STOCK SCREENING METHODOLOGIES IN BANGLADESH AND MALAYSIA: A COMPARATIVE STUDY

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ABSTRACT

The study aims to compare and critically evaluate the stock screening practices in stock exchanges in Bangladesh and Malaysia. The specific objectives determined to fulfill the aims are: (i) To review some of the Islāmic equity market norms along with juristic views (ii) To review the prevalent practices of stock screening methods used by international index providers (iii) To evaluate critically and compare the stock screening methodology used by Dhaka Stock Exchange (DSE), Chittagong Stock Exchange (CSE), and Bursa Malaysia. The study is descriptive in nature. Secondary data is utilized and collected from books, standards, journal articles and relevant publications. AAOIFI standards, OIC Fiqh Academy resolutions etc. are referenced as needed. DSE, CSE and Bursa differ in formulating ratios, denominators, numerators and in determining benchmarks. The study finds that Bursa uses two thresholds to measure Sharīʼah non-compliance, whereas DSE and CSE use a single benchmark, 5% and 4% respectively. For financial screening, DSE uses the market value of equity as a numerator whereas CSE and Bursa use total assets as a numerator. Due to these differences, one company may be included in the Sharīʼah Index in Bangladesh, but not in Malaysia and vice versa.

KEYWORDS: Islāmic Stock Indices, Sharīʼah Screening, Islāmic Capital Market, Ethical Investing, DSE, CSE, Bursa Malaysia.

JEL Classification: *G11, G15, K22, Z12, O57*

1. INTRODUCTION

Bangladesh is the fourth largest Muslim country in terms of population, where 86.6% of the population professes the religion of Islām. As a natural consequence, the Islāmic banking and finance industry is expected to have established a stronghold there. The Islāmic finance industry began its journey formally in Bangladesh, through the establishment of Islāmi Bank Bangladesh Limited (IBBL), and in Malaysia, through the establishment of Bank Islām Berhad, in the same year, 1983 (Kunhibava, 2012). Although Malaysia is now considered the hub of Islāmic finance, Bangladesh lags behind for various reasons.

There are eight (8) full-fledged Islāmic banks in Bangladesh, which only captures one-third of the market share in the banking industry in terms of deposits or investments (Bangladesh Bank, 2018). Besides Islāmic banks, other related financial institutions like insurance or *Takaful* companies, Islāmic capital markets etc. are still largely undeveloped. Islāmic banks cannot survive much longer in the requisite manner without a complete financial system that requires *Takaful* companies, Sharī'ah screened stocks, normative Islāmic stock exchanges, active Islāmic money markets etc. Numerous research papers have focused on Islāmic banking issues, yet very few focus on other sectors that should get due attention to develop a fully Islāmic financial system.

The main aim of the study is set to compare and critically evaluate the stock screening practices in Bangladesh and Malaysia in order to take an insightful overview and help the authority Bangladesh Security & Exchange Commission (BSEC) improve current practices. Three objectives are determined in line with the aims, which are: (i) To review some of the Islāmic equity market norms along with juristic views (ii) To review the prevalent practices of stock screening methods used by international index providers (iii) To critically evaluate and compare the stock screening methodology used by DSE, CSE and Bursa Malaysia.

1.1 Significance of The Study

Capital markets provide easy access to building a large and stable capital. Making an investment as an owner and taking the risk of loss is close to the Islāmic system of profit and loss sharing mechanism, since some of the practices of conventional stock markets violate Sharī'ah principles. Hence, normative Islāmic stock markets came into the picture with the growth of Islāmic finance and banking sectors, with the increasing need for establishing Islāmic capital and money markets. However, formulating a completely separate Islāmic capital market has not materialized yet, with many countries starting to maintain Sharī'ah stock indices only recently. As a result, the Dhaka Stock Exchange (DSE) maintains a Sharī'ah index called 'DSES', and Chittagong Stock Exchange (CSE) has another called 'CSI'.

It would not be wrong to assume that the Islāmic capital market in Bangladesh is focused on this area of research. This study fills the gap, and analyzes the DSES and CSI, in order to help the authority, develop deeper insight into this issue, shed light on the stock screening methods used by international index providers, and on some other issues have already been resolved or are yet to be resolved in the Islāmic capital market. The relevant juristic views and principles are also articulated, which will help authorities and readers get the complete picture of Islāmic equity markets, with a special focus on stock screening methods.

1.2 Methodology and Data Sources

The study is descriptive in nature and mainly utilizes secondary data collected from books, AAOIFI standards, OIC Fiqh Academy resolutions, journal articles and relevant publications. The data about DSES, CSI and Bursa Malaysia is mainly collected from websites and relevant publications of these two organizations.

