Article history:
Received 12 October 2016
Received in revised form 2 January 2017
Accepted 25 January 2017
Published 30 January 2017

Keywords:
Halal
Halal Supply Chain
Halal Logistics
Islamic Economy
Sharia Compliant Construction
Social Concern in Islam
United Arab Emirates

ARTICLE INFO

ABSTRACT
Sharia principles imply a mode of organising society and its various facets, as well as serving as a guide for the conduct of individuals within the institutional and social context. Accountability to be one of the pillars of environmental ethics within Islam. Another of the most important Islamic concepts is the solidarity of Islamic generations. Thus, the broader environmental dimension related to building is a social concern. Building standards need to take into account this concern for preserving sustainability for future societies. Sharia compliant projects should be permissible business. Prophet Muhammad’s (P.B.U.H.) Hadith hallmarks the significance of adhering to Islamic legislation and highlights Halal and permissible business. Therein permissible/Halal business derives its elaboration from Islamic legislation. Sharia principles are often articulated in broad terms. This has created a license to use discretion on how to apply these principles. Owing to the fact there are different schools of Islamic jurisprudence, interpretation of dicta are not always co-terminus. This paper looks into the various components particular to the discussion on Sharia compliant logistics. In order to discuss the hypothetical facets involved in the depiction of Sharia compliant logistics for construction, the discussion is broken down to address the values associated with Sharia compliant business and therefore the implications of Sharia compliant construction logistics leads on from there.

1. Introduction

This research extends the practice of Halal logistics notionally to the construction industry. The inspiration of the paper comes from the flourishing building industry in the United Arab Emirates (UAE) teamed with Dubai’s initiative in the creation of the Dubai Islamic Economy Development Centre (DIEDC). The DIEDC was established in 2013 under the patronage of His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai. The center is the first and only organization of its kind in the world and its primary objective is to accelerate and manage the development of Dubai’s Islamic economy in trade, retail, tourism, aviation, hospitality, financial services and logistics (DIEDC, 2013).
Nagraj (2014) reported the value of planned construction projects in the UAE was $315 billion. For example, in Dubai, (one of the seven emirates that make up the UAE), the construction sector is the fifth largest sector (Sector Economics, 2014). The announcement of Dubai as the host for Expo 2020 saw the total value of the construction sector surge by 9.3% to $42.2bn in 2015. New infrastructure to upgrade the Expo 2020 site has an allocated budget of up to US$4 billion (Ventures, 2014). Hotel and tourism investment for new build to meet the Expo 2020 requirement amounted to $8.1bn (ConstructionWeekOnline.com, 2015).

23.2% of the world’s population is Muslim (Pew Research Center, 2012). For Muslims, the Halal concept plays a vital role in day to day life (Lada et al., 2009). Halal was previously considered in connection to food but it has been explored now in further aspects such as finance, packaging materials, cosmetic products and pharmaceuticals (Wilson & Liu, 2010). Halal is becoming more talked about in business, leading to a differentiated range of products and services (Alserhan, 2010a). This paper asks academics and business practitioners alike the question whether there is a requirement for defining the principles of ‘Halal’ for the construction industry where the final build is intended to be integral to the Islamic economy.

2. Literature review

2.1 What is Halal?

Muhammad et al. (2009) and Rosly (2010) define “Halal” as an Arabic word coming from the Quran that means permitted, allowed, lawful or legal. For a Muslim Halal is usually applied to food, speech, conduct, dress and behaviour. The most important principle with regards to Halal and Haram is the permissibility, or lack of permissibility, of certain things whose right is with Allah alone who is the Creator of the Universe (Al Qaradawi, 2007; Husein, 2014). Allah has the authority to make things lawful or unlawful hence no human being has the right of prohibiting Halal and allowing Haram.

