses UN Global Compact principles in the light of Islam.

The UN Global Compact is a strategic policy initiative introduced in July 2000, for businesses that are committed to aligning their operations and strategies on a voluntary basis with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. Of these ten, two principles on Human Rights, four principles on Labour Rights, three principles on Environment, and one principle on Corruption. The UN Global Compact follows two main objectives: bring a set of universal principles of responsible business into main stream activities of companies and to act as a catalyst for initiatives in support of wider UN goals in the area of social and environmental development (Williams and Zinkin, 2009). It is not a regulatory initiative and also not offer any form of measurement on participants but rely heavily on public accountability, transparency and self- interest of those involved in the initiative of pursuing the objectives. These UN Global Compact Principles are examined to ensure that they are supported by Shari'a principles. It is proposed that Islamic screening methodologies should include a third screen "Social screen" where stocks should screen stocks based on these 10 UN Global Compact principles. This will ensure that socially irresponsible stocks are not selected in a Shari'a compliant portfolio.

Human Rights

The concept of human rights is part of the UN Global Compact and covers a wide range of concepts relating to dignity, freedom and protection of individual. Under the UN human right Principles, Businesses should support and respect the protection of internationally proclaimed human rights (Principle 1). Businesses should make sure they are not complicit in human rights abuse (Principle 2). In the light of Islam, human rights can be examined by focusing on (I) equality, (II) life and security, (III) personal freedom, and (IV) Economic, Social and Cultural Freedom.

I) Equality: In Islam the rights given by the kings or parliaments can be revoked while the rights given by Allah (SBWT) must be accepted and enforced. The Prophet Muhammad (PBUH) in his last sermon while highlighting the importance of equality in Islam stated that *"an Arab has no superiority over a non-Arab nor a non-Arab has any superiority over an Arab; also a white has no superiority over black nor a black has any superiority over white except by piety and good action".* This means that the right to equal treatment is protected under Islam regardless of colour, race, nationality and religion. The foundation of equality are in the structure of Islam and has base in the principles laid in the Holy Quran. All men are created by one and same eternal God and all mankind belong to human race and share common parentage of Adam and Eve. Similarly, in Islam women are also treated equally, as practiced at the time of Prophet (PBUH) where women were free to enter the councils of the Ummah, speak freely to the Prophet (PBUH), and fight for their rights. Similarly at the time of Prophet (PBUH)) women were trialled equally, when they were involved in wrongdoings. Allah (SBWT) treats women equally, he *mentions "Their Lord responded to them: I never fail to reward any worker among you for any work you do, be you male or female, you are equal to one another"* (Quran, 3:195).

II) Life and Security: In Islam the first and basic right is the right to live and respect human life. The Holy Quran clearly stated that "Whosoever kills a human being without (any reason like) man slaughter, or corruption on earth it is as though he had killed all mankind" (Quran, 5:32). Islam further recognises the right to individual liberty and forbids enslaving free men.

III) Personal Freedom: Prophet (PBUH) disliked people who enslaved free men and asked his companions to free slaves as much as possible. He (PBUH) himself freed 63 slaves and a number of companions followed this by freeing many more. Another important issue under human rights is justice, the right to justice is considered so important in Islam that Muslims are asked to choose justice over protecting own families. Further Allah (SBWT) mentions *"Oh you who believe! Stand out firmly for justice, as witnesses to Allāh, even though it be against yourselves, or your parents, or your kin, be the rich or poor, Allāh is a better protector to both (than you). So follow not your lusts, lest you may avoid justice, and if you distort your witnesses or refuse to give it, verily, Allāh is ever* *well acquainted with what you do."(Surah Nisa: 135.)*. On the same topic Prophet Muhammad (PBUH) is reported to have said "*If one of you sees something wrong, let him change it with his hand; if he cannot, then with his tongue; if he cannot, then with his heart and this is the weakest faith*".

IV) Economic, Social and Cultural Freedom: Further commitment to justice and brotherhood demands that Muslim society takes care of the basic need of the society. Islam believes in the basic right to living standard and promotes this through Zakat (obligatory charity), which makes it clear that Muslims are expected to provide a safety net to others (Rice, 1999).

Islamic governments opposed the implementation of the UDHR in the Muslim majority countries and as a result two sets of documents which are said to be more relevant to Muslim cultures and religious practices were prepared in 1981 known as Universal Islamic Declaration of Human Rights (UIDHR) – prepared by non-government Islamic council and Cairo Declaration of Human Rights in Islam (CDHRI) prepared by Organisation of Islamic Conference and adopted by members state in 1990. Despite the criticism against (UDHR) there are more similarities than differences among the UDHR, UIDHR and CDHRI (Masud, 2007). The human rights issue of UDHR and UN Global Compact is based on equality, life and security, personal freedom and economic, social and cultural freedom, all of which are very much common in UIDHR and CDHRI. However CDHRI goes a step ahead and recognises equal treatment of women.

Labour Rights

The UN Global Compact for labour rights is based on freedom of association, elimination of forced labour, abolition of child labour and discrimination in respect of environment and occupation. These principles are taken from International Labour Organisation (ILO) for Declaration on Fundamental Principles and Rights at Work issued in 1998. The UN Labour Principles include, Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining (Principle 3), Elimination of all forms of forced and compulsory labour (Principle 4), Effective abolition of child labour (Principle 5) and Elimination of discrimination in respect of employment and occupation (Principle 6). Human rights in the light of Islam will be examined by focusing on I) Forced Labour, II) Child Labour, III) Fair Dealings, IV) Dignity of Workers and V) Right to Social Security.

I) Forced Labour: Elimination of all forms of forced or compulsory labour is prohibited and that wages should be mutually agreed upon. It is a condition of hiring workers that they are clearly specified what is required from them in terms of work and they are informed of their wage. "*It is reported by Abu Saeed Khudri that the Holy Prophet had forbidden to employ any labourer or worker without first fixing his wages".* The worker must be paid immediately. The Prophet Muhammad (PBUH) commanded that the labourer should be paid his wages before the sweat of his arms has dried, i.e. immediate payment. Further holding back of wages is also disallowed, *"And withhold not things justly due to men, nor do evil in the land, working mischief"* (Quran, 26:183). It is the duty of the employers to place reasonable work load on the employees, working condition and environment must be safe for them to freely work. It is further narrated by The Prophet said "Allah says I will be against three persons on the Day of Resurrection: One who makes covenant in My Name, but he proves treacherous. One who sells a free person (as a slave) and eats the price. And one who employs a labourer and gets the work done by him and does not pay the wages" (Bukhari, Book 18, Hadith 77).

II) Child Labour: Child labour initiates an unjust society and according to Quranic text Children are a gift. Islamic law ensures children are brought up in the best environment possible where they learn about the norms and customs of the world. The Holy Quran states "to Allah belongs the dominion of the heavens and the earth; He creates what he wills. He gives to whom He wills female and He gives to whom He wills males (Quran, 42:49).

IV) Fair Dealings: Islamic teachings with regards to labour rights are very clear. It is recommended that workers should be treated fairly and justly. There should not be any discriminatory work places practices. Islam like other social system allow hierarchy in management with the condition that those at the lower end are not oppressed by the ones above them (Zinkin and Williams, 2009). It is clearly mentioned in the Holy Quran "*He has raised you in ranks, some above others: that He may try you in the gifts that He has given you"* (Quran, 6:165). In another place it is mentioned "*it is We (God) who portion their livelihood in the life of this world: and We raise some of them in ranks so that some may command* *work of others. But the Mercy of your Lord is better than the (wealth) which they amass"* (Quran, 43:32).

V) Dignity of workers: Islam honours work and the worker and enjoins Muslims not only to treat the worker justly but also generously. He is not only to be paid his earned wages promptly, but is also entitled to adequate rest and leisure (Ipgrave, 2009).

VI) Right to social security: Every person has the right to food, shelter, clothing, education and medical care consistent with the resources of the community[12] (discussed in IV).

Environment

The UN Global Compact environment standards are based on precautionary approach to environment challenges, promotion of environmental responsibility and development of environmental friendly challenges. The environmental challenges include damage to ecosystem, aquatic eco system, land degradation, impact of chemical use, waste production etc. The UN Principles include, Businesses should support a precautionary approach to environmental challenges (Principle, 7), Undertake initiatives to promote greater environmental responsibility (Principle, 8), and encourage the development and diffusion of environmentally friendly technologies (Principle, 9). Islam also supports these principles. Islam recognises the importance of protecting the environment as man is steward (khalifah or guardian) of natural resources, as vicegerent of Allah on earth and he is responsible for looking after it. While the resources in the world are for mankind, he is asked to be responsible of not destroying it so that the people yet to come can benefit in a similar manner to you.