1.3 Structure of The Paper

After the introduction, the relevant literature is reviewed in the next section, followed by a discussion of some juristic views related to stock exchange and stock trading in Section Three. Relevant references are made from the books of *Fiqh*, and standards provided by international organizations like AAOIFI. Section Four discusses stock screening methods used by international index providers such as FTSE, Dow Jones, S&P, MSCI, STOXX, Meezan Islāmic Fund etc. Section Five compares the stock screening methods used by Bursa Malaysia, DSE and CSE to formulate their Sharīʼah compliant stock indices. Sections Six and Seven conclude the paper with recommendations.

2. LITERATURE REVIEW

Investing in the stock market to take ownership in an organization is nothing objectionable in Islām in principle. Rather, it is very close to the Islāmic profit loss sharing concept (Alam *et al.*, 2017). Islāmic capital markets adopt many practices from conventional markets and modify most of them to remain free from *Riba*, *Gharar*, and *Maisir* (Osmani & Abdullah, 2009). Although investing in common stock is acceptable in Islām, many practices of trading in stock and stock exchanges violate Islāmic principles like speculation, short selling, options and futures. The restrictions on these practices make it difficult to structure a trading system that is acceptable in Islāmic principles (Naughty & Naughty, 2000).

Engkuchik (2016) finds that the screening process adopted in Malaysia is less stringent than Dow Jones and MSCI. Consequently, it suggests that Sharīʼah compliant stocks according to Malaysian criteria may be declared Sharīʼah non-compliant according to the criteria followed by International Index providers i.e., Dow Jones, MSCI. Noor Latiffah Adam (2014) compared the methods utilized by SC Malaysia and Dow Jones and found that the basic rules are the same though the level of acceptance differs because of differences in the environment, location and school of thought. There is also some harmony about Sharīʼah compliant and Sharīʼah non-compliant business activities among the major Index providers (Khatkhatay & Nisar, 2007)

Kafou and Chakir (2017) finds that STOXX is the most liberal among the four mainstream Islāmic stock market indices, and the Dow Jones Islāmic Market Index is found to be the most conservative among them. Among the methodologies evaluated by Khatkhatay and Nisar (2007), the Dow Jones Islāmic Market Index holds the most conservative position while the methodology implemented by Securities and Exchange Commission (SEC) in Malaysia appears to be most critical. Pok (2012) finds that very few companies (12.16%), listed as Sharīʼah compliant according to Malaysian criteria, pass the criteria imposed by Dow Jones. However, 63.10% qualified under the criteria of FTSE Sharīʼah Index.

Mohd-Sanusi et al. (2015) finds a similar result that many Sharīʼah compliant companies in Malaysia do not pass the criteria of liquidity and debt level used by Dow Jones Islāmic Market Index. Rashid *et al.* (2017) finds that 35%, 79% and 88% among the 188 selected companies pass the debt screen, liquidity screen and interest screen respectively. The screen was conducted based on methods used by six renowned index providers. The study also noted that 95% of the selected DSE companies passed the liquidity screen of SAC whereas 35% passed the debt screen of SAC.

In a comparison between the Sharīʼah screening methodologies followed in United States (USA) and Asian countries, it was found that those in the USA are more stringent than those followed by

Asian countries (Kasi & Muhammad, 2016). However, the screening method of Bursa Malaysia is more flexible than that of used in MSCI, DJIMI, FTSE Sharīʼah, and S&P Sharīʼah indices (Hussin *et al.*, 2015). Many index providers and countries have changed the screening criteria throughout time. Asian countries, for example, are going to be more stringent than before (Kasi & Muhammad, 2016).

The present widespread practices of speculation, as well as the interaction of professionals and the masses in stock exchanges, hinder the conventional capitalistic stock market to be efficient (el-Din and el-Din, 2002). The restriction on speculation in Islāmic jurisprudence will make Islāmic stock markets different from modern stock markets (Naughton & Naughton, 2000). A survey on a sample of 477 Sharīʼah compliant firms in Malaysia revealed that most of them are financially healthy (Pok, 2012).

Hassan and Girard (2010) find no differences in performance between the Down Jones Islāmic Market Indexes and their conventional counterparts from 1996 to 2005. Also, similar risk-reward and diversification benefits exist for both indexes. Ashraf and Marashdeh (2018) find that Islāmic equity markets in Malaysia are efficient while those of GCC countries are not.

Yildirim and Ilhan (2018) claim that the only factors suggested in the Qurʼān and Sunnah for fair judgment are endogenous factors that are in control of oneself. Consequently, book values that are in control of a company should be taken into account. In financial screening, the equity ratio is suggested by the authors, not the leverage ratio. Khatkhatay and Nisar (2007) question the use of market capitalization in the financial screens and suggest the use of other components like total assets. The authors conclude that the present practices of using cash and account receivables ratio are erroneous and faulty and actually serve no purpose at all.

2.1 Issues in Equity Market

The issues of ‘limited liability’ and ‘artificial being’ in case of modern corporations are not directly found in the original sources of *Fiqh;* however, the institutions of *Waqf* and *Baitul-Mal* may be taken as evidence of a ‘juridical entity’, and hence ‘limited liability’ of an institution (Usmani, 1998). According to AAOIFI Sharīʼah Standards, it is permissible to restrict the liability of the company up to its paid-up capital if it is made public (AAOIFI, 2015).