The concept of Halal and Haram keeps the Muslims safe and aware of impurities. Islamic teachings say that Halal is sufficient and Haram is unnecessary for a Muslim. Things that are doubtful and become a cause of a question must be avoided. Halal in the context of food has been explained in the Holy Quran (the book of Allah) and the Sunnah (words of the Prophet Muhammad P.B.U.H), Hussaini (1993). Halal business thus refers to permissible commercial activity (Husein, 2014).

Regenstein et al. (2003) and Kamali (2010) reported that the flesh of swine, blood and intoxicants are products that are mentioned as Haram. Any Halal product that comes in direct contact with these becomes non-Halal. There is a saying of the Prophet, (P.B.U.H.), quoted by Al Qaradawi (2007, p.33): “The Halal is clear and the Haram is clear. Between the two there are doubtful matters concerning which people do not know whether they are Halal or Haram. The one, who avoids them in order to safeguard his religion and his honor, is safe.”

2.2 The Halal industry

Halal is rapidly making its place in the world of business and trade, and is setting a global image for guaranteeing quality and choice of living for Muslims (Lada et al., 2009). Halal industry is not merely limited to the food industry; it has spread to cosmetics, pharmaceuticals, medical devices as well as finance, marketing, logistics and packaging (Wilson & Liu, 2010). And currently due to the increase in
the global Muslim population, the industry has expanded into the hospitality, travel and fashion sectors. A robust supply chain is required for Halal (Lada et al., 2009; Alserhan, 2010b; Wilson & Liu, 2010). Halal is a theory that cannot be only limited to the lifecycle of a product, it goes deeper into the functioning of an organization, the rules and values being implemented by its management, culture and the way of thinking of its employees (Wilson & Liu, 2010; Zakaria & Abdul-Talib, 2010). Wilson and Liu (2010) affirmed that the Halal concept is a sphere where cognitive decision making is affected by the conscious effort to minimize risk based on consumers’ cultural lens and Islam. Moreover Wilson (2014) noted that Halal Certifying Organizations (HCOs) needed to formulate consisted content derived from religious text in order to create an aligned and credible protocol that can be judiciously applied. Furthermore he suggested that, perhaps, it is necessary to formulate different levels of Halal certification: Accordingly consumer value of products may then lead to Halal certification being a marker of Halal products and servitization that are fit for the intended purpose.

Rada and Vandermerwe (1988) reported that servitization has a critical impact on the way managers should ponder, perform, and participate in business in the future. Servitization strategy has gained popularity with policy makers and academics despite the void in empirical evidence (Neely, 2008). Only very recently have Muslim consumers voiced mandates for food and other non-food Halal services, such as pharmaceuticals (Annabi & Wada, 2016). As the demand for Halal pharmaceuticals increases, the need for industries to be Halal certified will also increase. As Halal awareness grows then the concept and demand will expand beyond Halal food to encapsulate other markets (Lada et al., 2009; Annabi & Wada, 2016). It was noted that Halal approaches often rely upon a pull strategy (Annabi & Wada, 2016).

2.3 The Halal supply chain

Ellram et al., (1999) defined the supply chain as a cycle comprising of processes such as financial, information, knowledge and physical flows, taking place to please the requirements of the end customer. Tieman (2011) and Tieman et al. (2012) advocated blending Halal concepts to supply chain management and recommended that the Halal Supply Chain requires Halal adherence from origin to the end. The activities were defined by Omar and Jaafar (2011, p.385) as “warehousing, sourcing, transportation, handling of products, inventory management, procurement and order management which must follow the Sharia Islamic perspectives”.

Tieman (2011) argued that Halal evolves a system of trust, auditing and certification to verify the supply chain authenticity. Halal logistics has been under scrutiny which led to improvements at an operational level based on Halal standards (Abdul et al., 2009; Muhammad et al., 2009; Othman et al.; 2009).