> *"The seven heavens and the earth, and all beings therein, declare His glory: there is not a thing but celebrates His praise; and yet ye understand not how they declare His glory! Verily He is Oft-Forbear, Most Forgiving" (Quran, 17:44). Further "and do not cause corruption in the earth, when it has been in order" (Quran, 26:151-152)*[13].

[12] Universal Islamic Declaration of Human Rights (September 1981). [Online] Available from http://www.alhewar.com/ISLAMDECL.html [Accessed on June 6, 2014]

[13] ibid

Rice (2009), quoted United Nations Development Report (UNDP) Human Development report (1994) which stated that the lifestyle of rich nations should change, the north has 20% of world's population while it consumes 80% of the income and 70% of the energy, 75% of the metal and 85% of the wood. This means there has been excess consumption in some parts of the world. The Holy Quran discourages this *"eat and drink: But waste not by excess, for Allah loveth not the wasters"* (Quran, 7:31). The Prophet (PBUH) practiced this as he created special zones where natural resources were to be left untouched. In addition, Islam encourages moderation and discourages waste[14].

Corruption

The UN Global Compact states that businesses should work against all forms of corruption and bribery (Principle 10). In Islam, corruption is strictly not allowed, as corruption is an indicator of unequal treatment and justice is at the heart of Islam. In this context the "*Prophet (PBUH) cursed the one who accepts a bribe, the one who offers a bribe and the one who arranges it"*. With regards to transparency, Islam requires clear written contracts for all business transactions and it is clearly prohibited to sell a faulty item without making it clear to the buyer. Hence, Muslims are expected to be fair in their dealings with one another.

It is clear from the above that UN Global Principles are supported by Islamic principles. Williams and Zinkin (2009) analysed the compatibility of these principles with Islam and found that the Islamic principles not only fully comply with UN Global Compact but goes a step ahead in ways which can assist in better understanding of Islam in the West. In particular Islam exceeds the minimum requirement of Global Compact in a number of important ways. First, Islam appears to be wider in the development of human capital and transparency requirement in business transactions, something promoted in Islamic finance. Second Islam clearly differentiates between Halal and Haram (permissible and non-permissible). Islam can enforce a principle under Shari'a as it becomes compulsory and bring forth accountability of individual for unethical behaviour on the Day of Judgment.

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[14] http://www.ecomena.org/tag/sunnah/

As at present Islamic finance industry lacks such body promoting Islamic SRI values, it is proposed that Islamic asset managers should use norm-based[15] screening strategy and follow UN Global Compact, so they have a set of principles and clear guidelines to follow for the SRI screening. This will ensure that the Shari'a compliant stocks are not violating Shari'a indirectly by investing in Shari'a irresponsible stocks. These voluntary principles should be introduced by Shari'a screening methodologies as a separate screen known as "social screen" or "SRI screen". For a stock to be Shari'a compliant it has to pass through both the Shari'a screening comprised of business and finance screening, and the newly introduced SRI screen based on these four areas of UN Global Compact. The companies will be free to include more CSR/SRI initiatives under its strategy like contributing to the local community, charity and donations as part of its overall CSR activity.

Performance of Islamic and Socially Responsible Investments

There have been many studies conducted comparing the performance of the conventional, Islamic and SRI funds and yet no consensual conclusion can be made on comparative performance. Elfakhani and Hassan (2005) and Hussein (2005) using risk-adjusted measures conclude "that performance of Islamic mutual funds is no different to the performance of conventional funds". Shamsher et al. (2000), compared the performance of an Islamic unit trust and a conventional unit trust in Malaysia. The findings suggested "that Islamic funds performed better than the conventional funds during bearish markets while conventional funds showed a better performance during a bullish market". This clearly shows that Islamic funds can be used to hedge the risk in an economic downturn. Abdelsalam, et al. (2013) carried out a comprehensive analysis of the performance of both SRI and Islamic mutual funds using partial frontier methods and quantile regression technique. The average efficiency of SRI funds was found to be higher than the Islamic funds, these differences in performance were not significant when further analysis was carried out. The research established that SRI funds' performance is superior for inefficient funds and for the best mutual funds Islamic

[15] As defined by EUROSIF, Norm-based screening is screening of investments according to their compliance with international standards and norms, i.e. in this case it will be UN Global Compact

funds perform better than SRI. Wilson (1995) carried out a research in which he found that by placing restrictions on investment choices, ethical investors can reduce the opportunities available to them. However, fund managers still argue that it is possible to invest in SRI funds and still receive a higher return than non-SRI funds as it ultimately depends on the stock picking ability of the fund manager.

Hoepner et al. (2009) carried out a research and analyzed the financial performance and investment style of Islamic equity funds from 20 countries from five different regions. The study phase is based on the performance of 262 equity funds over two decades and to date, is the largest study on Islamic equity funds. The study revealed that "in western markets, Islamic equity funds underperform their equity market benchmark on average. In contrast, Islamic funds from countries with significant Muslim population neither underperform nor over perform their benchmarks". This underperformance of Islamic funds in the west was due to low Muslim population in these countries. Nonetheless, the awareness of Islamic products is increasing now especially after the market downturn in which Islamic products were not affected as significantly as conventional and socially irresponsible investments. It can be argued from this that if SRI investments tap into Shari'a compliant investments, it can benefit in Muslim majority countries.

With regards to SRI investments, Biehl, Hoepner and Wilson (2011) studied the UK SRI funds market and concluded that portfolios with low social ratings do not perform less than the market when compared with portfolios with higher social ratings, meaning social norms that are closer to the best practices in socially responsible investments. A research carried out on the French SRI Funds by Capelle-Blancard and Monjon (2011) complemented the research of Barnett and Solomon (2006). Their study provided further evidence that the screening process affects the overall performance of the funds. Further, the study also mentions that most of the papers on SRI do not find significant differences in risk adjusted returns between SRI and conventional funds.

Research comparing the performance of SRI funds with conventional funds include Mallin (1995), Kreander (2005) and Statman (2000) who conclude that SRI funds perform better than conventional funds. Conversely, other research by like Geczy (2005), Gregory (1997), Haveman and Webster (1999) concluded that SRI funds tend to have lower returns when compared with their conventional counter parts. Further, Dravenstott and Chieffe (2007) carried out a research comparing the performance of SRI and socially irresponsible companies and also found that stocks of socially irresponsible companies perform better than SRI investments.

METHODOLOGY AND DATA

Methodology

The research follows the methodology used by Bauer et al. (2005), Hassan and Girard (2011) and Ho, et al. (2013) for the performance analysis. The risk adjusted measures used are Sharpe ratio proposed by Sharpe (1966), Treynor ratio by Treynor (1965), Jensen alpha by Jensen (1968) and the Capital Asset Pricing Model (CAPM) where the expected return of the portfolio depends on the covariance of the security with market portfolio (Ho, et al. 2013). The empirical part is divided into two parts. In the first empirical part, the performance of the SRI portfolio against the SRI and Shari'a compliant portfolios is assessed using risk adjusted return measures.

In addition CAPM single factor model (unconditional CAPM) is used to analyse the performance using the following model:

$$R_t - R_{ft} = \alpha_i + \beta_{i,1,0} \left(R_{mt} - R_{ft} \right) + \varepsilon_{it} \quad (1)$$

R_t = Average Return of the portfolio, R_{ft} = Risk-free rate, R_{mt} = Return of the market (S&P 500). β_p is Beta of portfolio, α is the alpha of the portfolio and ε_{it} is the random error of the portfolio.

In the second part, the performance analysis of Shari'a compliant indices with socially responsible indices is carried using Carhart 4-factor model in addition to risk adjusted return measures and CAPM single factor model (as model 1).

One of the problems of Jensen Alpha is that larger importance is only given to alpha as a measure of investment attractiveness without understanding the extra risk involved in receiving higher return. Further the inefficiency of alpha in analysing a security or fund as part of larger diversified portfolio, hence in this case Treynor ratio is given importance or preference.