Preference shareholders do not share the risk like the common shareholder and get a fixed amount of dividend that violates the principle of Islāmic Sharīʼah that dictates ‘no risk, no gain’ (Ayub, 2007). According to AAOIFI, it is not permissible to issue preference shares that entail the right to be repaid first at the time of liquidation and at the time of distribution of profit. However, it is permissible to grant some procedural and administrative privileges to certain shares (AAOIFI, 2015).

Economists argue about the advantages and disadvantages of speculation: proponents claim that it ‘provides liquidity’ in the stock market, others deem speculation a zero-sum-game. Prophet Muhammad ﷺ prohibited transactions involving *Gharar* or excessive uncertainty.

“Abu Hurairah رضي الله عنه reported that the Messenger of Allāh ﷺ forbade a transaction determined by throwing stones, and the type which involves some uncertainty (Gharar).” [Sahīh Muslim 1513]

AAOIFI (2015) articulates that *Gharar* has many degrees. It is impermissible in Islāmic Sharīʼah to conclude a contract which involves a certain degree of *Gharar* that may jeopardize the fulfillment of contract stipulations. The practical approach towards the definition of excessive *Gharar*, and hence excessive speculation, is the use of cost-benefit method where the perceived benefit of speculation is measured against its cost (Hassan & Lewis, Handbook of Islāmic Banking, 2007).

Short selling is the practice of selling security that is not owned by the seller. The speculator or seller may lose some or all of the amount if the price rises instead of falls. Short selling may be used for hedging purposes also (Hull, 2012). The main issue from a Sharī'ah perspective in short selling is the matter of selling what the seller does not own which is called *'bai al-mad'um'*. The Prophet ﷺsaid, *"Don't sell what you don't have"* (Al-Fawzan, 2003). The reason behind the prohibition is the involvement of excessive risk or *Gharar* in such a transaction where the seller may become unable to deliver the commodity or goods. The majority of jurists thus denounce this kind of transaction. However, the Sharī'ah Advisory Council (SAC) of Malaysia opined that the Gharar in short selling can be removed by setting some principles to regulate short selling. If the Gharar can be removed, then short selling becomes Sharī'ah compliant (Dusuki and Abozaid, 2008).

2.2 Stock Screening Methods

There are two steps in the screening process: sector based screening and financial screening. Certain business lines are prohibited in Islāmic Sharī'ah, i.e., trading of alcohol, pork etc. In order to be a Sharī'ah compliant company, a firm must not be in one of these prohibited industries. In a real business world, a business entity or firm may have a line of business activities; some activities are permissible (*halāl)* and others are impermissible (*harām)*. Thus, the necessity of distinguishing between primary and secondary activities comes in. A business entity cannot take impermissible activities as its main business to remain on the Sharī'ah compliant list. A group of jurists from the major four schools agreed on investing in mixed business comprised of *harām* and *halāl* activities, where *harām* activities are minor, with some conditions (Alam *et al.*, 2017).

After the primary or sector-based screening, the financial statements of the firms or companies are screened to check whether they pass several financial or accounting ratios. The ratios can be classified into two categories: income statement ratio and balance sheet ratios. Income statement ratio is calculated to ensure that the income of the firm or the company from non-Sharī'ah compliant activities is limited to a certain percentage. The commonly used benchmark is 5%, meaning the earnings from non-Sharī'ah compliant activities should not exceed 5% of the firm's gross revenue (Alam *et al.*, 2017). Besides applying the 5% benchmark, Meezan Islāmic Fund also adds that a firm cannot invest more than 33% in non-Sharī'ah compliant business in case of mixed business (Khatkhatay & Nisar, 2007). The most common types of balance sheet ratios used are: Debt ratio, Liquid assets ratio, and Receivable ratio.

Debt ratio is used to control interest-based financing. The benchmark 33% or one third used in the financial screens is not set by the Qur'ān or Sunnah, rather by jurists. Table 2 provides details of the Debt screens criteria used by major index providers.

Table 2. Debt Screen Criteria

Dow Jones Islāmic	Total debt / Trailing 24-month average market capitalization < 33%
S&P Sharī'ah	Total debt/ Trailing 36-month average market capitalization < 33%
MSCI Islāmic	Total debt / Total assets < 33.33%
FTSE Sharī'ah	Total debt / Total assets < 33%
STOXX Islāmic	Total debt/ max (Total assets, Total market capitalization) < 33%

Source: (Kafou and Chakir, 2017)

2.3 Liquidity Screen

The objective of liquidity screening is to remove the possibility of exchanging two cash or liquid items in different values. Table 3 details the liquidity screen used by major index providers.