2.4 The Halal and Sharia construction

Laldin (2006) and Zakaria (2008) noted that the Halal industry is only possible as long as it does not oppose Sharia. Due to the increase in global Halal products, Halal logistics has now emerged as a supply chain management concern with studies being conducted by several scholars (Talib & Johan, 2012; Tieman et al., 2012; Annabi & Ahmed, 2015; Annabi & Wada, 2016).

According to Tieman (2013, p.5), “Halal logistics is defined as the process of managing the procurement, movement, storage and handling of material parts, livestock, semi-finished or finished inventory both food and non-food, and related information and documentation flows through the organization and the supply chain in compliance with the general principles of Sharia”. 
Che Man et al. (2007) described Halal logistics as similar to conventional logistics activities, involving the planning, executing and controlling the distribution and storage of Halal certified products from the source to the point of utilization (end user). Halal standardization should be key to combating the fragmentation faced in the Halal industry. For the construction industry, Ying et al. (2014) stated that logistics comprises planning, organizing, coordinating and controlling the flow of materials from the extraction of raw materials till the incorporation into the finished building. The main parts of construction logistics include whole project logistics, supply logistics, and on-site logistics.

2.5 Principles of Sharia compliant supply chain and logistics with emphasis on the construction project

In order to incorporate the Islamic perspective, it is crucial to acknowledge that whilst discussing consumables such foods and drinks, Halal is implicitly understood as that which is suitable for consumption; this is verified by Halal certification and concerns the Halal supply chain integrity (Talib & Johan, 2012; Tieman et al., 2012). Thus within generic discussion on Halal logistics, the emphasis is largely on safeguarding the ‘Halal status’ of the product throughout the supply chain process.

Construction logistics and subsequently its supply chain practice needs further deliberation. The emphasis is not on the ‘Halal status of the supply chain’ of the construction materials, as is the case with consumables being warehouse and transported. Instead the key differentiating factor in construction logistics is the start point, i.e. the project itself. It is significantly important to appreciate that a discussion on Halal logistics within the construction industry would imply that the project under construction is a permissible i.e. a Halal business; to begin with. A simple illustration of the statement would be that Halal logistics for the construction of an establishment that serves alcohol, pork or is involved with gambling activities would be an invalid discussion, in the light of following saying of Prophet Muhammad (P.B.U.H.).

Prophet Muhammad (P.B.U.H.) said, “Allah has cursed the intoxicating drinks, he who squeezes it out (from grapes), he who plants (grapes, etc. for intoxicants), he who drinks it, he who serves it, he who sells it, he who buys it, he who earns from it, he who transports it and he to whom it is transported” (Al-Majlisi, Biharu ‘l-Anwaar, vol. 79, p.126).

The saying explicates two significantly important elements associated to Sharia compliant logistics:

a) It stresses the starting point of understanding the prominence of Halal and Haram, that begins with the product, which in the case of the afore saying was the intoxicating drink, however in the case of construction it would be the project itself.

b) The rest of the saying accentuates the various elements of the value chain or e.g. the one who plants the raw material (source), who squeezes it (production), who serves it (markets), who sells it (sales), who buys it (buyer), who earns from it (value receiver), who transports it (logistics), to whom it is transported (the end-client).

Given that Halal as a terminology is generically associated to eateries, a more relevant expression would be ‘Sharia compliant construction logistics’. Since there is no known Sharia compliant construction logistics definition the following is offered in light of the discussion on the project as a preliminary argument as it subscribes to the implications for Sharia compliant logistics:
“Sharia compliant construction logistics is the process of planning, financing, procuring and building in such a way that the construction project, its material, related information, finances and documentation flows through out the supply chain in compliance with Sharia principles”.

The main function of a Halal supply chain is to separate Halal and Haram. Muslim consumers require assurance of diligence within the process so it becomes crucial that certain norms are strictly followed in the light of Sharia (Bonne & Verbeke, 2008). It is evident that many authors have studied supply chain and logistics of food and drinks and thus taking into account the nature of consumables have therefore focused the discussion around risk of contamination or mixture of Haram (e.g. Bonne & Verbeke, 2008; Annabi & Ahmed, 2015). Construction logistics do not comprise of eatables, and hence do not get affected by the moving and storing facilities of the construction materials involved.