In addition, a multi factor asset pricing model approach which is believed to improve CAPM single asset pricing model, (in this regard Fama and French (1993, 1996) 3 factor model has been considered to give better explanation of the overall behaviour. Although Fama and French model mitigates average CAPM error, it lacks in explaining the cross- section variation in momentum -sorted portfolio returns. Hence Carhart (1997) extends Fama and French (1993) model to include a fourth momentum factor from Jagdeesh and Titman (1993).

$$R_{it} - R_{ft} = \alpha_i + \beta_{,1,0} \left(R_{mt} - R_{ft}\right) + \beta_{i,2,0} HML_t + \beta_{i,3,0} SMB_t + \beta_{i,4,0} MOM_t + \varepsilon_{it} \tag{2}$$

R_{it} is return of the portfolio, R_{ft} is tisk free rate, R_{mt} is return of the market (S&P 500). β is beta of the portfolio, SMB_t = difference in return between a small cap portfolio and a large cap portfolio at time t, HML_t = difference in return between a portfolio of high book-to- market stocks and one of low book-to-market stocks at time t, MOM_t = difference in return between a portfolio of past 1 month winners and portfolio of past 12 months losers at time t. The data for SMB, HML and MOM was extracted from Fama and French website.

Data Sample

In the first part of the empirical analysis the performance of MSCI World SRI (MSCI) and DJSI World (DJSI) is compared with their Shari'a compliant portfolios. The portfolio constituents of MSCI and DJSI are obtained from the MSCI and Dow Jones S&P directly. These socially responsible stocks are screened against their respective Shari'a screening methodologies. The MSCI Index provides exposure to organizations with high ESG ratings and avoids organizations not following certain values-based areas. It consists of large and medium cap organizations. The DJSI and other subsets track the performance of 10% of the largest companies in S&P Global Broad Market Index that lead the table in terms of sustainability (economic, social and environmental criteria). It was launched in 1999 and follows best in class strategy where it only selects those organizations whose sustainability criteria is better than others. After the Shari'a screening, the new portfolio for MSCI SRI Shari'a index represents 54% of MSCI while DJSI World Shari'a represent 34% of DJSI. The period under review for this part of the research is January 1999 to December 2013; and has 180 data points.

The second part of the empirical analysis compares the performance of seven Dow Jones Islamic Market family Indices[16] with Dow Jones Sustainability Europe 40 Index (DJSE 40D)[17]. The sample period starts in January 2004 and ends in August 2014 (128 data points for the full period). The period is divided into three sub periods: January 2004 to December 2006 (36 data points; bull period), January 2007 to June 2011[18] (54 data points; bear period) and July 2011 to August 2014 (38 data points, recovery period). Bloomberg daily closing prices and monthly returns are used for the period from January 2004 to August 2014. The MSCI AC World Index is used as the benchmark index, similar to Hassan and Girard (2011), while the US 1 month treasury bill is used as risk free rate and extracted from Kenneth and French Data Library and Bloomberg.

EMPIRICAL ANALYSIS AND RESULTS

The first part of this empirical research quantitatively analyse the value that Shari'a compliant investments bring to a SRI portfolio. In this regard, this part of the research is divided into two part. In part 1 two indices, MSCI World SRI Index and Dow Jones Sustainability Index (DJSI) World Index (both socially responsible) are selected and Shari'a screening review is carried out. In total there

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[16] Dow Jones Islamic Asian Pacific index (DJIAP), Dow Jones Islamic Emerging Markets Index (DJIEM), Dow Jones Islamic Markets Europe (DJIEU), Dow Jones Islamic Market Europe Titan 25 Index (DJEU25), Dow Jones Islamic Market World Index (DJIM), Dow Jones Islamic Market World –Ex US Index (DJIXUS) and Dow Jones Islamic Markets US Index (IMUS).

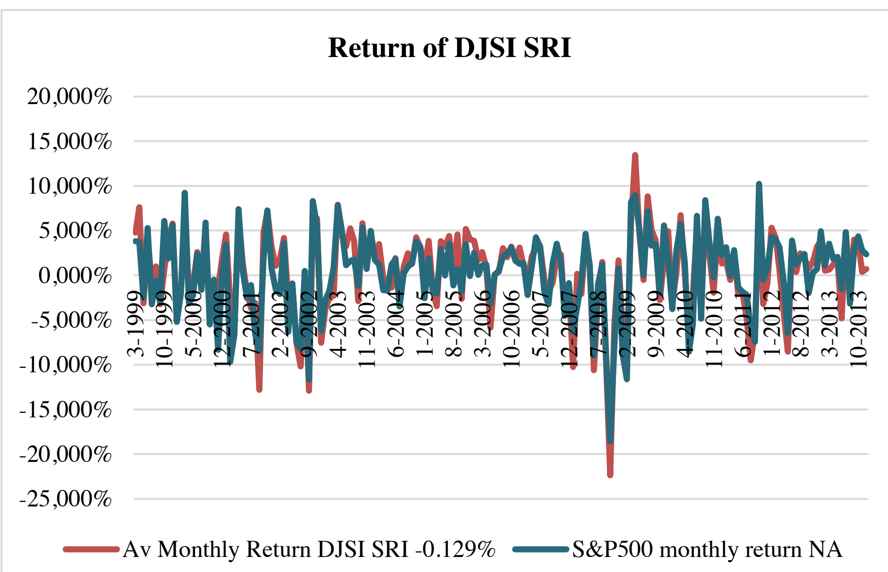
[17] Dow Jones Sustainability Asia/Pacific Index (P1SG1), Dow Jones Sustainability Asia/Pacific 40 Price Index (P140), Dow Jones Sustainability US 40 Price Index (US140), Dow Jones Sustainability World Composite Index (W1SG1), Dow Jones Sustainability World Index Ex all (excl: Alcohol, Tobacco, Gambling, Armaments & Firearms) (W1SUS) and Dow Jones Sustainability World Index ex US (W280).

[18] Our study follows the definition of financial crisis of Jawadi et al (2013) Conventional and Islamic stock price performance: An empirical investigation, *International Economics,* 137 (2014) 73-87.

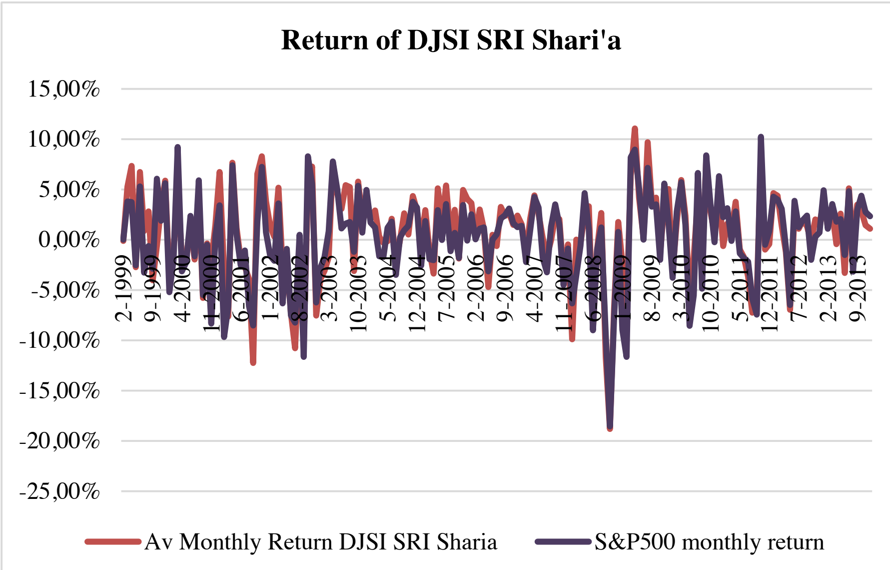
are 408 stocks in MSCI World SRI Index and 335 stocks in the DJSI World Index. After the Shari'a screening the total Shari'a compliant and socially responsible stocks remained are 222 from MSCI and 114 for DJSI. For the purpose of this research, the Shari'a compliant portfolios are known as MSCI SRI Shari'a and DJSI SRI Shari'a.

Further Graph 1, 2, 3 and 4 compare the average monthly returns of the portfolios with S&P 500, it highlights that the portfolios are highly correlated with the benchmark index. In addition, when we compare the monthly performance of DJSI SRI is compared with DJSI SRI Shari'a in October 2008 the SRI portfolio gives a return of -23 percent while the DJSI SRI Shari'a portfolio gives a return of -19 percent; 4 percent better than the SRI portfolio. At the same time the MSCI SRI portfolio gives a return of -24 percent while the MSCI SRI Shari'a gives a 2 percent better return than the conventional portfolio. This represents that during the market downturn such as the recent financial crisis, the Shari'a compliant portfolios perform better than the conventional portfolio.