Table 3. Liquidity Screen Criteria

Dow Jones Islāmic	Cash & interest-bearing securities / Trailing 24-month average market capitalization < 33%
S&P Sharī'ah	Cash & interest-bearing securities / Trailing 36-month average market capitalization < 33%
MSCI Islāmic	Cash & interest-bearing securities / Total assets < 33.33%
FTSE Sharī'ah	Cash & interest-bearing securities / Total assets < 33%
STOXX Islāmic	Interest bearing assets / max (Total assets, Total market capitalization) < 33%

Source: (Kafou & Chakir, 2017)

2.4 Account Receivable Screen

The objective of the account receivable screen is to screen out the financial institutions i.e. if account receivable is more than 50%, it is deemed as a financial institution and thus excluded (Kafou and Chakir, 2017).

Table 4. Account Receivable Screen Criteria

Dow Jones Islāmic	Account receivable / Trailing 24-month average market capitalization < 33%
S&P Sharī'ah	Account receivable / Trailing 36-month average market capitalization < 49%
MSCI Islāmic	Account receivable / Total assets < 33.33%
FTSE Sharī'ah	Cash & account receivable / Total assets < 50%

Source: (Kafou & Chakir, 2017)

2.5 Comparing Screening Methods

DSE follows the S&P Dow Jones methodology to formulate Sharī'ah index. As DSES (DSEX Sharī'ah Index) is a subset of DSEX (DSE Broad Index), the stocks in the DSEX are screened to be included in the Sharī'ah Index or DSES. It follows a two-step process: after passing the sector-based screening, each stock has to pass the accounting-based screenings to be called 'Sharī'ah compliant' and included in the DSES (DSE, 2014).

CSE follows the guidelines deduced by TASIS for Bangladesh market to formulate their own Sharīʼah index called CSE Sharīʼah Index or CSI. Like DSE and most of the international index providers, each stock has to pass the two steps to be included in the CSI. Bursa Malaysia follows the guidelines provided by Sharīʼah Advisory Council (SAC) of Malaysia. Before 2014, Bursa only followed business activity benchmarks: 5%, 10%, 20%, 25%, and no accounting or financial ratios were used (Rashid *et al.*, 2017). According to the revised standard effective from 2013, business activity benchmarks have been reduced to two: 5% and 20%. Besides sector or activity-based screening, financial screenings are also now included in the process to formulate Sharīʼah indices. Besides this, in case of mixed businesses, Bursa use some subjective criteria, for example: if a company has good public image and serves public interest, it can be included if it passes the financial screening requirements (Khatkhatay & Nisar, 2007; Ali, 2005).

2.6 Primary & Income Statement Screening

There is a clear difference between the methods utilized in Bangladesh and Malaysia. Like most international index providers, DSE and CSE exclude the companies which are in prohibited sectors, whereas Bursa uses two benchmarks here. Those companies are made eligible for financial screening which pass the primary criteria. Although DSE and CSE use 5% benchmark criteria to judge mixed companies or conglomerates that have different lines of business. There is much more similarity when it comes to choosing Sharīʼah non-compliant business activities. Table 5 provides a list of sectors which are considered Sharīʼah non-compliant according to DSE and CSE.

Table 5. Sharīʼah Non-Compliant Sectors

DSE	CSE
▪ Advertising and Media ▪ Alcohol ▪ Cloning ▪ Conventional Banks, Non-banking Financial Institutions (NBFI), Insurance etc. ▪ Gambling ▪ Pork ▪ Pornography ▪ Tobacco ▪ Trading of Gold and Silver on deferred basis	❖ Conventional Financial Institutions (Banks, Insurance, NBFI, Stock Broking etc.) ❖ Production and marketing of Non-Halal foods like Alcohol, Tobacco etc. ❖ Companies involved in vulgar entertainments ❖ Hotels and Restaurants ❖ Gambling, Drugs etc.
	Sources: DSE & CSE Websites

The lists are indicative, not exhaustive. However, as it is shown from the table, there are many more similarities in business sectors that can be deemed Sharīʼah non-compliant. As in the real world, business activities are complex. There are many companies or conglomerates whose main activities are Sharīʼah compliant but have earnings or business lines in prohibited businesses. Thus, both DSE and CSE use income benchmarks to determine that the earnings from the prohibited or doubtful business activities are minimal, but the structures of the ratio to determine the non-compliant income differ from one another. One of the reasons may be the structure of other ratios used which also differ. Table 6 shows the structure of the ratios.

Table 6. Structures of the Non-permissible Income

DSE	Non-permissible income other than interest income / Revenue < 5%
CSE	Interest income + 9% interest bearing investment / Revenue < 4%
	Sources: (DSE, 2014) & TASIS Guidelines

According to the SAC of Securities Commission Malaysia, revenues are compared to two benchmarks: 5% benchmark and 20% benchmark. The activities are listed in Table 7 according to the benchmark.