The definition can therefore be refined as:

“Sharia compliant construction logistics is the process of considering Sharia compliant business practices when conducting the resourcing of planning, financing, procuring and building in such a way that the employee resource, construction project, its material, related information, finances and documentation flows throughout the supply chain in accordance with Sharia principles”.

The above definition has inference for Sharia compliant construction logistics because given the difference in the nature of construction material versus consumables the important aspects of Sharia compliant construction logistics have a more detailed focus on staffing, planning, financing, and procurement of the construction material and finances and the resultant documentation flows within the whole supply chain, it circumnavigates concerns regarding physical moving and storing providing the ethos of Islamic business ethics are subscribed to within the resourcing of this servitization. This paper looks into the various components particular to the discussion on Sharia compliant logistics. In order to discuss the facets involved in the depiction of Sharia compliant logistics for construction, the discussion is broken down to address the values associated with Sharia compliant business and therefore the implications of sharia compliant construction logistics leads on from there.

2.6 Islamic business ethics

Ethics (also known as ‘Akhlak’ meaning Islamic moral values) in the Islamic context has many dimensions that are derived from the Quran and Sunnah. These ethics deal with all the aspects of human life; his relationship with Allah and other humans and also the other creatures that surround the universe, and the most important the inner self. Further, Islam considers ethics to be due to Iman (a Muslim belief system), (Muhammad et al., 2013).

Primarily there are two types of Akhlak: ‘good’ and ‘bad’. Islam emphasizes the practice of good Akhlak and avoiding the bad Akhlak (Shaharuddin, 2005). The importance of this can be rightly understood with the saying of the Prophet Muhammad (P.B.U.H.) as recorded by Malik ibn Anas known as Imam Malik (Islamic Scholar): “I have been sent only for the purpose of perfecting the qualities of good akhlak”. And it is mentioned in Quran also as “And indeed, you are of a great moral character” (Quran, 68:4).
2.6.1 Islamic business ethics and construction logistics

The ethical characteristics that have been highlighted by Islam as important for conducting business are Trust, Justice, Sincerity and Truthfulness. And although each of these characteristics are expected to be embedded in the system, in this section a discourse of specific Islamic ethical values of Trust, Justice, Sincerity and Truthfulness are deliberated alongside the elements of Sharia compliant logistics: Resourcing of Planning, Financing, Procuring and Building to offer advice on best practice within each of these areas.

Rahim (2013, p.511) noted that:
“In modern term business ethics can be defined as written and unwritten codes of principles and values that govern decisions and actions within a company. It is also an ethics between employers, employees, businessman and consumers. It applies to all businessman and consumers as well as to all aspects of business conduct. It is also relevant to the conduct of individuals and business organization as a whole.”

2.6.2 Planning

From the Islamic perspective it is at the planning stage where practices need to be justly handled. Justice means equality in treatment. It ensures a balance between the distribution of rights and duties. Islam allows no compromise on this act.

“O you who have believed, be persistently standing firm in justice, witnesses for Allah, even if it be against yourselves or parents and relatives. Whether one is rich or poor, Allah is more worthy of both....” (Qur’an, 4:135).

The Prophet Muhammad (P.B.U.H.) said: “There are seven categories of people whom God will shelter under His shade on the Day when there will be no shade except His. [One is] the just leader.” (Muslim, n.d.)

Trust is characterized as the certainty or belief that the exchange partner has about the trustworthiness, credibility, and compassion of other partners. Credibility means a supply chain partner in a relationship sees that the other party has the required ability to perform the assigned task adequately, while compassion takes place when one partner accepts that the other party has motives and intentions that could profit the relationship (Ganesan, 1994). Narasimhan et al. (2013) discussed the procedural, distributive or interactional justice and their analysis indicates that all three dimensions are important and a high level of one of the justice elements will not compensate for a low level of another.