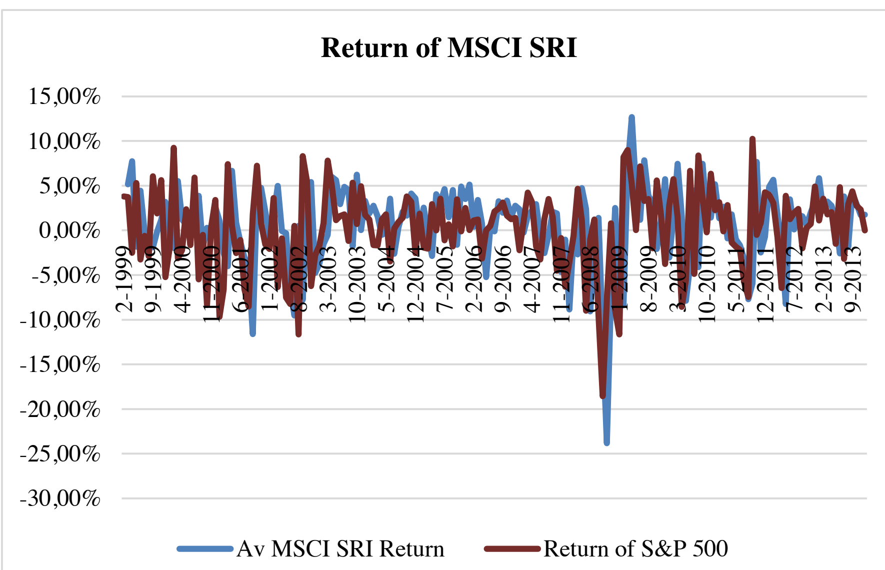
Graph 1. Average monthly return of DJSI SRI compared with S&P 500



Graph 2. Average monthly return of DJSI SRI Shari'a compared with S&P 500



Graph 3. Average monthly return of MSCI SRI compared with S&P 500



Graph 4. Average monthly return of MSCI SRI Shari'a compared with S&P 500

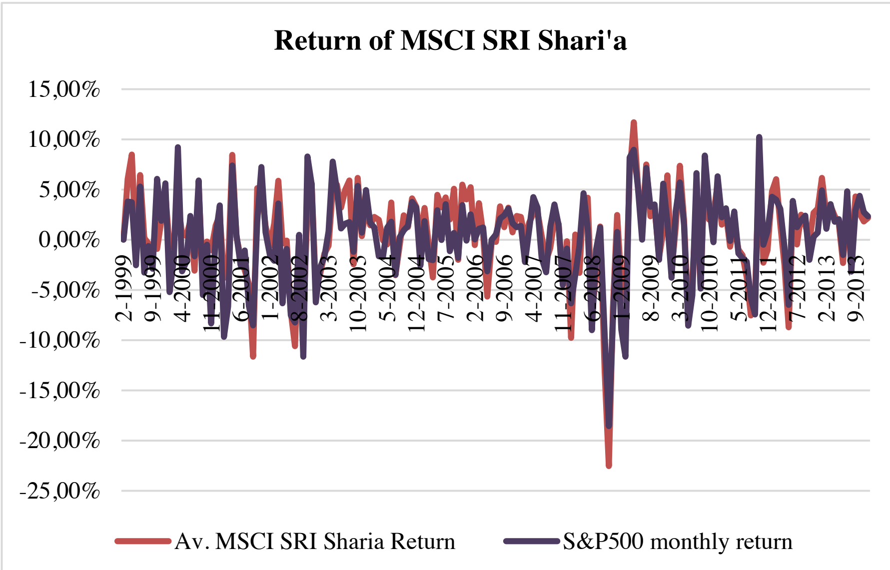


Table 2 shows that the mean annualised return of the four portfolios has been higher than the benchmark index S&P 500 used. However, among the four portfolios the Shari'a compliant portfolios MSCI SRI Shari'a and DJSI Shari'a have higher average annualised return than their conventional counterparts. Similarly the table also highlights the average annual beta of Shari'a compliant portfolio's is lower (1.00 and 0.51) compared to their conventional counterparts (1.06 and 0.90), highlighting lower volatility for Shari'a compliant portfolios.

Based on the risk adjusted performance measurement tools, the results are mixed for Sharpe ratios. DJSI Shari'a has a Sharpe ratio of 1.72 higher than DJSI 1.45, while the Sharpe ratio of MSCI SRI is 1.76 higher than MSCI Shari'a 1.72. This means that the inclusion of Shari'a compliant stocks in one of the portfolio has added some value to the performance of the portfolio, i.e. improving the value of Sharpe ratio while in the other case it has not, however the difference in the portfolio of MSCI Shari'a and MSCI is not significant.

SRI Shari'a portfolios have outperformed the conventional SRI indices for both MSCI and DJSI on the basis of Treynor and Jensen measurements. This means that the Shari'a compliant portfolios have outperformed conventional SRI portfolio, although the performance difference is not significant. The performance results may be affected by the turbulent times during the last decade where the world has faced dot com crisis, financial crisis and the political crisis (i.e. Middle East crises). These results are shared by some of the previous studies in the area. Some of the previous studies have divided the period into for example, dot come crisis and the financial crisis period so that performance of the portfolios in the bullish and bearish markets can be analysed.

Table 2. Descriptive Statistics and Risk Adjusted Returns Measurement

Variables	MSCI	MSCI SRI Shari'a	DJSI	DJSI SRI Shari'a
No of Stocks	408	222	335	114
Annual Return				
Mean (S&P 16.23%)	19.84%	21.01%	18.47%	21.08%
Median	18.52%	18.28%	13.60%	17.60%
Stdev	0.55	0.55	0.58	0.57
Annualised Standard Deviation				
Mean	10.03%	11.00%	11.17%	11.16%
Median	8.51%	9.46%	9.29%	0.74%
Stdev	0.08	0.07	0.07	0.00
Risk Free Rate				
Mean	2.15%	2.15%	2.15%	2.15%
Median	1.58%	1.58%	1.58%	1.58%
Stdev	0.02	0.02	0.02	0.02
Beta				
Mean	1.06	1.00	0.90	0.51
Median	1.02	0.99	0.88	0.59
Stdev	0.35	0.34	0.32	0.62
Sharpe				
Mean	1.76	1.72	1.45	1.72
Median	1.68	1.46	1.37	1.51
Standard Deviation	5.89	6.13	5.92	5.91
Treynor				
Mean	0.17	0.19	0.16	0.37
Median	0.17	0.16	0.11	0.09
Standard Deviation	0.81	5.78	0.80	34.62
Jensen				
Mean	0.03	0.05	0.03	0.12
Median	-0.85	0.11	0.03	0.13
Standard Deviation	0.70	0.52	0.41	0.55

Further CAPM one factor model was carried out in table 3 which resulted in Alpha's of all the four portfolios to be positive, however the result has been mixed compared to risk adjusted measures. Here the alpha of DJSI SRI Portfolio which has R square value of 0.58 is lower than the DJSI Shari'a portfolio with 0.31 R square value. i.e., the one underlying factor explains 31% of the portfolio returns. The alpha of MSCI SRI Shari'a is lower than the MSCI SRI portfolio. However, the adjusted R square for MSCI SRI is very low while for MSCI SRI Shari'a, it is 0.55. Due to R square it is challenging to reach a conclusion for these MSCI SRI portfolios.

Table 3. CAPM Single Factor Model

Portfolios	Alpha	Beta	Adj R Square
DJSI SRI	0.07	0.9	0.58
DJSI SRI Sharia	0.1	0.52	0.31
MSCI SRI Sharia	0.11	0.99	0.55
MSCI SRI	0.17	1.06	0.57

Based on the results of risk adjusted returns of the portfolios it is concluded that at large the portfolio that follows socially responsible and Shari'a principles has a positive impact on the returns of equity investment portfolios.

The second empirical part focuses on the performance comparison between Shari'a compliant and socially responsible indices. Table 4 shows each index's descriptive statistics and performance measures for the overall period in Part A (2004-2014), the first sub-period in Part B (2004-2006), the second sub-period (2007-June 2011) and the third sub-period (July 2011-August 2014).

During the overall period the Islamic indices return on average 0.60 percent per month (7.4 percent per annum) as compared to 0.45 percent per month (5.4 percent per annum) for conventional (socially responsible) counterparts. The Islamic stocks are less risky than conventional with 1.04% per month standard deviation compared to 1.13%. Further the Islamic indices also have a lower beta than the socially responsible indices, highlighting lower risk with the Islamic stocks. The cumulative return of Islamic indices is higher compared to non-Islamic indices.

Overall the risk adjusted measures based on Sharpe, Treynor and Jensen show mixed results. Sharpe ratio for both indices is negative, however the Islamic indices have a lower negative Sharpe ratio indicating better performance between the two family of indices. The Treynor ratio is higher for socially responsible indices while based on Jensen the Islamic indices outperform their non-Islamic peers.