Table 7. Activity Benchmark of SC Malaysia

5%	○ Conventional banking and insurance ○ Gambling ○ Liquor, Pork, Tobacco and related activities ○ Prohibited food items ○ Prohibited entertainment ○ Interest income from conventional financial instruments, and ○ Other activities deemed non-Sharīʼah compliant.
20%	▪ Share and stockbroking business ▪ Rental received from non-Sharīʼah compliant activities ▪ Other activities deemed non-Sharīʼah compliant.
	Sources: SC Malaysia Website

There is a major difference between the primary screening or sector based screening methods used by DSE, CSE and Bursa Malaysia. Malaysia uses two benchmarks against which the Sharīʼah non-compliant earnings are measured, whereas DSE and CSE use sector based screening first before applying income screening. DSE does not use interest earnings whereas CSE uses interest earnings plus earnings from the instruments associated with 9% rate to determine the amount of non-Sharīʼah compliant activities. So, the structures of the income statement ratio differ in Bangladesh also between DSE and CSE.

2.7 Balance Sheet Ratio Screening

One ratio which is used almost by all index providers is the debt ratio. DSE, CSE and Bursa Malaysia use debt ratio to limit the interest bearing debt in the balance sheet of the companies. The structure of the ratio is depicted in Table 8.

Table 8. Debt Ratios in DSE, CSE and Bursa Malaysia

DSE	Debt / Market Value of Equity (36 Months Average) < 33%
CSE	Debt / Total Assets < 33%
Bursa Malaysia	Debt / Total Assets < 33%

Source: DSE, CSE & SC Websites

Here, debt only includes the interest bearing short and long term debt or liabilities and does not include debt from Islāmic banks or financial institutions. Though all three use debt as the numerator and 33% as threshold, the denominator differs. CSE and Bursa Malaysia use the same denominator, total assets, whereas DSE use market value of equity trailing 36-month average. DSE uses two ratios to measure the cash compliance, whereas CSE and Bursa use one ratio. Table 9 details the structure of the ratios.

Table 9. Cash Compliance Ratios in DSE, CSE and Bursa Malaysia

DSE	Account Receivables / Market Value of Equity (36 Months Average) < 49%
	Cash + Interest bearing securities / Market Value of Equity (36 Months Average) < 33%
CSE	Cash and cash equivalent + Receivables / Total Assets < 90%
Bursa Malaysia	Cash / Total Assets < 33%

Sources: DSE, CSE & SC Websites

Cash does not include the amount placed in Islāmic financial institutions according to Bursa, but demand deposits with Islāmic banks will be added to cash according to CSE. The thresholds also vary widely from 33% to 90%. DSE uses two ratios unlike CSE and Bursa which use single ratio in this case. The denominator for CSE and Bursa is total assets whereas DSE takes the market value of equity into account for both ratios.

3. CRITICAL ANALYSIS

The comparisons show that all the three stock exchanges have their own ratios and thresholds. So, a stock may be Sharī'ah compliant and included in DSES but may be considered as non-Sharī'ah compliant according to the rules of SAC of Malaysia. Even within Bangladesh, the same stock may be considered Sharī'ah compliant in DSES but non-Sharī'ah compliant in CSI because of different financial ratios used and different numerator, denominator with different threshold. There are no universal standards provided by any international standard setters like AAOIFI. The individual Sharī'ah boards of the international index providers come up with their own understanding, and the divergence becomes inevitable.

The Sharī'ah Advisory Council (SAC) of Securities Commission Malaysia is the central authority in Malaysia to issue and set Sharī'ah standards in the capital markets. Hence, all the indices and stock exchanges follow the same Sharī'ah guidelines. This provides a single guideline for all at least within a country. However, this is not the case in Bangladesh. As there is no central authority that can impose and formulate Sharī'ah guidelines for the capital market, DSE and CSE follow the guidelines of S&P Dow Jones and TASIS respectively. This is the reason there is a wide variation between the ratios used by DSE and CSE. BSEC (Bangladesh Securities & Exchange Commission) should take steps to converge the standards of DSE and CSE so that a single guideline is used in Bangladesh.

Defense industries are included in the permissible list by DSE and the reason provided is that it can be used in permissible and non-permissible ways. As noted earlier, most defense companies are in the ownership of, and located in non-Muslim majority countries that do not serve the interests of the Muslims. CSE listed hotels and restaurants in the non-Sharī'ah compliant list. Most hotels do serve *harām* food and beverages and are used as a place for non-Sharī'ah compliant activities, but this is not the whole picture. It is suggested that CSE should conduct an in-depth study to get the complete picture. The SAC of Malaysia recently excluded hotels and resorts from the non-Sharī'ah compliant list and argued that the main objective of hotels and resorts is to provide accommodation, which is well within the ambit of 'permissible'.