The Supply Chain Operations Reference Model (SCOR) model emphasizes that planning includes determining business rules to improve and measure supply chain efficiency. These business rules span inventory, transportation, assets, and regulatory compliance, among others. The plan also aligns the supply chain plan with the financial plan of the company (Supply Chain Council, 2004). Planning is of substantial significance and in light of this; it can be mapped that financing, procuring and building fall under the premise of planning.

The requirement for exploring the effects of justice on supply chain relationships in general, comes from the way that effective supply chain management involves members of a supply chain cooperating and seeking strategies that give advantage to the relationship completely and not to the individual parties.
For this to take place, an environment of trust and cooperation is important. These two traits will exist only if the partners have common understanding of procedures included in the management of the relationship and understand the sharing of outcomes to be fair (Jambulingam et al., 2009). It is also at this stage that the fundamental Islamic principle of ‘Trust’ is sown. Manan and Abdullah (2012) commented that trust is the sense of accountability which implies the sense of having to appear before Allah and to account for one's actions. Trust has been emphasized many times in Quran as follows:

“Indeed, Allah commands you to render trusts to whom they are due and when you judge between people to judge with justice. Excellent is that which Allah instructs you. Indeed, Allah is ever Hearing and Seeing.” (Quran, 4:58).

2.6.3 Organizing (Financing)

Islamic finance and monetary governance often proves a challenge due to the scarcity of Sharia-compliant monetary policy instruments. The missing consensus on what is required to meet Islamic standards has led to staff at the International Monetary Fund (IMF) acknowledging that Sharia-compliant monetary policy instruments are still nascent (Kammer et al., 2015). Therefore the following information is offered as a starting point. Tayyebi (2008) defined Islamic finance in simple terms as any finance that is compliant with the principles of Sharia. It is a requirement of the Sharia that prior to investing in a company; an evaluation must be done with regards to its business activities and financial records. This is to determine the source of its primary revenue and how income and expenditures are managed.

1. Interest (Riba: The aspect of an Islamic financial system that is most known is the prohibition of paying or receiving interest. Essentially, any positive, fixed, predetermined rate tied to the maturity and the amount of principal, which is guaranteed irrespective of the performance of the investment, is considered ‘Riba’ and is so prohibited (Berg & Kim, 2014). Allah says in the Quran:

“There are 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….” (Quran, 2: 275).

“Allah destroys interest and gives increase for charities. And Allah does not like every sinning disbeliever.” (Quran, 2: 276).

“The Prophet Muhammad (P.B.U.H) cursed the receiver and the payer of Riba, the one who records it and the two witnesses to the transaction and said: They are all alike [in guilt].” (Muslim, n.d.).

2. Not including Gharar or uncertainty or do you see how this can be incorporated?

Whilst considering the discussion on finance it is worth noting that, Truthfulness as a core ethical value of Islam is seen of significant worth. Islam is based on truth and Allah commands all Muslims to be truthful and straightforward in day to day dealings.

Allah says: “O you who have believed, fear Allah and be with those who are true.” (Quran, 9:119)
Islam strongly condemns falsehood and deceit in any form. The importance of this virtue can be understood by the following hadith. The Prophet Muhammad (P.B.U.H) was asked:

“Can the believer be frugal in his Spending?” - He said: “Yes”.
“Can he be coward?” - He said “Yes”.
“Can he be a liar?” - He said “No”.

In order to foster successful collaboration, organizations should tell the truth and listen to the truth. This will create a sense of understanding throughout the supply chain and lead to positive results (Intrieri, 2013). Moghul and Safar-Aly (2014, p.40) reported financing Islamic projects would “create a strong impetus to utilize a “green sukuk.” Various current initiatives to bring environmental concerns into the realm of finance are underway, and each has its own merits and conceptions of environmental sustainability and social responsibility. Under these broad frameworks, financiers, investors and project sponsors may work together to establish compliance machinery, including standards that define and effect the overall goals of environmental sustainability and social responsibility”.