During the first period, Islamic indices average monthly return is lower than the conventional counterparts, 1.09 percent compared to 1.17 percent for conventional indices. However, the cumulative return of Islamic indices, is slightly higher (39.06 percent) than conventional indices (38.76 percent). The standard deviation for both indices for this period is same while the Islamic indices have a higher volatility represented by the beta. The risk-adjusted return measures are lower for all Sharpe, Treynor and Jensen. This higher return during bull market for conventional indices is in line with previous researches in the area as the screening process of Islamic indices shrinks the investible universe for Islamic portfolios.

During the second period; i.e. bear market the average monthly return of the Islamic indices is higher than the conventional counterparts. The average annual return is 4.2 percent compared to 0.24 percent for conventional indices for the same period. The cumulative return for this market downturn period is 19.02 percent compared to negative cumulative return of -1.36 percent. The standard deviation for this period is lower for Islamic indices while surprisingly the beta for conventional indices is lower than Islamic for the same period. The risk-adjusted measures further strengthens the superior performance results from prior researches, i.e. Islamic stocks tends to perform better during market downturn. Hence the SRI portfolios can diversify into Shari'a compliant investments in the bearish market and generate higher returns.

The last part regarded as recovery period is post financial crises period, the conventional indices have performed better both on a monthly basis and cumulatively. The annual average return has been 5.88 percent for Islamic indices compared to 6 percent for conventional portfolios. The beta of Islamic indices has been lower 1.03 than the conventional indices 1.07. Based on the Sharpe measure the Islamic indices have performed better, this may be due to the lower standard deviation of Islamic indices during this period. Mixed results are achieved for Treynor and Jensen measures.

The above results are in line with the previous researches in the area where Islamic indices or portfolios perform better during bearish market while conventional portfolios perform better during bull market. However, results based on such measures can be misleading as they do not fully capture the restrictions imposed on portfolio formation by Islamic law (Hassan and Girard, 2011). Hence, more sophisticated approaches used by (Bauer et al. 2005) are used to better assess the performance of the portfolios.

Results from Multifactor tests for the overall period are shown in Table 5. The results are broken down into four parts as above. Part A of table 5 shows slight increase in average R-squared when Carhart four factor model is used for the Islamic indices for the overall period. However, this improvement in R-square is very small. Similarly, the improvement with the conventional indices is also very small. Using CAPM 1 factor model and Carhart 4 factor model when controlling for market risk, size, book to market and momentum, the Islamic indices on average monthly perform better than conventional counterparts. Further the beta is lower for Islamic indices.

Part B of Table 5 focuses on the period between 2004 and 2006, the pre-crisis period the Islamic indices have outperformed the conventional indices. Based on the two unconditional models used, the R-square slightly improves for Islamic indices when using 4 factor model compared to CAPM, while there is not much change for conventional indices.

Part C focuses on the financial crisis period where the Islamic indices outperform the conventional counterpart and the R-squared value also improves for the Islamic indices. This unconditional multifactor results better explain the improved performance with positive alphas for all the Islamic indices compared to conventional indices. The results are in line with the risk adjusted measure where the Islamic indices perform better during market downturn compared to a bullish market. The last part of the research assesses the post crisis performance period for Islamic and conventional indices. The R-squared value does not change, and the average monthly return for Unconditional Carhart is better than Unconditional CAPM. The performance of conventional indices is better than the Islamic indices for this period.

The mixed results for Islamic indices during the overall study period or during different bull and bear markets are in line with the previous researches in the area, i.e. Islamic investor does not suffer from low return by following his or her religious restrictions in stock investing (Hassan and Girrard 2011). Similarly SRI investors can diversify their portfolio by investing in Shari'a compliant investments especially during the market downturn. At the same time SRI investment in Shari'a compliant investments can increase the asset under management of Shari'a compliant asset management that has witnessed a slow growth after the financial crisis.

SUMMARY AND CONCLUSIONS

This study analyzed the UN Global Compact principles with the Islamic principles and found that Islamic principles not only fully comply but endorse, support and actively promote them. It is proposed through this research that Shari'a screening methodologies should include a third screen called "Social screen" in addition to existing Shari'a screens comprised of business and financial screening. This will assist in screening companies investing socially irresponsible companies or violating SRI principles otherwise supported by Shari'a.

The study in the quantitative part of the research analyzed how Shari'a compliant investments bring value to SRI portfolio. The performance of DJSI World and MSCI SRI portfolios against their Shari'a compliant versions was analyzed. Using risk adjusted returns, the Sharpe, Treynor ratios and Jensen alpha are higher for Shari'a compliant and SRI portfolio compared to only SRI portfolio. This leads to the conclusion that integration of SRI and Shari'a compliant principles has a positive impact on the returns of the equity investments. While the CAPM one factor model presented mixed results where DJSI SRI Shari'a outperformed the SRI only portfolio while MSCI SRI performed better than MSCI SRI Shari'a portfolio. The second part of the quantitative research compared the performance of SRI indices with the equivalent Shari'a compliant indices. The research finds no convincing performance difference between Islamic and SRI for the overall period; 2004 to August 2014. However, the SRI portfolios outperform the Islamic portfolios during bull market 2004 to 2006 while the Islamic portfolios outperform the socially responsible portfolios during bearish market 2007 to June 2011. The mixed results between the socially responsible indices and Islamic indices during different period indicate that both set of portfolios bring value to each other's, i.e. overall similar risk and reward benefits exists for both type of indices. Hence the SRI portfolios can incorporate Shari'a compliant stocks during market downturn and benefit from diversification.

The findings in this study, though not definitive and mixed, have implications on the growth of Islamic asset management industry. In addition, the integration of SRI and Shari'a compliant portfolio will expand the investible universe for both SRI and Shari'a compliant portfolios as they provide natural cross over to Shari'a compliant products, SRI is a growing industry and has grown 500% since 1995[19] and will assist in broadening the reach of Islamic funds beyond local markets.

REFERENCES

AAOIFI (2010). *Shari'a Standards for Islamic Financial Institutions*. Bahrain.

Abdelsalam, O., Fethi, M.D., Matallin, J.C., & Tortosa-Ausina E. (2013). On the Comparative Performance of Socially Responsible and Islamic Mutual Funds. *Journal of Economic Behavior & Organisation,* 3175.

Abdullah, F., Hassan, T., & Mohamad, S. (2000). Investigation of Performance of Malaysian Islamic Unit Trust Funds: Comparison with Conventional Unit Trust Funds. *Journal of Managerial Finance,* 3(2), 142-153.

Ahmed, I. (2009). *Incorporating Socially Responsible Investing in Islamic Equity Investments*. MSc Cass Business School.

Ainley, M., Mashayekhi, A., Hicks, R., Rahman, A., & Ravalia, A. (2007). *Islamic Finance in the UK: Regulation and Challenges*. London.

Akram, M., Rafique, M., & Alam, H.M. (2011). Prospects of Islamic Banking: Reflection from Pakistan. *Australian Journal of Business and Management Research,* 1.

Barnett, M.L, & Salomon, R.M. (2006). Beyond Dichotomy: The Curvilinear Relationship between Social Responsibility and Financial Performance. *Strategic Management Journal,* 27(11), 1101-1122.

Bashir, B.A. (1983). Portfolio Management of Islamic Banks 'Certainty Model'. *Journal of Banking and Finance,* 339-354.

Baumol, W.J. (1991). Toward a Newer Economics: The Future Lies Ahead!. *Economic Journal, Royal Economic Society,* 101(404), 1-8.

Beeun, R. I., & Badawi, J.A. (2005). Balancing Ethical Responsibility among Multiple Organizational Stakeholders: The Islamic Perspective. *Journal of Business Ethics,* 60, 131-145.

Biehl, C.F., Dumke, M., Hoepner, A.G.F., & Wilson, J.O.S. (2010). SRI Funds: Does More Social Mean Less Financial Performance?

[19] Global Islamic Asset Management Report (2014) by Thomson Reuters and Lipper

BOE (2013). *Financial System*. Retrieved October 5, 2013 from http://www.bankofengland.co.uk/financialstability/Pages/financialsystem/default.aspx

Bollen, N. P. B. (2005). Short-term Persistence in Mutual Fund Performance. *Review of Financial Studies, 18,* 569–597.

Brewer, J., & Hunter, A. (1989). *Multimethod Research: A Synthesis of Styles*. Newbury Park: Sage.

Bryman, A., & Bell, E. (2011). *Business Research Methods*. United Kingdom: Oxford University Press.

Capelle-Blancard, G., & Monjon, S. (2011). The Performance of Socially Responsible Funds, Does the Screening Process Matter?. *CEPII Working Papers* 2011-12.