The DSE uses the market value of equity as the denominator in the ratios, unlike CSE and Bursa. Using the market value raises some problems, as the market value does not always depend on the fundamentals. Rather, it is based on the expectations of the participants. Sudden price movements can make Sharī'ah compliant stocks to Sharī'ah non-compliant and vice versa as the amount in the denominator will be changed (Ali, 2005). Thus, using book value rather than market value may provide better stability in the index. However, this has its own problems. As, different companies use different account standards to list assets and liabilities in their financial statements. The problems can be solved by using denominators based on the objectives, i.e., total assets for debt screens as its objective is to control interest based financing to fund the total assets and capitalization in case of liquidity ratio, as its objective is to ensure that liquid assets are traded at par (Kafou & Chakir, 2017)

It is expected that the ratios used serve the objectives intended. It is also imperative to take the benefit of concessions that the Sharī'ah permits but not to make the permissible impermissible in the name of 'public welfare' or 'unavoidable evil'. Interest bearing debt is prohibited in the Sharī'ah. Yet, because of its prevalent nature, a general consensus to accept a degree of compromise has been developed. Nevertheless, the compromise should be kept at a minimum without which businesses cannot survive and public interest cannot be fulfilled.

As there was almost little or no opportunity to fund in a Sharī'ah compliant way, it might be acceptable to fund a company with one third interest bearing debt. Since there are many Islāmic financial institutions now, and in Bangladesh Islāmic banks capture about one third of the market share, the threshold should be reduced from 33%. Khatkhatay and Nisar (2007) suggested that debt to total assets ratio should be less than 25% or even 20%. As this is a compromise, it should be based only on necessity, and in this case working capital requirements. However, DSE uses debt to equity ratio rather than debt to total assets that makes it stricter than Bursa and CSE as there is no apparent reason to use equity rather than total assets.

To limit the non-Sharī'ah compliant income, DSE takes into account non-Sharī'ah compliant income other than interest. Bursa and CSE take into account interest income also, like most of the international index providers. There is no compelling need to use two ratios for cash compliance as done by the DSE. The reasons for adding interest bearing securities to cash are not clear. If it is to limit investment in interest bearing securities, then adding cash is not needed. If it is to ensure that liquid assets or cash are not traded except at face value, then there is no reason for using another ratio that the DSE uses, besides there will be no measure to limit the portion of interest income in total income (Khatkhatay & Nisar, 2007).

CSE on the other hand sets that cash and receivables should be less than 90% of the total assets. Meezan Islāmic Fund use the same criteria but in different words. According to Meezan Fund, net illiquid assets should be equal to or greater than 10% of the total assets. As the source of interest income is the investment in interest bearing assets or funds, Meezan Islāmic Fund uses a ratio to limit the investment in Sharī'ah non-compliant business, the threshold set is 33% (Ali, 2005). DSE and CSE are recommended to use this ratio as it limits the source of interest earnings. However, the threshold of 33% is too much, and should be 10% as suggested by Khatkhatay and Nisar (2007). Using accounts receivable as a separate ratio serves no purpose at all. One ratio as used by CSE and Bursa to ensure the cash compliance is reasonable.

4. FINDINGS AND CONCLUSION

The aim of this current research is worth mentioning again, which is 'to compare and critically evaluate the stock screening practices between Bangladesh and Malaysia'. To achieve this broad aim, three objectives have been set. This section will summarize the findings or answers according to the objectives in bullet lines. Recommendations are also provided before the conclusion.

4.1 Reviewing Islāmic Equity Market Norms

§ There is nothing wrong from a juristic point of view to invest in stock markets in principle. Rather, stock market investment resembles the Islāmic concept of profit loss sharing. One can invest in the stock market on two conditions: the main business activity of the company should be *halāl* and the company has to pass a few accounting or financial screenings (Alam *et al.,* 2017).

§ Due to its resemblance to debt and fixed return, preferred stocks are not Sharī'ah compliant (AAOIFI, 2015).

§ Speculative activities which destabilize the market are not permitted. However, a level of speculation may be permitted which cannot be avoided or which keeps the market active (AAOIFI, 2015; Hassan & Lewis, Handbook of Islāmic Banking, 2007).

§ Short selling is not permitted by the majority, as the seller sells what he does not own or possess. However, regulated short selling has been permitted by the Malaysian authority in Malaysia and the authority claims that with regulation the uncertainty in short selling can be removed (Dusuki & Abozaid, 2008).

4.2 Reviewing Current Practices of Screening Methods

§ All the international index providers use two steps methods: primary screening or activity screening and secondary screening or financial ratio screening. Though primary screening is almost similar among all the index providers, financial ratios are not completely similar (Khatkhatay & Nisar, 2007). The main reason for the dissimilarities is the different understanding and compromise level of different Sharī'ah boards (Ali 2005; Alam *et al.*, 2017).

§ Out of the three accounting ratios or screens used, the most are: cash ratio, debt ratio, and non-permissible income ratio.

§ The denominators and numerators used by the index providers differ from one another. For example: in denominator, some use total assets whereas others use market capitalization (Kafou & Chakir, 2017).

4.3 Comparing Methods between Bangladesh & Malaysia

§ Bursa Malaysia developed their indices with the help of FTSE whereas DSE developed their indices with the help of S&P Dow Jones, and CSE developed their indices with the help of India Index Private Limited. However, Sharīʼah indices in Malaysia strictly follow the guidelines provided by SAC of Securities Commission Malaysia.