2.6.4 Organizing (Procuring)

The procurement function plays a very crucial role in the sourcing of Sharia compliant raw materials. The Islamic perspective on the procurement function includes both the soft and hard criteria that are also advocated by Van Weele’s (2002) steps.

1. Determine Specifications: Due to the nature of raw materials used in construction, there are no Halal certification standards for construction raw materials. However Islamic principles do indicate the choice of raw materials that have concerns for the environment, as such a concern is deeply rooted in all fields of Islamic teaching and culture. The notion whilst adhering to Sharia compliance is also evident in Islam’s concern to look after the environment or to protect and enhance it. Excessive consumerism and conspicuous consumption is discouraged in Islam.

2. Selection of Supplier: According to Chen et al. (2006), the selection of supplier is the most important issue in implementing a successful supply chain system and this calls for special attention to be given to the Halal purchasing process. The conventional supplier selection criteria according to Monczka et al. (2005) are usually based on price competitiveness, quality of the product, delivery performance, financial status, technical competency and management abilities. The Islamic perspective would ensure that the selection of suppliers was equitable, that the suppliers themselves enshrined Islamic business ethics and that the process was free from bribery and corruption. This adheres to the principles espoused by researchers who note that following the purchase of Halal products and services, certain Halal aspects of the supplier need to be addressed beyond the physical Halal products and its ingredients that cover both the physical and process of the product (e.g. Al Qaradawi, 2007; Wilson & Liu, 2010).

3. Contract: In the purchasing contract the interest and benefits of both parties need to be protected, making sure there is no interest, uncertainty and gambling (ISRA, 2011). The Islamic viewpoint on scribing the contract is clarified in the following Quranic verses.

“O ye who believe! When ye contract a debt for a fixed term, record it in writing. Let a scribe record it in writing between you in (terms of) equity. No scribe should refuse to write as Allah hath taught him, so let him write, and let him who incurreth the debt dictate, and let him observe his
duty to Allah his Lord, and diminish naught thereof. But if he who oweth the debt is of low understanding, or weak, or unable himself to dictate, then let the guardian of his interests dictate in (terms of) equity. And call to witness, from among your men, two witnesses. And if two men be not (at hand) then a man and two women, of such as ye approve as witnesses, so that if the one erreth (through forgetfulness) the other will cause her to recollect. And the witnesses must not refuse when they are summoned. Be not averse to writing down (the contract) whether it be small or great, with (record of) the term thereof. That is more equitable in the sight of Allah and more sure for testimony, and the best way of avoiding doubt between you; save only in the case when it is actual merchandise which ye transfer among yourselves from hand to hand. In that case it is no sin for you if ye write it not. And have witnesses when ye sell one to another, and let no harm be done to scribe or witness. If ye do (harm to them) lo! It is a sin in you. Observe your duty to Allah. Allah is teaching you. And Allah is Knower of all things” (Quran, 2:282).

“If ye be on a journey and cannot find a scribe, then a pledge in hand (shall suffice). And if one of you entrusteth to another let him who is trusted deliver up that which is entrusted to him (according to the pact between them) and let him observe his duty to Allah. Hide not testimony. He who hideth it, verily his heart is sinful. Allah is Aware of what ye do” (Quran, 2:283).

4. Order: Ideally once ordering is done, it would be important that the supplier puts a “Halal supply chain” mark of endorsement on the freight documents and packaging to show an International Halal Integrity (IHI) logistics standard (IHI Alliance, 2010). Fair mercantile is grounded in the pact that a promised deal that involves measuring goods against a certain weight is gauged accurately. All material goods should be quantified on the set standards as agreed at the time of finalizing the deal (Husein, 2014). And give full measure when you measure out, and weigh with a true balance; this is fair and better in the end. (Quran 17: 35).