CFA (2012). *Equity and Fixed Income*. USA: Pearson.

Dar Al Istithmar (2009). A Universal Platform for Shari'a Compliant Equity Screening. *Oxford Islamic Finance*.

Dravenstott, J., & Chieffe, N. (2007). *Screening for Corporate Social Responsibility*. Ohio University, Athens.

Delorenzo, Y. (2000). *Shariah Supervision of Islamic Mutual Funds*. In Proceedings of the Fourth Harvard University Forum on Islamic Finance, Harvard University.

Derwall, J., Günster, N., Bauer, R., & Koedijk, K. (2004). The Eco-Efficiency Premium Puzzle. *Financial Analyst Journal,* 61(2), 51–63.

Dergis, U., & Marzban, S. (2008). Review and Analysis of Current Shariah-Compliant Equity Screening Practices. *International Journal of Islamic and Middle Eastern Finance and Management,* 1(4), 285-303.

Dergis, U., & Marzban, S. (2009). New Strategies and a New Paradigm for Shariah-Compliant Portfolio Optimization. *Journal of Banking & Finance*, Elsevier.

Dudley, L. (1998). Islamic Banks Aim for the Mainstream. *Euromoney,* 349, 113-116.

ECB (2013). Islamic Finance in Europe, *Occasional Paper Series No.146*.

Elfakhai, S., & Hassan, M.K. (2005). Performance of Islamic Mutual Funds. *Economic Research Forum, 12th Annual Conference,* 1-33.

Elgari, M. (1994). Towards and Islamic Stock Market. *New Horizon* 32, 4-7.

Elton, J.E., Gruber, M.J., Brown, S.J., & Goetzmann, W.N. (2010). *Modern Portfolio Theory and Investment Analysis*. UK: John Wiley & Sons.

Eurosif (2008). *European SRI Study 2010*. Retrieved August 17, 2013 from www.eurosif.org

Eurosif (2012). *European SRI Study 2012*. Retrieved August 17, 2013 from www.eurosif.org

Fabozzi, F.J. & Modigliani, F. (2009). *Capital Markets, Institutions and Instruments*. New Jersey, Pearson.

Forte, G., & Miglietta, F. (2007). *Islamic Mutual Funds as Faith-Based Funds in a Socially Responsible Context*. Bocconi University.

Forte, G., & Miglietta, F. (2011). A Comparison of Socially Responsible and Islamic Equity Investments. *Journal of Money, Investment and banking,* 21.

Friedman, M. (1970). *The Social Responsibility of Business is to Increase Its Profits*. Retrieved June 12, 2013 from http://www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html

Gay, G.R. & Klassen, J.A. (2005). Retirement Investment, Fiduciary Obligations and Socially Responsible Investing. *Journal of Deferred Compensation,* 34-40.

GIFR (2013). *Global Islamic Finance Report*. London: Edbiz Consulting.

Grais, W., & Pellegrini, M. (2006). Corporate Governance and Shari'a Compliance. *World Bank Research Report*.

Hart, C. (2011). *Doing a Literature Review*. London: Sage.

Hasan, Z. (2007). *Comments on Mohsin S. Khan and Abbas Mirakhor, the Financial System and Monetary Policy in an Islamic Economy* (International Islamic University of Malaysia working paper No. 3183). Malaysia.

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

Hausmann, R., Hwang, J., & Rodrick, D. (2005). What You Export Matters. *Working Paper, Centre for International Development at Harvard University*.

Hawken, P. (2004). Socially Responsible Investing: How the SRI Industry Has Failed to Respond to People Who Want to Invest with Conscience and What Be Done to Change It. *Natural Capital Institute*.

Ho, S.F.C., Rahman, N.A.A., Yusuf, N.H.M., & Zaminor (2011). Comparison of Quantitative Shari'ah Compliant Screening Methods, *ISRA International Journal of Islamic Finance,* 3(2).

Hussein, K. (2004). Ethical Investment: Empirical Evidence from FTSE Islamic Index. *Islamic Economic Studies,* 12(1), 21-40.

Islamic Funds and Investment Report. (2010 & 2011). *Achieving Growth in Challenging Times*. Ernst & Young.

IMF (2006). *Overview of the Financial System*. Retrieved August 26, 2013 from http://www.imf.org/external/pubs/ft/fsi/guide/2006/pdf/chp2.pdf

Iqbal, Z. (1997). Islamic Financial Systems. *Finance & Development*.

Iqbal, Z. (1999). Financial Engineering in Islamic Finance. *Harvard University Forum on Islamic Finance,* 229-238.

Jamal, J., Hambali, N., & Hassani, M,A. (2010). Islamic Capital Market and Sharia Screening in Malaysia. *International Research Symposium in Service Management*.

Jensen, M.C. (1968). The Performance of Mutual Funds in the Period 1945-1964. *The Journal of Finance,* 23(2), *389-416*.

Jensen, M.C. (2001). Value Maximization, Stakeholder Theory, and the Corporate Objective Function. *Harvard Business School Press*.

Karim, M.R.A. (2010). Islamic Investment vs Unrestricted Investment: An Unlevel Playing Field?. *Kyoto Bulletin of Islamic Area Studies,* 3-2, 116-142.

KFH Research (2013). *Kuwait Finance House Research*. Kuwait.

Khatkhatay, M.H., & Nisar, S. (2007). Shari'ah Compliant Equity Investments: An Assessment of Current Screening Norms, *Islamic Economic Studies,* 15(1).

Levy, Y., & Ellis, T.J (2006). A Systems Approach to Conduct an Effective Literature Review in Support of Information Systems Research. *Information Science Journal,* 9.

ISRA (2012). *Islamic Financial System: Principles and Operations*. Malaysia: Pearson.

IFSB (2011). Financial Policy and Stability. *Constraints on Growth in Islamic Finance*.

Jaffer, S. (2004*). Islamic asset management: forming the future for Shari'a-compliant investment strategies*. UK: Euromoney Books.

Khan, F. (2010). How 'Islamic' is Islamic Banking?. *Journal of Economic Behavior and Organisation,* 76(2010), 805–820.

Klassen, R.D., & McLaughlin, C.P. (1996). The Impact of Environmental Management on Firm Performance. *Management Science,* 42(8), 1199-1214.

Marzban, S., & Donia, M. (2010). Shariah- Compliant Equity Investments, Framework, Trends and Crisis. *Harvard University Forum*.

Naughton, S., & Naughton, T. (2000). Religion, Ethics and Stock Trading: The Case of an Islamic Equities Market, *Journal of Business Ethics,* 145-159.

Obaidullah, M. (2005). *Islamic Financial Services*. Islamic Economics Research Centre, King Abdulaziz University, Jeddah, Saudi Arabia.

Rachocka, J. (2006). *Socially Responsible Investment in Europe*. Department of Consumption Economics, Poznan University of Economics.

Renneboog, L., Horst, T.J., & Zhang, C. (2008). Socially Responsible Investments: Institutional Aspects, Performance, and Investor Behaviour. *Journal of Banking and Finance*. 32, 1723-1742.

Renneboog, L., Horst, T.J., & Zhang, C. (2008). The Price of Ethics and Stakeholder Governance: The Performance of Socially Responsible Mutual Funds. *Journal of Corporate Finance,* 14(3), 302-322.

Sengupta, B., & Cognizant (2012). Sharia Stock Screening: A Fund Manager's Conundrum. *Cognizant 20-20 Insights*.

Shleifer, A. (2004). Does Competition Destroy Ethical Behavior?. *American Economic Review, American Economic Association*, 94(2), 414-418.

Siddiqi, M.N. (2004). Riba, Bank Interest and the Rationale of Its Prohibition. *Visiting Scholars Research Series No.2, Islamic Research Training Institute, Islamic Development Bank*.

Sinclair, A.J., Sims, L., & Spaling, H. (2009). Community-Based Approaches to Strategic Environmental Assessment: Lessons from Costa Rica. *Environmental Impact Assessment Review,* 29(3), 147-156.

S&P Dow Jones Indices (2012). *Methodology: Dow Jones Islamic market GCC*.

Sparkes, R. (2002). *Socially Responsible Investment: A Global Revolution*. UK: John Wiley & Sons.

Stenstrom, H.C, & Thorell, J.J. (2007). *Evaluating the Performance of Socially Responsible Investment Funds: A Holding Data Analysis*. Stockholm School of Economics.

Stone, B.K., Guerard, J.B., Gultekin, M. N., & Adams, G. (2001). Socially Responsible Investment Screening: Strong Empirical Evidence of No Significant cost for actively managed Value-Focused Portfolios.

Strauss, A., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks, CA: Sage.

Usmani, T. (2002). *An Introduction to Islamic Finance*. Arab and Islamic Law Series, Brill.

Webster, J., & Watson, R.T. (2002). Analysing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly,* 26(2), 13-23.

Wilson, R. (1997). Islamic Finance and Ethical Investment. *International Journal of Social Economics,* 24(11), 1324-1342.

Wilson, R. (2004). Screening Criteria for Islamic Equity Funds, Islamic Asset Management: Forming the Future for Shari'a-Compliant Investment Strategies. In S. Jaffer (Ed.), *Euromoney Institutional Investor*. PLC, London.

York, J.G., & De Colle, S. (2008). Why Wine is not Glue? The Unresolved Problem of Negative Screening in Socially Responsible Investing. *Journal of Business Ethics, 85*(1), 83-95.

Zaher, T.S., & Hassan, K.M. (2001). A Comparative Literature Survey of Islamic Finance and Banking. *Financial Markets, Institutions and Instruments,* 10(4), 155-199.

Zhang, C., Horst, J., & Renneboog, L. (2007). The Prices of Ethics: Evidence from Socially Responsible Mutual Funds. *ECGI Working Papers Series in Finance*.

Zuriyati, Z.A., Yusoff, M., & Azrae, A.N. (2009). Separate Legal Entity under Syariah Law and Its Application on Islamic Banking in Malaysia. *International Journal of Banking and Finance,* 6(2).

Table 4. Descriptive Statistics and Performance Measures

2004-2014	Mean	Std dev	Cum return	Beta	Sharpe	Treynor	Jensen
DJIAP- DJIM	0.54%	1.05%	69.26%	1.01	-0.24	0.36	0.003
DJIEM-DJIM	0.74%	1.03%	94.10%	1.21	0.19	-0.32	0.004
DJIEU-DJIM	0.60%	1.21%	76.60%	1.07	-0.35	0.01	0.001
DJIM-DJIM	0.61%	0.84%	78.22%	0.94	-0.58	0.01	-0.001
DJIEU25- DJIM	0.48%	1.20%	61.38%	0.98	-0.52	0.62	-0.00078
DJIXUS-DJIM	0.58%	0.96%	78.69%	1.07	-0.41	-0.63	-0.0007
IMUS-DJIM	0.67%	1.01%	85.94%	0.822	-0.27	-0.1	-0.006
DJSE 40D	0.31%	1.28%	40.13%	1.17	-0.65	-0.02	-0.003
P1SG1	0.46%	1.21%	58.40%	0.98	-0.36	-0.01	0.01
P140	0.50%	1.24%	35.40%	0.93	0.01	-0.27	0.01
US140	0.44%	1.05%	46.92%	0.85	0.01	0.16	0.00
W1SG1	0.43%	0.98%	55.65%	1.04	-0.81	6.96	-0.18
W1SUS	0.43%	0.98%	55.20%	1.04	-0.80	-0.13	0.00
W280	0.60%	1.14%	64.05%	1.14	-1.37	0.10	0.01
Average (Islamic)	**0.60%**	**1.04%**	**77.74%**	**1.01**	**-0.31**	**-0.01**	**0.00**
Average (Conv)	**0.45%**	**1.13%**	**50.82%**	**1.02**	**-0.57**	**0.97**	**-0.02**

Part A: January 2004 to December 2014

Table 4. *Continued*

2004-2006	**Mean**	**Std dev**	**Cumm return**	**Beta**	**Sharpe**	**Treynor**	**Jensen**
DJIAP- DJIM	1.10%	0.91%	39.74%	1.24	-1.8	-0.03	-0.137
DJIEM-DJIM	1.59%	0.81%	57.20%	1.5	-0.76	-0.01	0.01
DJIEU-DJIM	1.22%	0.79%	43.82%	1.05	-2.06	-0.02	0.004
DJIM-DJIM	0.88%	0.53%	31.36%	1.03	-3.84	-0.02	-0.0005
DJIEU25- DJIM	0.98%	0.82%	35.26%	1.08	-2.38	-0.02	0.001
DJIXUS-DJIM	1.26%	0.63%	45.32%	1.19	-2.51	0.004	-0.01
IMUS-DJIM	0.63%	0.71%	20.72%	0.81	-3.248	-0.051	-0.016
DJSE 40D	1.29%	0.82%	46.55%	1.1	-1.98	-0.01	0.006
P1SG1	1.38%	1.02%	49.54%	1.2	-1.46	-0.02	0.01
P140	-	-	-	-	-	-	-
US140	0.94%	0.60%	14.15%	0.60	0.02	0.01	-0.002
W1SG1	1.01%	0.60%	36.44%	0.98	-0.03	0.03	0.01
W1SUS	1.00%	0.60%	36.22%	0.98	-3.28	-0.02	0.00
W280	1.38%	0.77%	49.65%	1.20	-7.11	-0.02	0.01
Average (Islamic)	**1.09%**	**0.74%**	**39.06%**	**1.13**	**-2.37**	**-0.02**	**-0.02**
Average (Conv)	**1.17%**	**0.74%**	**38.76%**	**1.01**	**-2.31**	**0.00**	**0.00**

Part B: January 2004 to December 2006

Table 4. *Continued*

2007-2011	**Mean**	**Std dev**	**Cumm return**	**Beta**	**Sharpe**	**Treynor**	**Jensen**
DJIAP- DJIM	0.40%	1.05%	21.46%	1	-0.06	0.86	0.008
DJIEM-DJIM	0.63%	1.33%	34.11%	1.33	0.37	-0.28	0.004
DJIEU-DJIM	0.21%	1.55%	11.13%	1.07	-0.24	0.16	-0.004
DJIM-DJIM	0.37%	1.10%	19.72%	0.93	-0.26	-0.02	-0.0005
DJIEU25- DJIM	0.13%	1.54%	7.03%	0.955	-0.36	1.48	-0.01
DJIXUS-DJIM	0.36%	1.27%	19.42%	1.06	-0.11	-0.52	-0.01
IMUS-DJIM	0.38%	1.29%	20.72%	0.92	0.031	-0.188	-0.01
DJSE 40D	-0.30%	1.61%	-15.97%	1.12	-0.76	-0.01	0.006
P1SG1	-0.04%	1.40%	-5.72%	0.96	-0.62	-0.01	0.01
P140	0.59%	1.52%	19.60%	0.93	0.01	0.14	0.01
US140	-0.04%	1.30%	-2.14%	0.87	1.04	0.48	0.00
W1SG1	-0.06%	1.28%	-3.22%	1.04	-0.74	0.12	0.42
W1SUS	-0.08%	1.28%	-4.13%	1.04	-0.74	-0.33	-0.01
W280	0.04%	1.46%	2.08%	1.10	0.78	0.22	0.01
Average (Islamic)	**0.35%**	**1.30%**	**19.08%**	**1.04**	**-0.09**	**0.21**	**0.00**
Average (Conv)	**0.02%**	**1.41%**	**-1.36%**	**1.01**	**-0.15**	**0.09**	**0.06**

Part C: January 2007 to June 2011

Table 4. *Continued*

2011-2014	Mean	Std dev	Cumm return	Beta	Sharpe	Treynor	Jensen
DJIAP- DJIM	0.21%	0.84%	8.06%	0.97	0.97	0.01	0.003
DJIEM-DJIM	0.07%	0.82%	2.80%	1.1	0.84	-0.67	0.001
DJIEU-DJIM	0.57%	1.11%	21.66%	1.1	1.13	-0.19	0.01
DJIM-DJIM	0.71%	0.75%	26.87%	0.98	2.06	-0.01	-0.14
DJIEU25- DJIM	0.50%	1.09%	19.10%	1.12	1.03	-0.02	0.005
DJIXUS-DJIM	0.24%	0.82%	8.95%	1.12	1.14	-1.39	0.00198
IMUS-DJIM	1.12%	0.89%	42.56%	0.82	2.136	-0.009	0.01
DJSE 40D	0.25%	1.25%	9.55%	1.32	0.77	-0.045	-0.006
P1SG1	0.39%	0.99%	14.98%	0.97	1.01	-0.01	0.01
P140	0.42%	1%	15.80%	0.94	1	-0.63	0.004
US140	0.92%	0.86%	34.91%	0.89	0.02	-0.23	0.01
W1SG1	0.59%	0.91%	22.43%	1.09	1.41	3.79	-1.21
W1SUS	0.61%	0.90%	23.22%	1.08	0.01	0.04	0.01
W280	0.32%	1.04%	12.32%	1.18	1.01	0.04	0.003
Average (Islamic)	**0.49%**	**0.90%**	**18.57%**	**1.03**	**1.33**	**-0.33**	**-0.02**
Average (Conv)	**0.50%**	**0.99%**	**19.03%**	**1.07**	**0.75**	**0.42**	**-0.17**

