

THE DEVELOPMENT OF SHARIAH-COMPLIANT LISTED CONSTRUCTION COMPANIES INDEX

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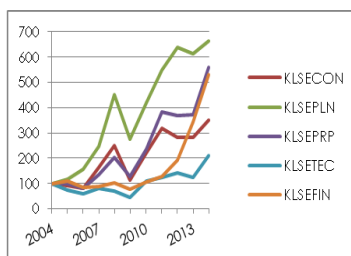
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Graphical abstract



Abstract

It is paramount to choose the appropriate index which coordinates with the composition of a particular portfolio amid examining the performance. The purpose of this study is to examine the performance of Shariah-compliant construction sector involving construction companies listed in Bursa Malaysia. The objective of this study is to develop Shariah-compliant indices comprising of construction sector and other Shariah-compliant sectors in Bursa Malaysia from 2004 to 2014. These indices are intended to be used to assist investors to compare the performance of listed construction companies (35 Shariah compliant companies as in November 2014) with other asset classes. The data collected reflects a full year annual return of the companies in the sample for the period regardless of each company's financial year. The findings are expected to show portfolio diversification benefits of investing in Shariah-compliant listed construction companies. This will encourage more investors, locally and internationally, to invest in Shariah-compliant construction companies.

Keywords: Construction sector, Shariah-compliant

Abstrak

Adalah penting untuk memilih indeks yang sesuai yang menyelaras dengan komposisi portfolio tertentu di tengah-tengah memeriksa prestasi. Tujuan kajian ini adalah untuk mengkaji prestasi sektor pembinaan yang mematuhi Syariah yang melibatkan syarikat-syarikat pembinaan yang tersenarai di Bursa Malaysia. Objektif kajian ini adalah untuk membangunkan indeks patuh Syariah yang terdiri daripada sektor pembinaan dan sektor patuh Syariah lain di Bursa Malaysia dari tahun 2004 hingga 2014. Indeks ini adalah bertujuan untuk digunakan untuk membantu para pelabur untuk membandingkan prestasi syarikat-syarikat pembinaan yang tersenarai (35 syarikat-syarikat yang mematuhi Syariah seperti pada bulan November 2014) dengan kelas aset yang lain. Data yang dikumpul mencerminkan pulangan setahun penuh syarikat-syarikat dalam sampel bagi tempoh kira-kira tahun kewangan setiap syarikat. Hasil kajian dijangka akan menunjukkan manfaat kepelbagaian portfolio pelaburan dalam syarikat-syarikat pembinaan yang mematuhi Syariah yang disenaraikan. Ini akan menggalakkan lebih ramai pelabur dalam dan luar negara, untuk melabur dalam syarikat-syarikat pembinaan yang mematuhi Syariah.

Kata kunci: Sektor Pembinaan, Patuh Syariah

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1.0 INTRODUCTION

The importance of performance and benchmarking can be categorized into 3 classification. There are

investors, governments and individuals. Every of these categories have their own interest and advantage for future venture.

1. Investors

- Have some information regarding the sectors before they invest
 - Consider the opportunity and risk in order to gain more profit
 - For the Islamic investors, they can identify which are compliant or not with principles of Islam.
2. Government
- They can monitor and get the new information the growth of economy which involves the sub-indices
 - They can come out with new solution, programmed and initiatives in order to increase the sectors which are showing less performance and contribute to the growth of economy
 - They also can attract more investors especially Islamic country to invest in our country because it safe and guaranteed
3. Individual
- For individuals, they have many choices and consideration before invest in a particular sector.
 - They also can get latest information about the sectors they are interested in before they invest
 - For the Muslim individual investor, they may know which companies are listed under Shariah-compliant and this will help them to avoid from invest in Non-Shariah-compliant.

The requirement for Islamic indices created with the developing interest for Shariah-compliant venture arrangements. Today, Shariah-compliant indices are broadly utilized by Islamic and ordinary banks, resource chiefs and other monetary establishments. The lists are utilized for a few purposes including serving as:

- Performance benchmarks for Shariah-compliant portfolios;
- The basis for index-linked investment products such as exchange traded funds, mutual funds and structured products; and
- Selection pools for effectively oversight portfolio [1].

Thus, this study developed Shariah-compliant indices particularly for listed construction companies and selected sector that is related to the construction industry, filtered from Bursa Malaysia. With these new indices, it may assist investors to analyse and choose the best performed Shariah-compliant companies' to invest on.