2.6.5 Controlling (Green construction)

From the Islamic viewpoint then, a Sharia compliant logistics mark of endorsement would necessitate a check on: 1) Correct measures, 2) selection of environment friendly raw materials, 3) Accurate and agreed standards of the product. This would require two primary steps: evaluation and follow-up.

1. Evaluation: The goods need to be checked against the original order to ensure consistency in weight and other technical specifications (Husein, 2014). It is utmost important to ensure that evaluation is based on the original specifications and from the Sharia perspective the process requires ‘sincerity’. Sincerity means being honest and sincere by words and actions; and not having room for any false intentions or disguise. This is again an important value for a Muslim which has been highlighted as follows:

The Prophet Muhammad (pbuh) said: “Allah does not look to your bodies, to your faces, but He looks to your hearts and your deeds.”

“Indeed, We have sent down to you the Book, [O Muhammad], in truth. So worship Allah, [being] sincere to Him in religion.” (Quran, 39:2)

From the above it is evident that Islam attaches great importance to the sincerity of intentions and commitment of actions in every walk of life. Li et al. (2012) suggested that in terms of
business there is a mutual gain for both manufacturers and logistical service providers (LSPs) due to commitment. Also it was found out that commitment had a positive and direct impact on the performance of supplier functions.

2. Follow-up: Continuing and completing the process; Hellriegel et al. (2001) stated that ethics can also be considered as the rightness or wrongness of decisions and behaviors of individuals and the organizations for which they work. Bateman and Snell (2002) suggested that ethics were a system of rules governing the ordering of values.

“And O my people, give full measure and weight in justice and do not deprive the people of their due and do not commit abuse on the earth, spreading corruption.” (Qur'an, 11:85).

2.6.6 Controlling (Green building)

Sharia compliant businesses evoke environmentalism. Islamic principles are suggestive of a variety of implications in construction projects, all of which have at their heart the concern for environment. The Holy Quran calls for protecting the environment. In several verses, human beings are ordered to do so. Violation of this order is considered a sin. Allah says:

“But seek, through that which Allah has given you, the home of the Hereafter; and [yet], do not forget your share of the world. And do good as Allah has done good to you. And desire not corruption in the land. Indeed, Allah does not like corrupters.” (Qur'an, 28:77)

The sayings of the Prophet Muhammad (P.B.U.H.) on environmental sustainability are:

“The world is beautiful and verdant, and verily God, be He exalted, has made you His stewards in it, and He sees how you acquit yourselves” (Muslim, n.d.).

"If a Muslim plants a tree or sows seeds, and then a bird, or a person or an animal eats from it, it is regarded as a charitable gift (sadaqah) for him” (Bukhari, n.d.).

“Don’t waste water even if you are on a running river” (Bukhari, n.d.).

Abumoghli (2010) discussed the fact that Sharia has declared the protection of wildlife and natural resources by zoning areas, calling them ‘Hima’. In such areas human were not allowed to make any industrial development or habitation. In a way these areas were for non-human beings. The Prophet (P.B.U.H.) himself, followed by the Caliphs of Islam, established such zones and made sure they were protected by an authority as its sole purpose was for the conservation of natural resources and habitat. At times it has been argued that the Islamic concern for the environment is followed by default from the general principle: ‘Receive no injury inflict no injury’. Others who support this claim suggest that there are hundreds of verses in the Quran which instruct humans to avoid causing injury to the natural and environmental resources.

It is evident that the Sharia principles imply a mode of organising society and its various facets, as well as serving as a guide for the conduct of individuals within the institutional and social context. In these facets accountability is declared to be one of the pillars of environmental ethics within Islam: The fundamental governance of accountability in building is not merely the financial accounting and its
related answerability but it is expanded to environmentism to safeguard ecology for future generations. Al-Qaradawi (2005) explains that one of the most important Islamic concepts is the solidarity of Islamic generations one with the other. Thus, the broader environmental dimension related to building is the social concern. Building standards need to take into account this concern for preserving sustainability for future societies.