Part D: July 2011 to August 2014

Table 5. Performance of Islamic indices using unconditional CAPM and Carhart

	Unconditional CAPM			**Unconditional Carhart**					
2004-2014	□□	□	**Adj** R^2	□□	□	**Adj** R^2	**MOM**	**SMB**	**HML**
DJIAP-DJIM	0.000	1.050	0.850	-0.002	1.000	0.850	0.000	0.000	0.001
DJIEM-DJIM	0.004	1.160	0.800	0.001	1.160	0.800	0.001	-0.001	0.001
DJIEU-DJIM	0.001	1.050	0.900	0.000	1.060	0.910	-0.001	0.001	0.001
DJIM-DJIM	0.000	0.950	0.970	0.000	0.940	0.970	0.000	0.000	0.000
DJIEU25- DJIM	-0.001	0.980	0.860	-0.001	0.990	0.860	-0.001	0.001	0.001
DJIXUS-DJIM	0.001	1.050	0.920	-0.001	1.060	0.920	0.000	0.001	0.001
IMUS-DJIM	0.000	0.860	0.900	0.002	0.850	0.900	0.001	0.000	-0.001
DJSE 40D	-0.001	1.120	0.911	0.001	1.130	0.911	-0.001	-0.001	0.001
P1SG1	-0.001	0.980	0.810	-0.002	0.980	0.810	0.000	0.000	0.001
P140	-0.002	0.940	0.890	-0.020	0.980	0.900	0.001	-0.001	0.009
US140	0.000	0.850	0.900	0.003	0.840	0.900	0.000	-0.001	-0.001
W1SG1	-0.001	1.030	0.980	-0.001	1.040	0.980	0.000	0.000	0.001
W1SUS	-0.001	1.030	0.980	-0.001	1.040	0.980	0.000	0.000	0.001
W280	0.001	1.090	0.940	-0.001	1.103	0.940	0.000	0.000	0.001
Average (Islamic)	0.001	1.014	0.886	0.000	1.009	0.887	0.000	0.000	0.000
Average (Conv)	-0.001	1.006	0.916	-0.003	1.016	0.917	0.000	0.000	0.002

Part A: January 2004 to August 2014

Table 5. *Continued*

	Unconditional CAPM			Unconditional Carhart					
2004-2006	□□	□	**Adj** R^2	□□	□	**Adj** R^2	**MOM**	**SMB**	**HML**
DJIAP-DJIM	0.001	1.220	0.730	0.010	1.220	0.730	-0.003	0.000	-0.001
DJIEM-DJIM	0.016	1.580	0.710	0.030	1.560	0.710	-0.004	0.001	-0.004
DJIEU-DJIM	0.002	1.019	0.700	-0.012	1.020	0.740	0.003	0.004	0.001
DJIM-DJIM	-0.001	1.050	0.920	-0.004	1.040	0.930	0.000	0.002	-0.001
DJIEU25- DJIM	-0.002	0.930	0.580	-0.019	0.940	0.630	0.004	0.004	0.002
DJIXUS-DJIM	0.005	1.180	0.830	-0.002	1.180	0.830	0.001	0.003	0.001
IMUS-DJIM	0.000	0.980	0.830	-0.005	0.930	0.790	0.000	0.001	-0.003
DJSE 40D	0.003	1.030	0.850	-0.003	1.016	0.880	0.004	0.000	-0.001
P1SG1	0.007	1.210	0.550	0.020	1.210	0.540	-0.004	-0.003	0.000
P140	-0.001	0.930	0.860	-0.004	0.920	0.860	0.001	0.000	0.000
US140	0.001		0.610	0.005	0.602	0.600	0.002	-0.001	-0.005
W1SG1	-0.001	0.960	0.970	-0.003	0.950	0.960	0.001	0.000	0.000
W1SUS	-0.001	0.950	0.970	-0.003	0.960	0.970	0.001	0.000	0.000
W280	0.006	1.120	0.910	0.005	1.140	0.910	0.002	-0.001	-0.001
Average (Islamic)	0.003	1.137	0.757	0.000	1.127	0.766	0.000	0.002	-0.001
Average (Conv)	0.002	1.033	0.817	0.003	0.971	0.817	0.001	-0.001	-0.001

Part B: January 2004 to December 2006

Table 5. *Continued*

	Unconditional CAPM			Unconditional Carhart					
2007-2011	□□	□	**Adj** R^2	□□	□	**Adj** R^2	**MOM**	**SMB**	**HML**
DJIAP-DJIM	0.004	1.000	0.890	0.000	0.990	0.880	0.000	0.001	0.000
DJIEM-DJIM	0.008	1.160	0.840	0.007	1.150	0.850	0.002	-0.003	-0.001
DJIEU-DJIM	0.002	1.090	0.910	0.006	1.050	0.920	-0.001	-0.002	0.001
DJIM-DJIM	0.002	0.920	0.980	0.004	0.930	0.980	0.000	0.000	0.000
DJIEU25- DJIM	0.000	0.950	0.880	0.004	0.980	0.880	-0.001	-0.001	0.001
DJIXUS-DJIM	0.004	1.040	0.930	0.005	1.050	0.930	0.000	-0.001	0.000
IMUS-DJIM	0.001	0.820	0.930	0.003	0.830	0.940	-0.001	0.002	0.000
DJSE 40D	-0.002	1.090	0.930	0.004	1.120	0.930	0.000	-0.003	0.000
P1SG1	-0.002	0.970	0.910	-0.008	0.950	0.910	0.000	0.001	0.001
P140	0.000	0.930	0.920	-0.004	0.880	0.920	0.002	0.000	-0.002
US140	-0.001	0.870	0.910	0.002	0.860	0.910	0.000	0.000	-0.001
W1SG1	-0.001	1.030	0.980	0.000	1.044	0.980	0.000	-0.001	0.001
W1SUS	-0.001	1.033	0.980	0.000	1.040	0.980	0.000	-0.001	0.000
W280	0.001	1.070	0.960	0.001	1.070	0.950	0.000	-0.001	0.000
Average (Islamic)	0.003	0.997	0.909	0.004	0.997	0.911	0.000	-0.001	0.000
Average (Conv)	-0.001	0.999	0.941	-0.001	0.995	0.940	0.000	-0.001	0.000

Part C: January 2007 to June 2011

Table 5. *Continued*

	Unconditional CAPM			Unconditional Carhart					
2011-2014	□□	□	**Adj** R^2	□□	□	**Adj** R^2	**MOM**	**SMB**	**HML**
DJIAP-DJIM	-0.005	0.980	0.850	-0.005	1.000	0.850	0.001	-0.002	0.000
DJIEM-DJIM	-0.008	1.170	0.840	-0.001	1.190	0.840	0.002	-0.002	0.003
DJIEU-DJIM	-0.003	1.190	0.940	-0.004	1.180	0.940	-0.001	0.001	0.002
DJIM-DJIM	0.000	0.970	0.980	0.000	0.980	0.980	0.001	0.000	-0.001
DJIEU25- DJIM	-0.003	1.120	0.920	-0.003	1.110	0.920	-0.001	0.001	0.001
DJIXUS-DJIM	-0.006	1.120	0.950	-0.008	1.130	0.944	0.000	-0.001	0.002
IMUS-DJIM	0.006	0.840	0.880	0.007	0.840	0.890	0.001	0.001	-0.003
DJSE 40D	-0.006	1.315	0.920	-0.006	1.310	0.920	-0.002	0.001	0.002
P1SG1	-0.003	0.970	0.750	-0.004	0.980	0.733	0.000	-0.001	0.002
P140	-0.003	0.950	0.760	-0.002	0.950	0.740	0.000	0.000	0.000
US140	0.004	0.822	0.900	0.004	0.860	0.822	0.000	0.000	0.000
W1SG1	-0.001	1.080	0.980	-0.002	1.080	0.980	-0.001	0.000	0.002
W1SUS	-0.001	1.080	0.980	-0.002	1.080	0.980	-0.001	0.000	0.001
W280	-0.005	1.230	0.940	-0.008	1.220	0.950	-0.001	0.001	0.003
Average (Islamic)	-0.003	1.056	0.909	-0.002	1.061	0.909	0.000	0.000	0.000
Average (Conv)	-0.002	1.064	0.890	-0.003	1.069	0.875	-0.001	0.000	0.001

Part D: July 2011 to August 2014