§ Bursa uses two activity benchmark indices: 5% and 20% which were previously four. DSE and CSE use non permissible income ratios after excluding companies whose main activities are not Sharīʼah compliant. The benchmarks of DSE and CSE are 5% and 4% respectively.

§ CSE and Bursa use total assets as numerator in ratios whereas DSE uses market value of equity as numerator in ratios. Some of the ratios do not serve the objectives at all or fail to serve the objectives intended.

§ Due to different thresholds and numerators and denominators in ratios, one company may be declared Sharīʼah compliant in Bangladesh but non-Sharīʼah compliant in Malaysia. Even within Bangladesh, this may be true in the case of DSE and CSE.

In case of sector based screening, Bursa uses two thresholds to measure Sharīʼah non-compliance whereas the benchmark used by DSE and CSE are 5% and 4% respectively. For financial screening, DSE uses market value of equity as numerator whereas CSE and Bursa use total assets as numerator. Owing to the differences, one company may be included in Sharīʼah Index in Bangladesh, but not in Malaysia and vice versa.

5. RECOMMENDATIONS

§ It is suggested to form a Sharīʼah Advisory Council in BSEC who will have the final say in any Sharīʼah resolutions.

§ DSE and CSE are expected to follow single guidelines so that investors do not get confused by different standards in the same jurisdictions.

§ It is expected that the financial screening will meet the objectives intended. Based on the critical analysis in the previous chapter, a set of ratios is suggested that may help the authority in the formulation of a unified standard. The ratios should be applied after applying the primary or sector-based screening.

Table 10. Recommended Ratio Structures

Name of Ratios	Ratio Structures	Objectives
Income statement ratio	Non-permissible Income / Return < 5%	To limit the non-permissible income.
Debt ratio	Debt / Total Assets < 25%	To limit interest bearing debts to finance assets.
Liquidity ratio	Cash & Equivalents / Market Capitalization < 33%	To ensure that liquid assets are traded at par.
Investment ratio	Investment in non-Sharīʼah compliant activities / Total Investment < 10%	To limit the investment in prohibited business.

BIBLIOGRAPHY

Accounting and Auditing Organization for Islāmic Financial Institutions. (2015). *Sharī'ah Standards*. Manama: Dar Al Maiman.

Ahmad, N. W., Ripain, N., & Noor, D. N. (2014). Investment in Stock Market: A Review on Islāmic Perspectives. *Synergizing Knowledge on Management and Muamalah*, (pp. 393-403).

Alam, M. M., Akbar, C. S., Shariar, S. M., & Monzur-E-Elahi, M. (2017). Islāmic Sharī'ah Principles for Investment in Stock Market. *Qualitative Research in Financial Markets, 9*(2), 132-146.

Al-Fawzan, D. S. (2003). *Forbidden Business Transactions in Islām.* United States of America: Al-Ibaanah Book Publishing.

Al-Fawzan, D. S. (2009). *A Summary of Islāmic Jurisprudence* (2nd ed., Vol. 2). Kingdom of Saudi Arabia: Al Maiman Publishing House.

Ali, S. S. (2005). *Islāmic Capital Market Products: Developments and Challenges.* Jeddah: Islāmic Research and Training Institute (IRTI), Islāmic Development Bank Group.

Ashraf, D. S., & Marashdeh, D. H. (2018, January-March). Efficiency and Memory Dependence OF Sharī'ah Equity Markets. *Journal of Islāmic Economics, Banking and Finance, 14*(1), 192-204.

Ayub, M. (2007). *Understanding Islāmic Finance.* West Sussex: John Wiley & Sons Ltd.

Bangladesh Bank (2018). *Developments of Islāmic Banking in Bangladesh*. Dhaka: Bangladesh Bank.

Bodie, Z., Kane, A., & Marcus, A. J. (2014). *Investments* (10th ed.). New York: McGraw-Hill Education.

CSE. (2018, 7 29). *CSE Sharī'ah Index*. Retrieved from Chittagong Stock Exchange Website: http://www.cse.com.bd/cse_Sharī'ah.php

DSE. (2014). *Methodology of DSEX Sharī'ah Index (DSES).* Dhaka: Dhaka Stock Exchange Limited.

DSE. (2018, 7 29). *Dhaka Stock Exchange Ltd.* Retrieved from Dhaka Stock Exchange Ltd. Web site: https://www.dse.com.bd/

Dusuki, A. W. (Ed.). (2012). *Islāmic Financial System: Principles & Operations.* Kuala Lumpur: International Sharī'ah Research Academy for Islāmic Finance (ISRA).

Dusuki, A. W., & Abozaid, A. (2008). Fiqh Issues in Short Selling as Implemented in the Islāmic Capital Market in Malaysia. *Journal of King Abdul Aziz University: Islāmic Economics, 21*(2), 63-78.

el-Din, S. I. (1996). The Stock-Exchange from an Islāmic Perspective. *Journal of King Abdul Aziz University: Islāmic Economics, 8*, 29-48.

el-Din, T., & el-Din, S. I. (2002). Towards an Islāmic Model of Stock Market. *Journal of King Abdul Aziz University: Islāmic Economics, 12*, 3-29.

Engkuchik, E. N. S., 2016. A Review of Securities Commission of Malaysia's Revised Sharīʾah Stock-Screening Criteria. *Journal of Islāmic Banking and Finance*, 4(1), pp. 71-80.

Hassan, M. K., & Girard, E. (2010, January). Faith-Based Ethical Investing: The Case of Dow Jones Islāmic Indexes. *Islāmic Economic Studies, 17*(2), 1-31.

Hassan, M. K., & Lewis, M. K. (Eds.). (2007). *Handbook of Islāmic Banking.* Cheltenham, United Kingdom: Edward Elgar.

Hull, J. C. (2012). *Options, Futures, and Other Derivatives.* Essex: Pearson Education Ltd.

Hussin, A., Hussin, N., & Razak, D. A. (2015). Sharīʾah Stock Screening Methodology: A Comparison Between Sharīʾah Advisory Board of Securities Commission Malaysia and International Index Providers. *Proceedings of the Colloquium on Administrative Science and Technology*, (pp. 191-202). Singapore.

Jamal, J., Hambali, N., & Ali, H. M. (2010). Islāmic capital market and Sharīʾah screening in Malaysia. *International Research Symposium in Service Management*, (pp. 1-16). Mauritius.

Kafou, A., & Chakir, A. (2017, April). From Screening to Compliance Strategies: The Case of Islāmic Stock Indices with Application on "MASI". *Islāmic Economic Studies, 25*(Special Issue), 55-84.

Kasi, U., & Muhammad, D. J. (2016). Strict and Uniform Sharīʾah Screening Methodologies in Selected Asian Countries in Comparison with the United States. *Asian Journal of Finance & Accounting, 8*(1), 38-76.

Kevin, S. (2007). *Security Analysis and Portfolio Management.* New Delhi: Prentice-Hall of India Private Limited.

Khatkhatay, M., & Nisar, S. (2007, July). Sharīʾah Compliant Equity Investments: An Assessment of Current Screening Norms. *Islāmic Economic Studies, 15*(1), 47-76.

Kunhibava, Sherin. (2012). Islāmic Banking in Malaysia. *International Journal of Legal Information.*

McMillen, M. J. (2006, November). Islāmic capital markets: developments and issues. *Capital Markets Law Journal, 1*(2), 136-172.

Mohd-Sanusi, Z., Ismail, R., Hudayati, A., & Harjito, D. A. (2015). Screening Process of Sharīʾah-Compliant Companies: The Relevance of Financial Risk Management. *International Journal of Economics and Management (IJEM), 9*(1), 177-195.

Naughton, S., & Naughton, T. (2000, January). Religion, Ethics and Stock Trading: The Case of an Islāmic Equities Market. *Journal of Business Ethics, 23*(2), 145-159.

Noor Latiffah Adam, N. A. B., 2014. Sharīʾah Screening Process in Malaysia. *Procedia - Social and Behavioral Sciences*, Issue 121, pp. 113-123.

Osmani, N. M., & Abdullah, F. (2009, September). Towards An Islāmic Stock Market: A Review on Classical and Modern Literatures. *International Review of Business Research Papers, 5*(5), 121-130.

Philips, D. A. (2005). *Evolution of Fiqh* (2nd ed.). Riyadh: International Islāmic Publishing House (IIPH).

Pok, W. C. (2012). Analysis of Syariah Quantitative Screening Norms among Malaysian Syariah Compliant Stocks. *Investment Management and Financial Innovations, 9*(2), 69-80.

Rashid, M., Hassan, M. K., Amin, N., & Samina, Q. S. (2017, April-June). Sharīʼah Compliant Companies in Bangladesh. *Journal of Islāmic Economics, Banking and Finance, 13*(2), 128-143.

SC Malaysia. (2018, 7 29). *Frequently Asked Questions*. Retrieved from Securities Commission Malaysia: https://www.sc.com.my/frequently-asked-questions-on-revised-Sharīʼah-screening-methodology/

The Qur'ān. (2010). (S. International, Trans.) Riyadh, KSA: Al-Muntada Al-Islāmi.

Usmani, M. T. (1998). *An Introduction to Islāmic Finance.* Karachi: Idaratul Ma'asrif.

Usmani, M. T. (2018, June 10). *Principles of Sharīʼah Governing Islāmic Investment Funds*. Retrieved June 10, 2018, from Albalagh: http://www.albalagh.net/Islāmic_economics/finance.shtml

Yildirim, R., & Ilhan, B. (2018, January-March). Sharīʼah Screening Methodology- New Sharīʼah Compliant Approach. *Journal of Islāmic Economics, Banking and Finance, 14*(1), 168-191.