2.0 METHODOLOGY

For this research, there are five sectors was selected from the Bursa Malaysia (KLSE). On selecting these sectors, researcher relates with the construction industry based on the listed companies for every sectors. For examples, in KLSETEC, researcher chooses the listed companies that involved or provided materials, equipment or technology that related to construction. It is same goes with KLSEPLN, one of listed Shariah-compliant company is Sime Darby. Sime Darby subsidiaries involved in construction industry, under Sime Darby Property. After selected

the five sectors, find the listed companies were identified from Bursa Malaysia (KLSE) by using the Shariah-compliant securities as the reference [2].

The selected sectors are KLSECON for construction, KLSEPLN for plantation, KLSEPRP for properties, KLSETEC for technology and KLSEFIN for finance. Referring to Table 1, the construction sector have 35 Shariah-compliant listed companies out of 43 total securities. The percentage shows 81% of construction sector consists of Shariah construction companies which are compliant with SAC principles. For the plantation companies, there are 41 companies listed in KLSE. Out of 41, 37 of them are Shariah-compliant companies while the rest are non-compliant Shariah companies. Property sector, recorded 86 companies in Bursa Malaysia and 67 of them are Shariah-compliant companies. There are 91 technology companies listed in Bursa Malaysia. Out of 91, only 73 of them were listed in Bursa Malaysia as Shariah-compliant. Meanwhile, for the finance companies, there are 35 companies listed in Bursa Malaysia but only two (2) companies are Shariah-compliant companies, the rest are non-Shariah companies.

Table 1 List of Shariah-compliant Securities by 28 November 2014 [2]

Main Market/ Ace Market	Number Of Shariah- Compliant Securities	Total Securities	Percentage Of Shariah- Compliant Securities (%)
Consumer Products	107	132	81
Industrial Products	200	257	78
Mining	Nil	1	Nil
Construction	35	43	81
Trading/Services	146	205	71
Properties	67	86	78
Plantation	37	41	90
Technology	73	91	80
Infrastructure	4	6	67
Finance	2	35	6
SPAC	2	3	67
Hotels	Nil	4	Nil
Closed-end fund	Nil	1	Nil
Total	673	905	74

In this context, the construction of the Bursa Malaysia's Shariah-compliant Construction sector (KLSECON) Index is significant to show the historical performance of previous listed construction companies in Malaysia. All total return indices are constructed on an annual basis to ensure sufficient data points over this time period in constructing these indices, with the market capitalisation-weighted scheme applied due to the consistency

with the other existing KLSE indices. All indices have been rebased at base date = 100. The index is constructed using the following equation:

$$\left(\left(\frac{\sum M_n R_n}{\sum M_n} \right) + 1 \right) \times \text{base value}_{t-1}$$

where M_n represents the market capitalisation for Shariah-compliant listed companies, R_n is the total return for Shariah-compliant listed companies, n is number of Shariah-compliant listed companies available and t is the corresponding year and the first base value is set at 100. The development of this Shariah-compliant Listed Construction Companies Index is important as investment performance indices have specific applications for a range of interest groups.

To analyse the portfolio diversification benefits of Bursa Malaysia's Shariah-compliant Construction sector, the inter-asset correlation matrix is used. In determining portfolio diversification benefits, correlations which are close to one show a lack of diversification benefits. Correlation coefficients which are closer to zero or slightly negative will have a diversification effect. To calculate the reward-to-risk ratio for each asset, the formula is indicated below:

$$\text{Reward-to-risk ratio} = \text{Return} / \text{Risk}$$

3.0 RESULTS AND DISCUSSION

3.1 Index Development

The Bursa Malaysia's Shariah-compliant Construction sector (KLSECON) Index has been developed to assist further empirical analyses in this research. Figure 1 shows the Bursa Malaysia's Shariah-compliant Construction sector (KLSECON) Index in comparison to other selected Shariah-compliant sectors from 2004 until 2014.

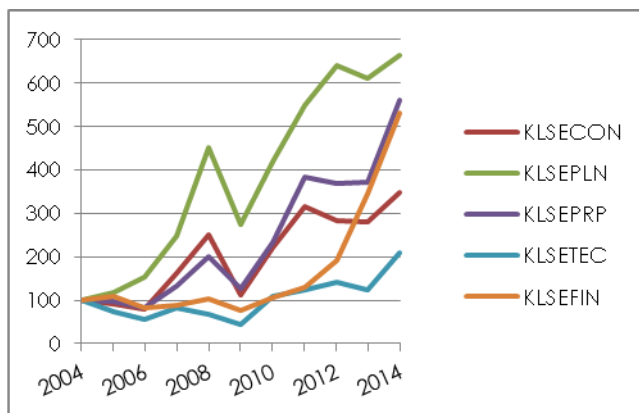


Figure 1 Author's calculation of Selected Shariah-compliant Indices linked to Construction Sector in Bursa Malaysia

3.2 Return and Risk Analysis

Using Bursa Malaysia's Shariah-compliant Construction sector index developed in this research, Table 1 presents the performance analysis for the Bursa Malaysia's Shariah-compliant Construction sector and other Bursa Malaysia's Shariah-compliant sectors over the period of 2005 to 2014. The Bursa Malaysia's Shariah-compliant Construction sector showed the 4th highest average annual returns (13.32% p.a.) in comparison to the other sectors, which ranged from 7.71% to 20.83%. The lowest average annual return was given by the Bursa Malaysia's Shariah-compliant Property sector with 7.71%, while the highest was given by the Bursa Malaysia's Shariah-compliant Plantation sector with 11.17%.

However, the Bursa Malaysia's Shariah-compliant Construction sector's annual risk level (51.44%) has the second highest risk level in comparison to other sectors (33.62% to 41.83%). The highest risk was given by Bursa Malaysia's Shariah-compliant Technology sector (56.34%) while lowest risk was given by the Bursa Malaysia's Shariah-compliant Finance sector (33.62%). On a reward-to-risk ratio, the Bursa Malaysia's Shariah-compliant Construction sector showed a return to risk ratio of 0.26 over this period, compared to the return to risk ratios in the other sectors of 0.14 to 0.60. The highest return to risk ratio was given by the Bursa Malaysia's Shariah-compliant Plantation sector (0.60), while the lowest return to risk ratio performance was given by the Bursa Malaysia's Shariah-compliant Property sector (0.14). Table 2 shows the risk and return analysis of Bursa Malaysia's Shariah-compliant construction sSector with selected Shariah-compliant sectors from year 2005 up to year 2014.

Table 2 Risk and Return Analysis of Bursa Malaysia's Shariah-compliant Construction Sector with Selected Shariah-compliant Sectors: 2005 to 2014

	KLSECON	KLSEPLN	KLSEPRP	KLSETEC	KLSEFIN
Average Annual Return	13.32%	20.83%	18.82%	7.71%	18.16%
Average Risk	51.44%	34.70%	41.83%	56.34%	33.62%
Return-to-Risk Ratio	0.26	0.60	0.45	0.14	0.54

3.3 Portfolio Diversification Benefits

Table 3 presents the Bursa Malaysia's Shariah-compliant Construction sector inter-asset correlation matrix over the period of 2005 to 2014. Overall, Bursa Malaysia's Shariah-compliant Construction sector has a significant correlation ($r = 0.70$ to 0.93) with the other asset classes (KLSETEC, KLSEPLN and KLSEPRP) and reflects differences in portfolio diversification benefits to the other asset classes over this period.

Bursa Malaysia's Shariah-compliant Construction sector also has a higher correlation with the other Bursa Malaysia's Shariah-compliant sub-indices. In comparison to the other sectors, Bursa Malaysia's Shariah-compliant Construction sector has a lower correlation with Bursa Malaysia's Shariah-compliant Finance sector, which indicates that Bursa Malaysia's Shariah-compliant Construction sector offer more portfolio diversification benefits in a mixed-asset portfolio. It should be noted that some of this may be attributable to the smaller size of the Shariah-compliant Finance sector compared to the other sectors assessed and the subsequent higher levels of co-movement of these sectors.

Table 3 Inter-correlation matrix: 2005 to 2014

	KLSE- CON	KLSE- PLN	KLSE- PRP	KLSE- TEC	KLSE- FIN
KLSECON	1.00				
KLSEPLN	0.80*	1.00			
KLSEPRP	0.93*	0.71*	1.00		
KLSETEC	0.70*	0.34	0.76*	1.00	
KLSEFIN	0.22	0.01	0.33	0.39	1.00

*: significant correlation (P<5%)

4.0 CONCLUSION

This study developed Shariah-complaint indices of listed construction companies and other selected sector filtered from Bursa Malaysia. With these new indices, it may assist investors to analyse and choose the best performed Shariah-compliant companies' to invest on.

As contribution is more on theory, this study shows and explains the best method for investor to find out the company performance for investment. It may help investor, individual or companies to choose the best sectors to invest especially in Shariah-compliant companies. Referring to this study, it is found that the best sector to invest during this time period (2005-2014) is Bursa Malaysia's Shariah-compliant Plantation sector (KLSEPLN).

Due to time constraint and limitation of access to DataStream to get the data, researchers only focus on five out of 13 sectors in Bursa Malaysia. These five sectors are related to construction industry which is Shariah-complaint. In addition, there are more than 50 companies in every sector to analyse. For future study, another 8 sector in Bursa Malaysia that is Shariah-compliant could also be considered in the portfolio.

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