Sharia compliant projects should be permissible business. Prophet Muhammad’s (P.B.U.H.) Hadith hallmarks the significance of adhering to Islamic legislation and highlights Halal and permissible business. Therein permissible/Halal business derives its elaboration from Islamic legislation. Sharia principles are often articulated in broad terms. This has created a license to use discretion on how to apply these principles. Owing to the fact there are different schools of Islamic jurisprudence, interpretation of dicta are not always co-terminus (Wilson, 2014). Within each school there are also majority and minority views on issues, leading to a breath of applications.

3. Discussion

We argue that an appropriate Sharia compliant construction industry is both ethically sound and environmentally friendly in nature. In the context of UAE, Sharia compliant logistics fit well with the UAE government’s efforts to encourage sustainable construction. For example the Emirate of Abu Dhabi pioneered the establishment and implementation of green building codes enshrined in Estidama (Abu Dhabi Urban Planning Council, 2010; Issa & Al Abbar, 2015). These codes are mandatorily applied to private developments and government projects, albeit to a different level of subscription. Estidama possesses four pillars by enlarging the scope of the three conventional pillars of sustainability which are the environment, the economy and societal to include a cultural context. The code was developed to stimulate resource efficiency but encompassed themes such as the development process, natural systems, livable spaces, water economy, resourceful energy, stewarding materials and innovating practice.

Dubai adopted a separate green building code in 2011, the Green Building Regulations, which were compulsory for all governmental projects from that date and for all private developments, effective of 2014. The main aim of Dubai’s regulations was to enhance building performance by reducing energy, water and material consumption thereby improving the quality of life (Issa & Al Abbar, 2015).

Certainly the idea that Islamic managers should subscribe to ethical social responsibility in management is not a new theme (Ahmad, 2007). However, there is a major difference in philosophical objective between the conventional and Islamic point of view when the social responsibility is expanded to include corporate social responsibility. In the traditional dictate, it is normal for the company objectives to maximize the shareholders’ profit/wealth. Siwar and Hossain (2009) reported on the relationship between Islamic executive elite and their perspective of corporate social responsibility and its intrinsic linkage to the beauty of Islam. The same benevolent values and principles have been central to Islam where the main purpose is to serve Allah (SWT): so ergo there is a communal responsibility within that service. One of the normative significances therefore is that an Islamic corporate social responsibility should circumvent societal conflict (Kasri, 2009). Wardiwiyono (2013) recently linked corporate social responsibility with sustainability issues.

Therefore it is easily argued that Sharia compliant logistics in the construction industry for appropriate buildings is a close ally of sustainable development and provides a theme worthy of further academic and practitioner debate.
4. Conclusion

There is no doubt that Islam emphasizes principled characteristics. Many scholars and philosophers have agreed the importance of ethical foundation, not only at a societal level but intrinsic to business codes. Ethical undertakings have been seen in disciplines such as, law, politics, science, economics and management. Therefore the extension of Islamic ethics into the construction management activities for appropriate construction projects where the building itself will be used for Islamic ethos is not such a deviation into new territory; given those basic ethical principles like justice, freedom, equality, and rights should underpin all disciplines.

Seeking financial advantage with the construction industry is not wrong but arguably construction management concerning buildings that would house appropriate end-user businesses or utilization outcomes consistent with the tenets of Islam, should consider being executed in a manner consistent with an Islamic code of conduct and adopt Sharia compliant business practices when conducting the resourcing of planning, financing, procuring and building in such a way that the employee resource, construction project, its material, related information, finances and documentation flows throughout the supply chain in accordance with Sharia principles.

References


Kamali, M. H. (2010). The Halal Industry from the Shari’ah perspective. *Islam and Civilisational*


Pew Research Center (2012). The Global Religious Landscape [online]. Available from:


