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Sharīʿah Compliance Screening Moderating Effect on Risk and Return: The Malaysian Case of Capital Market

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ABSTRACT. The objective of this paper is to determine the moderating effect of Sharīʿah-compliant securities on the relationship between risk and return. The study uses panel regression, pooled ordinary least squares (OLS), random and fixed effects analysis. The sample size of the study consists of the 200 largest companies based on the list of market capitalization in 2019. In addition, the study uses a firm fixed effect and a two-stage generalized moments method (GMM) to test the robustness of the results for the years between 2010 and 2019 in Malaysian companies. The results show that Sharīʿah-compliant securities negatively affect the relationship between risk and stock returns. The results are robust, even after mitigating endogeneity issues regarding omitted variable bias and reverse causality. The author argues that Sharīʿah compliance acts as a mechanism to mitigate the relationship between risk and return. Policy makers such as the government could promote the benefits of Sharīʿah-compliant securities in the Islamic capital market (ICM) to mitigate the risk-return relationship. The government should promote ICM as a hub for Sharīʿah-compliant investment portfolios with this advantage to encourage more investors to choose ICM as their main preference for an internationally diversified portfolio. It is believed that previous research has not considered Sharīʿah compliance as a moderating factor in the relationship between risk and equity returns. This gap has been addressed in this study.

Keywords: Sharīʿah compliance, risk, stock return, Malaysian capital markets

JEL Classification: G00, G11
KAUJIE Classification: L24, L31, L41

1.0 INTRODUCTION

The risk-return ratio states that the potential return increases with increasing risk. Since higher risk is associated with higher stock returns, more methods of mitigating risky investments simultaneously provide better returns. For example, a diversification strategy can diversify the risk associated with investing assets or stock in a single company. An example of a diversification strategy is investing in different locations that have negative correlation or low correlation. For example, Harijto et al. (2018) find that investing within the Asian region does not benefit from diversification due to the positive correlation between the same regions. The study found that the benefit of diversification is present when investors invest in the non-Asian region. The diversification strategy is derived from another name for the adage "you should not put all your eggs in one basket" (Mishkin and Eakins, 2006) and shows how risky it is not to diversify your investments.

For Muslim investors, diversification is limited to stocks that conform to Sharia law according to their religious beliefs. In this situation, international diversification has become more important for Muslim investors as they have limited opportunities to diversify their investments in the domestic market (Bahlous and Yusof, 2014). The limited options for Muslim investors seem to be a disadvantage, at least when it comes to the possibility of diversification. Moreover, Bahlous and Yusof (2014) assume that a portfolio subject to restrictions, such as Sharīʿah compliance, may be less diversified and risk and return performance becomes suboptimal. However, recent empirical research has shown that Sharīʿah-compliant stocks are not invariably disadvantaged in terms of portfolio diversification and may even outperform non-Sharīʿah-compliant securities in certain circumstances (Kamil et al., 2021). In addition, Yusof et al (2010) found that active investors can benefit from diversification by investing in Sharīʿah and ethical funds simultaneously because they are negatively correlated.

The recent discovery of the performance of Sharīʿah-compliant companies relative to non-Sharīʿah-compliant companies and the benefits of diversification through investment in Sharīʿah-compliant securities raise the question of whether Sharīʿah-compliant securities are able to moderate risk and return performance. Sharīʿah-compliant companies have lower risk than their non-Sharīʿah-compliant counterparts (Farooq and Alahkam, 2016; Farooq and Pashayev, 2020). Moreover, theoretical arguments from social norm theory suggest that the social norm is against any funding of activities associated with human vices, such as those found in non-Sharīʿah-compliant firms (Hong and Kacperczyk, 2009). As a result, non-Sharīʿah-compliant securities should be considered less desirable and have a higher risk of legal liabilities, especially among norm-bound investors (Kamil et al., 2021). Therefore, to support the applicability of social norms theory in relation to the risk-reducing properties of Sharīʿah compliance, further attention should be paid to the extended empirical evidence on the relationship between risk and return. Although much attention has been paid to the risk and return of Sharīʿah-compliant securities, the empirical study examining the moderating effect of Sharīʿah-compliant securities on the relationship between risk and return, especially in the Malaysian context, has been neglected. This problem creates room or a gap for further research and clarification. Therefore, the objective of this study is to find out whether Sharīʿah compliance can serve as a mechanism to moderate the relationship between risk and return.

Unlike most other emerging markets, the Malaysian capital market includes both Sharīʿah and non-Sharīʿah compliant securities. This makes it ideally suited to study the moderating effect of Sharīʿah-compliant securities on the risk-return ratio.

Moreover, the Malaysia-based International Islamic Liquidity Management Corporation (IILM) started issuing short-term Sharīʿah-compliant instruments in 2010 to facilitate cross-border management of Islamic instruments (Hussain et al., 2016), and the rules for classifying Sharīʿah and non-Sharīʿah entities are becoming more stringent. In 2019, Sharīʿah-compliant companies account for about 80 percent of the companies listed on Bursa Malaysia (Bursa Malaysia, 2020), representing 40 percent of the total market capitalization in Malaysia. This shows that a significant portion of the market capitalization is dominated by Sharīʿah-compliant companies.

The selection of Malaysia not only provides a perfect setting to study the moderating effect of Sharīʿah compliance on the risk-return trade-off but was also motivated by the inconsistent risk-return trade-off in Malaysia. The trade-off between risk and return states that higher risk leads to higher return. However, empirical data from Malaysia suggest the opposite. For example, Foo and Weng (2014) found that the returns of Sharīʿah-compliant companies are higher than those of conventional stocks. This empirical evidence shows a contrary result and suggests low risk associated with Sharīʿah-compliant companies (Farooq and Alahkam, 2016; Farooq and Pashayev, 2020), which likely leads to low returns under the assumption of a trade-off between risk and return. Therefore, the contradictory results of previous empirical evidence on the relationship between risk and return, especially for Sharīʿah-compliant firms, need to be further investigated. Therefore, the study will examine the moderating effect of Sharīʿah compliance and whether Sharīʿah-compliant firms earn higher returns than non-Sharīʿah-compliant firms.

The remainder of this article is organized as follows: Section 2 contains the literature review and hypothesis development. Section 3 presents the research methodology used in the study and Section 4 presents the results found in the study. The study concludes with a conclusion in Section 5.

2.0 REVIEW OF LITERATURE

In the last decade, one of the most important innovations in finance is the exponential development of Islamic finance worldwide (Farooq and Pashayev, 2020). The importance of Islamic finance is evidenced by a significant number of religiously conscious investors among Muslims around the world (Farooq and Pashayev, 2020). In contrast, non-Sharīʿah-compliant securities, which some also refer to as conventional stocks, offer elements that prohibit a Muslim from investing. According to Kasim (2012), non-Sharīʿah-compliant (conventional) securities contain three elements, namely gharar (uncertainty), maisir (gambling), and ribā (usury), which are considered haram. Therefore, more Sharīʿah-compliant products are being introduced to meet the demand of Muslim investors.

To ensure that securities are properly separated from non-Sharīʿah securities, the Sharīʿah Advisory Council (SAC) has been entrusted with this task. For example, the Securities Commission Malaysia (SCM) has entrusted SAC to review Sharīʿah securities. Sharīʿah can be described as Islamic law derived from divine revelation (al-Quran) and the practice of the Prophet (al-Hadith) (Adam and Bakar, 2014). The screening method for SCM used by SAC includes two stages of a quantitative approach based on the financial ratios benchmark and the business activities benchmark. The business activities benchmark, which is prohibited under the first stage approach, includes the screening of business activities such as financial services based on ribā, gambling, manufacturing or selling non-halal products, etc. On the other hand, SAC considers the financial ratios benchmark based on the ratio of cash to total assets and debt to total assets to determine the financial ratios benchmark that complies with Sharīʿah guidelines.

The significant increase in demand for Sharīʿah-compliant securities has led to more studies being conducted to understand these types of securities (Farooq and AbdelBari, 2015; Farooq and Alahkam 2016). Although most of these studies focus on risk and return, none of them examine the moderating effect of Sharīʿah compliance on the relationship between risk and return. The relationship between risk and return has been debated for more than a decade. However, the inclusion of Sharīʿah compliance as a variable that can strengthen or weaken the relationship has not been considered in previous studies.

In addition to empirical evidence of the risk-reducing effect of Sharīʿah compliance, theory can also be used to explain the moderating effect of Sharīʿah compliance. Hong and Kacperczyk (2009) use social norms theory to explain that Sharīʿah compliance is not associated with higher risk because it is neglected by norm-oriented investors. Hong and Kacperczyk (2009) argue that social norms militate against financing companies associated with human vices. As a result, investors do not want to support themselves and others by buying shares in these companies. Anecdotal evidence can support this claim by showing that managers of institutions such as pension funds and endowments that exclude companies associated with "sinful" stocks such as alcohol, tobacco, and gambling from fund offerings make socially responsible investments (SRI) (Hong and Kacperczyk, 2009). Based on the above considerations, the social norm theory can also be applied to the framework of the study by suggesting that Sharīʿah-compliant securities, which are relatively less risky due to a better perception of the social norm, would reduce the risk-return ratio.

Empirically, according to Farooq and Alahkam (2016), Sharīʿah-compliant firms have lower returns than non-Sharīʿah-compliant firms. One of the reasons for the lower returns of Sharīʿah-compliant companies is due to the characteristics that put them at a disadvantage (Farooq and Alahkam, 2016). One of the examples of the disadvantages of Sharīʿah-compliant enterprises compared to non-Sharīʿah-compliant enterprises is that these types of enterprises do not encourage more debts compared to non-Sharīʿah-compliant enterprises. This debt can act as a disciplining mechanism for non-Sharīʿah compliant companies and therefore have a positive impact on company performance (Farooq and Alahkam, 2016). In addition, high debt and cash flow for non-Sharīʿah-compliant companies compared to Sharīʿah-compliant companies enable them to build a better business network and financing, as well as deploy more capital for any investment opportunities (Farooq and Alahkam, 2016). As a result, the business performance of non-Sharīʿah-compliant companies is better than that of Sharīʿah-compliant companies.

The empirical evidence to date suggests that Sharīʿah-compliant firms are less risky than their non-Sharīʿah-compliant counterparts. As a result, this could weaken the relationship between risk and return and act as a moderator. According to Farooq and Alahkam (2016), Sharīʿah-compliant companies have lower leverage than non-Sharīʿah-compliant companies. This results in the Sharīʿah-compliant firms having a lower risk of default than the non-Sharīʿah-compliant firms. In addition, a Sharīʿah-compliant company is subject to some restrictions on the industries or activities in which it may operate, such as the amount of debt it may take on and the amount of cash it may hold (Cheong, 2020). Durand et al. (2013) pointed out that "Saint" stocks that do not engage in business activities such as gambling, alcohol, firearms, military, or nuclear power have much lower risk. In addition, Hong and Kacperczyk (2009) believe that "sinful" stocks such as companies involved in gambling, alcohol, tobacco, and gaming have higher risk. This is because they are neglected by norm-bound investors and the higher risk of litigation due

to social norms. Therefore, banning non-Sharīʿah-compliant activities such as gambling, alcohol, tobacco, and firearms, as well as other Haram industries, should reduce the risk of Sharīʿah-compliant businesses (Cheong, 2020).

The relationship between risk and return, as well as the relationship between Sharīʿah compliance and risk and return mentioned in the previous literature, could lead to the conclusion that Sharīʿah compliance has the potential to mitigate the relationship between risk and return. Based on the relationship between these variables and the explanation provided by social norms theory, the study specifically suggests that Sharīʿah-compliant securities may act as a mechanism to reduce the risk associated with the relationship between risk and return. Therefore, based on the general reasoning, the study hypothesizes the following:

H1: Sharīʿah compliance screening moderates the relationship between risk and stock return.

2.1 Research frameworks

The study uses social norms theory to provide the research framework and explain the relationship between the variables tested. Social norms theory here refers to the norm constraint that investors have toward any financing of activities related to human vices (Hong and Kacperczyk, 2009). The norm constraint makes the non-Sharīʿah-compliant securities less desirable and carries a greater risk of legal liabilities (Kamil et al., 2021). The risk attributes associated with non-Sharīʿah-compliant securities make this theory ideal for understanding the moderating effect of Sharīʿah compliance on the risk-return relationship from a social norms perspective. Social norms theory dates back to Smith (1759), who likened society to a mirror reflecting norms and values and postulated that social experiences result from moral conscience. Smith's concept of morality later led to the development of social norms theory by Campbell (1971). As the theory progressed, it was taken up in more and more empirical studies, especially to explain how norm-bound investors view Sharīʿah-compliant securities (Hong and Kacperczyk, 2009).

It has long been argued that social norms theory affects a wide range of economic behaviors, such as work effort, consumption, collusion, contracts, and more (Durlauf and Blume, 2008; Elster, 1989). The implications of social norms theory for economic behavior were first discussed by Smith (1979) but have only received more attention since the two-part trend (Fehr and Gachter, 2000). The first part of the trend is that experimental economists provide considerable evidence that people tend to make economic decisions based on social preferences, which diverges from the material self-interest hypothesis (Fehr and Gachter, 2000). On the other hand, there is considerable evidence that these deviations have a significant impact on important economic issues (Gachter and Fehr, 1999). For example, recent empirical research has shown that social norms play an important role in influencing investment decisions (Leventis et al., 2013).

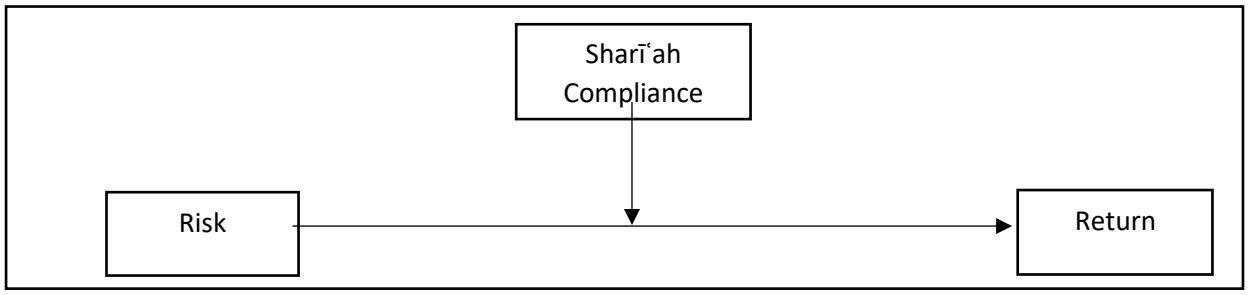
The major trend of applying social norms theory to investment decisions has drawn the attention of researchers to the incorporation of social norms theory in investment decisions, particularly with regard to Sharīʿah versus non-Sharīʿah compliance. One of the earliest applications of social norms theory in relation to Sharīʿah compliance versus non-Sharīʿah compliance states that social norms argue against financing a business that is associated with human vices (Hong and Kacperczyk, 2009). Using the same concept of social norms theory and supported by the empirical result, the study argues that social norms play an important role in influencing the investment decision because they can trigger the risk associated with any investment decision. Since investment portfolios, as found in non-Sharīʿah investments, are neglected by norm-oriented investors, this may increase the risk associated with non-Sharīʿah investments compared to Sharīʿah

investments. Therefore, the study critically highlights the importance of adequately capturing the elements of ethical or social activities as part of the screening process of Sharīʿah-compliant companies. Hassan et al. (2019) argues that activity screening for Sharīʿah-compliant companies does not directly capture a company's ethical and social responsibilities. Considering that the relationship between risk and return can mitigate the risk associated with the social norm (avoiding norm-bound investors), the regulator should critically capture the elements of ethical and social responsibility in its screening process to promote a better relationship between risk and return, especially in the ICM context.

The results of the study add to the existing knowledge of social norms theory by extending the concept of social norms theory to the relationship between risk and return. Based on the findings, the study postulates that Sharīʿah compliance not only mitigates risk by reducing leverage and refraining from risky business activities, but also is less risky because it is preferred by a larger group of people, especially investors bound by norms. The results are useful for practitioners, particularly investors who want to rethink their investment strategy, especially when social norms play a significant role in influencing investment risk and return. The results are also useful for managers of Sharīʿah-compliant companies. They know that their securities offer relatively similar risk and return performance as the non-Sharīʿah-compliant companies, but with additional benefits, particularly in terms of lower default risk and better perception by norm-bound investors. These characteristics should be promoted and highlighted by Sharīʿah-compliant companies in the ICM context to attract more investors from other Islamic countries to diversify their investment portfolio in ICM.

The following research framework, derived from social norms theory, served as a guide for conducting the analysis in this study:

Figure 1: Moderating Effect of Sharīʿah Compliance on Risk and Return Relationship



Source: Author's Own

3.0 RESEARCH METHODOLOGY

Before examining the model, the study performs several diagnostic tests to identify potential problems in the data. Diagnostic tests in this study include the Pearson correlation matrix and variance inflation factor (VIF) analysis to detect multicollinearity, the modified Wald statistic to detect heteroskedasticity, and the Wooldridge test for serial correlation to detect serial correlation (autocorrelation). The study also applies Winsors to all data in the top 1 and bottom 99 percent to mitigate potential outliers. To examine the model, the study uses pooled OLS analysis and random and fixed effects analysis.

3.1 Data sources and sample size

This paper shows that Sharīʿah-compliant securities play a crucial role in moderating the relationship between risk and stock returns. The study covers a period from 2010 to 2019. The study chooses this period because the report between Sharīʿah-compliant and non-

Sharīʿah-compliant securities (by securities regulators) is only available from 2010. The data in this study consists of the 200 largest companies based on their market capitalization in 2019. The reason for selecting the 200 largest companies based on their market capitalization was to ensure that they have significant capitalization in the stock market so that investors can achieve significant returns. However, due to some incomplete financial data, the study could only analyze 195 companies. The study chooses Malaysia because of its well-developed regulations to distinguish between Sharīʿah and non-Sharīʿah compliant companies.

Data for this study were collected from DataStream (http://surl.li/kcwqp) and the Securities Commission (https://www.sc.com.my) website.

The dependent variable in this study is stock return, while the independent variable in this study is historical market beta, which represents risk. The reason for choosing historical beta over beta is that the beta value in DataStream does not vary over time, i.e., beta provides a constant value for the same company over time, which is not appropriate for the purpose of the study. The reason for choosing historical beta over other risk measures is that historical beta or beta can be considered a useful risk measure, especially for portfolio managers to make optimal investment decisions (Tang and Shum, 2003). The original beta formula can be retrieved via WallStreetMojo.com (http://surl.li/kcwsg) is expressed as follows:

$$\beta_i = \frac{COV\ (r_i, r_m)}{Var\ (r_m)}$$

Where:

β_i=market beta of asset i

Cov=Covariance

Var=Variance

r_m= Average expected return on the market

r_i= Expected return on an asset i

However, the study uses historic beta value which directly extracted from DataStream using the following expression:

$$Historic\ Beta = REGB\#(LN\#(X(LI)/LAG\#(X(LI),1M)), LN\#(X/LAG\#(X,1M)),60M)$$

The moderating variables chosen in this study are from the websites of securities regulators, which take the value of 1 if the securities are considered Sharīʿah-compliant and 0 if not. The other control variables in this study include firm size expressed by the natural logarithm of total assets, firm profitability expressed by ROE, firm leverage, free cash flow per share, firm value expressed by Tobin's Q, and dividend policy expressed by dividend yield (DY).

The dependent variable used in this study is the stock price yield. To calculate the stock price return, the study uses the percentage change in the return index over the year according to the following formula:

$$Ret_{i,t} = RI_{i,t} - RI_{i,t-1} / RI_{i,t-1} \times 100$$

Ret_{it}, refers to stock price return, RI_{it} refers to the current year return index, and RI_{it-1} refers to previous year's return index. The percentage change in the return index over the period of time also can be obtained from DataStream using the following expression:

$$Percentage\ change\ in\ return\ index = PCH\#(X(RI),1Y)$$

Where PCH# represents the percentage change of, (X(RI)) represents the return index of the series and 1Y represents one year. The analysis used in this study is on an annual basis.

3.2 Measurements

Table 1: present each construct definition used in the study

Constructs	Represent by	Proxy variables
Return	Ret	Percentage change in return index
Risk	Hbeta	Historic Market Beta
Sharīʿah Compliant	SC	Takes the value of "1" if firm listed as Sharīʿah

firm		compliance and "0" if otherwise.
Firm size	Size	Natural logarithm of total assets
Profitability	ROE	Net Sales / Market Value
Leverage	Debt	Total liabilities/ Total assets
Free cash flow	FCF	Free cash flow per share
Investment Opportunity	Tobin 's Q	Market value of asset/ replacement value of assets
Dividend	DY	Dividend yield

Source: Author's Own

To examine the moderating effect of Sharīʿah compliance on the relationship between risk and return as shown in Figure 1, the study used the following model specification, the definition of which can be found in Table 1:

$$Stock\ price\ return_{i,t} = \alpha + \beta_1\ Beta_{i,t} + \beta_2\ SC_{i,t} + \beta_1\ Beta_{i,t} * SC_{i,t} + Size_{i,t} + ROE_{i,t} + Debt_{i,t} + FCF_{i,t} + Tobin's\ Q_{i,t} + DY_{i,t} + \varepsilon_{i,t} \quad \text{(H1)}$$

4.0 RESULT

Table 2 shows the descriptive statistics of the variables tested for the moderating effect of Sharīʿah compliance on the relationship between risk and return. From the table 2, the highest mean value is 20.13 followed by stock return, size, ROE, DY, Tobin's Q, Hbeta and FCF per share with values of 15.65, 14.26, 12.20, 2.73, 1.73, 1.05 and 0.04 respectively. Stock return has the highest standard deviation of 42.93, followed by ROE, leverage, DY, size, Tobin's Q, Hbeta and FCF per share with values of 17.41, 16.60, 2.11, 1.63, 1.42, 0.68 and 0.22. Table 2 also shows the minimum and maximum values for each variable, with stock return ranging from -53.97 to 210.49, Hbeta from -0.36 to 3.33, size from 9.89 to 19.00, ROE from -44.09 to 89.72, leverage from 0 to 61.84, FCF per share from -0.84 to 0.85, Tobin's Q from 0.54 to 8.33, and DY from 0 to 9.75. The study also includes a variance inflation factor (VIF) analysis to uncover possible multicollinearity. As evidenced in Table 2, no single value exceeds 4, indicating that the data are free of multicollinearity.

Table 2: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	VIF
Stock Return	1787	15.65	42.93	-53.97	210.49	N/A
HBeta	1787	1.05	0.68	-0.36	3.33	1.08
Size	1787	14.26	1.63	9.89	19.00	1.31
ROE	1787	12.20	17.41	-44.09	89.72	1.99
Leverage	1787	20.13	16.60	0.00	61.84	1.38
FCF per share	1787	0.04	0.22	-0.84	0.85	1.05
Tobin's Q	1787	1.73	1.42	0.54	8.33	1.96
DY	1787	2.73	2.11	0.00	9.75	1.13

***Notes**: N/A refer to not available

Source: Author's Own

Table 3shows the Pearson correlation matrix on the moderating effect of Sharīʿah compliance on the relationship between risk and return. As you can see, no value in the table 3is above the value of 0.50, with the exception of the correlation of ROE with Tobin's Q. This value could indicate a multicollinearity problem. However, the study does not exclude ROE from the analysis (except in the table 9 - alternative analysis), which may lead to a loss of valuable information. The other Pearson correlation results suggest that the data are free of multicollinearity.

Variables	SR	HBeta	SC	Size	ROE	Leverage	FCF	Tobin's Q	DY
SR	1								
HBeta	-0.0426*	1							
SC	0.0520**	0.038	1						
Size	-0.1930***	0.1333***	-0.0892***	1					
ROE	0.2133***	-0.1730***	0.0328	-0.0913***	1				
Leverage	-0.1076***	0.1266***	-0.1785***	0.4551***	-0.1741***	1			
FCF	0.0982***	-0.0139	-0.0035	0.0197	0.0934***	-0.1052***	1		
Tobin's Q	0.1726***	-0.1787***	0.0213	-0.1541***	0.6593***	-0.2035***	-0.0408*	1	
DY	-0.0960***	-0.1459***	0.0334	-0.0214	0.2078***	-0.1488***	0.0268	0.0002	1

Table 3: Pearson correlation Matrix

***Denotes significance at the 10% level.**
**** Denote significance at the 5% level.**
***** Denote significance at the 1% level.**

Source: Author's Own

The result of the study's analysis is presented in Table 4 using Models I, II, and III. As shown, the modified Wald statistic tests for heteroskedasticity and the Wooldridge test for serial correlation tests for autocorrelation. The results (see Appendix: Table 6 and Table7) show that heteroscedasticity and serial correlation (autocorrelation) are present in the data. Therefore, the study uses a robust standard error calculation to mitigate this problem in the pooled OLS analysis, random effects analysis and fixed effects analysis. Before examining the pooled OLS, random and fixed effects, the study uses the Hausman test to determine the best fitting model. The result (see Appendix: Table 8) shows that the fixed effects model fits better, yet the study shows both results (model II and III) for comparison purposes. Based on Table 4, Model I (pooled OLS) show that the moderating effect of Sharīʿah compliance on the relationship between risk and return through the interaction term "HBeta* SC" has a significant negative relationship with a t-statistic of -2.33, which is significant at the 10 percent level. The remaining control variables tested in this study, with the exception of leverage and Tobin's Q, show a significant relationship with the dependent variables. The study also controls for the fixed effect of year and industry by including dummy variables for industry and year.

In the panel analysis table 4 (model II and III), i.e., random and fixed effect, the study also uses robust standard errors to mitigate serial correlation (autocorrelation) and heteroskedasticity. The results of the random and fixed effects analysis are shown in Table 4, the II and III models. Based on the model II, the moderating effect represented by the interaction term "HBeta* SC" shows a significant negative moderating effect with a z-value of -2.32. As for the fixed effect through the model III, the moderating effect represented by the interaction term "HBeta* SC" shows a significant negative moderating effect with a t-value of -3.17. The analysis of the random and fixed effects shows significance levels of 10 and 5 percent, respectively. The remaining control variables show significance at the 1, 5, and 10 percent levels, except for leverage and Tobin's Q (only through the model II), which show an insignificant relationship with the dependent variables.

The result in this section (Table 4) supports the first hypothesis of the study, namely that screening for Sharīʿah compliance moderates the relationship between risk and return. Moreover, the study also supports previous

studies that argue the property of Sharīʿah-compliant securities to significantly mitigate (moderate) risk. For example, Farooq and Alahkam (2016) and Farooq and Pashayev (2020) empirically demonstrated that Sharīʿah-compliant firms have lower risk than non-Sharīʿah-compliant firms. In addition, Durand et al. (2013) postulated that 'saint' stocks have lower risk because they do not engage in non-Sharīʿah-compliant activities. Albaity and Ahmad (2008) also empirically demonstrated that Sharīʿah-compliant companies have lower market risk. Finally, Hooy and Ali (2017) posited that the screening criteria for Sharīʿah-compliant firms, which exclude financial firms and many other firms considered risky, explain why Sharīʿah-compliant firms are relatively less risky. Support from previous empirical studies on the property of Sharīʿah-compliance to significantly (moderately) mitigate risk strengthens the argument from the perspective of social norm theory on the ability of Sharīʿah-compliant securities to act as a mechanism to mitigate the relationship between risk and return. The social norm investor who cares about a company's operations would be less inclined to participate or invest in a company that is not Sharīʿah-compliant. In contrast, investors who care about a firm's business operations would view Sharīʿah compliance as a better investment opportunity because "saint" business operations reduce investors' negative perceptions simultaneously transferring the risk associated with investing in Sharīʿah-compliant securities. Furthermore, the principle of risk in Sharīʿah-compliant investment or any Islamic financial product is based on risk sharing instead of risk transfer (Al-Maddah, 2017), which in turn should mitigate the Sharīʿah-compliant businesses risk. Thus, this may explain why Sharīʿah compliance moderates the risk and return relationship.

Table IV: Analysis result (1st Hypothesis)

Regressors	**Model I: Pooled OLS (RSE)**		**Model II**: Random Effect (RSE)		**Model III**: Fixed Effect (RSE)	
	Regression coefficient	t-statistics	Regression coefficient	z-statistics	Regression coefficient	t-statistics
Constant	77.3842	5.85***	79.92188	8.55***	213.3837	5.71***
$Beta_{i,t}$	8.041751	2.08*	7.709789	2.34*	10.75528	2.23*
$SC_{i,t}$	10.11138	2.19*	10.66846	2.55*	19.08629	3.00**
$HBeta * SC_{i,t}$	-10.69543	-2.33*	-9.322851	-2.32*	-17.32101	-3.17**
$Size_{i,t}$	-3.60841	-5.05***	-5.017329	-8.40***	-15.50477	-5.73***
$ROE_{i,t}$	0.5014345	4.09***	0.556222	3.43**	0.7667513	4.47***
$Leverage_{I,t}$	-0.010164	-0.15	0.0037473	0.05	0.0353105	0.23
$FCF_{i,t}$	14.12705	3.48**	16.35019	3.76**	16.19108	3.19**
$Tobin's\ Q_{i,t}$	0.9010771	0.6	-0.0266318	-0.02	8.201492	3.08**
$DY_{i,t}$	-2.941064	-5.87***	-3.231852	-6.09***	-4.869711	-5.80***
Industries	No		No		No	
Year	No		No		No	
R-Squared	0.1144		0.1092		0.1324	

***Denotes significance at the 10% level.**
**** Denote significance at the 5% level.**
***** Denote significance at the 1% level.**

Source: Author's Own

4.1 Additional test

The results presented in Table 4 may be affected by endogeneity concerns regarding omitted variable bias and reverse causality. To mitigate these problems, the study follows Jiang et al. (2017), Bakri et al. (2020), and Bakri (2021) in using the firm fixed effect to mitigate the omitted variable problems. The result of the fixed firm effect analysis is shown in Table 5, model IV. Based on Table 5, model IV, the moderating effect of Sharīʿah compliance is represented by the interaction term "HBeta* SC". The result shows that the interaction term was statistically significant with a t-statistic value of -3.58, indicating a significant negative effect at 5 percent. The direct relationship between risk and return is also significant at the 10 percent level with a t-statistic value of 2.38, indicating a significant positive relationship between risk and return under the influence of Sharīʿah compliance as control and moderating variables. The other control variables, except leverage, also show a significant relationship with stock returns. The t-statistics for size, ROE, FCF, Tobin's Q, and DY are -6.05, 7.59, 3.17, 5.14, and -6.43, respectively. Leverage, on the other hand, shows no significant results.

The results of the table 4 may be affected not only by omitted variables but also by reverse causality. To address these concerns, the study uses a two-stage system GMM following Ullah et al. (2018). The result of the two-stage GMM is presented in Table 5, in both Model V and VI. Based on Table 5, Model V, the results show a consistent negative moderating effect evidenced by the interaction term "HBeta* SC" with a t-statistic value of -3.43, indicating a significant level of 5 percent. In this model, the direct relationship between risk and stock returns is also significant at the 5 percent level, as indicated by the t-statistic value of 3.40. The remaining control variables also have a significant value, except for the lagged dependent variable and FCF, with a t-statistic value of less than 1.96.

The results presented in Table 5, obtained with Model V, may lead to biased standard errors, as the analysis shows. Therefore, the study re-estimates the model using the calculation of the robust standard error. The result of the calculation of the robust standard error is shown in Table 5 in the model VI. Even after considering the calculation of the robust standard error in the two-stage GMM, the result remains consistent with the hypothesis of the study. The result presented in model VI is consistent with the hypothesis of the study and shows a significant t-statistic value of -2.03, indicating significance at a 10 percent level. The direct relationship between risk and stock return is also significant at a 10 percent level with a t-value of 2.11. The remaining control variables in this analysis are all significant except for the lagged dependent variables SC and FCF, which have a t-statistic value of less than 1.96.

The persistent significant negative effect of the interaction term, through the endogeneity test for omitted variable bias and reverse causality, shows that the results are robust even after controlling for endogeneity problems. The results are consistent with the first hypothesis of the study. The results also indirectly consistent with previous empirical evidence that shows the relationship between risk and return is lower for Sharīʿah-compliant firms than for non-Sharīʿah-compliant firms (Farooq and Alahkam, 2016; Cheong, 2020). Additionally, the empirical finding of this study is also consistent with previous empirical evidence that demonstrates Sharīʿah-compliant portfolio or investment is generally less risky than the conventional or non-Sharīʿah-compliant investment counterpart (Ashraf and Khawaja, 2016). The consistency with previous discoveries indicates a strong mechanism of Sharīʿah compliance in mitigating risk not just in different regions of investment but also in the Malaysian context of capital markets.

Table V: Endogeneity Test

	Model IV: Firm Fixed Effect			**Model V**: Twostep system GMM		**Model VI**: Twostep system GMM (robust standard errors)	
Regressors	Regression coefficient	t-statistics	Regressors	Regression coefficient	z-statistics	Regression coefficient	z-statistics
Constant	213.3837	5.83***	**Constant**	284.4279	5.75***	284.4279	2.80**
$Beta_{i,t}$	10.75528	2.38*	$L.SR_{i,t}$	0.0021408	0.08	0.0021408	0.04
$SC_{i,t}$	19.08629	2.81**	$Beta_{i,t}$	23.76179	3.40**	23.76179	2.11*
$HBeta * SC_{i,t}$	-17.32101	-3.58**	$SC_{i,t}$	23.19701	2.71**	23.19701	1.80
$Size_{i,t}$	-15.50477	-6.05***	$Beta * SC_{i,t}$	-26.29739	-3.43**	-26.2974	-2.03*
$ROE_{i,t}$	0.7667513	7.59***	$Size_{i,t}$	-22.6932	-6.56***	-22.6932	-3.23**
$Leverage_{I,t}$	0.0353105	0.26	$ROE_{i,t}$	9.57E-01	6.16***	9.57E-01	3.40**
$FCF_{i,t}$	16.19108	3.17**	$Leverage_{I,t}$	0.8122262	3.72**	8.12E-01	2.28*
$Tobin's\ Q_{i,t}$	8.201492	5.14***	$FCF_{i,t}$	4.78E+00	0.90	4.779776	0.58
$DY_{i,t}$	-4.869711	-6.43***	$Tobin's\ Q_{i,t}$	17.70669	5.66***	17.70669	2.60**
			$DY_{i,t}$	-6.715677	-6.67***	-6.71568	-4.04***
Industries	No			No		No	
Year	No			No		No	
R-Squared	0.0806			N/A		N/A	

***Denotes significance at the 10% level.**
**** Denote significance at the 5% level.**
***** Denote significance at the 1% level.**

Source: Author's Own

5.0 CONCLUSION

This paper examines the moderating effect of Sharīʿah-compliant securities on the relationship between risk and return in Malaysian firms. Using a pooled OLS, random-effects, and fixed-effects analysis for the period from 2010 to 2019, the results show that Sharīʿah-compliant securities negatively affect the relationship between risk and stock returns. The results show that Sharīʿah compliance acts as a mechanism that weakens the relationship between risk and return by negatively moderating the relationship between the variables. Moreover, the risk of default is lower for Sharīʿah-compliant securities because they do not engage in activities that are considered prohibited (non-Sharīʿah compliance) and tend to be riskier. The result proves that the social norm theory leads to a negative perception of companies that are not Sharīʿah compliant and increases their risk, which negatively affects the relationship between risk and return. The relationship between risk and return is not only critical for the manager, but also for many investors. An investor might choose Sharīʿah-compliant securities, which are technically less risky (lower risk of default due to lower leverage). Based on the findings, this study contributes in two ways. First, it adds to the literature on the relationship between risk and stock returns in Malaysia. Since previous studies focused mainly on developed markets, this study fills the gap by examining the Malaysian market context. The study highlights the importance of the relationship between risk and return, especially for managers looking to invest in an ICM or Malaysia. Additionally, since the finding also reveal that Sharīʿah compliance mitigates the risk and return relationship, Muslims should fully utilize the investment benefit gained from Sharīʿah-compliant investment by starting to invest especially in Malaysian capital markets or any ICM in general. Second, this study also examines the impact of Sharīʿah compliance on the relationship between risk and stock returns. This study is the first to introduce Sharīʿah compliance as a moderating factor for the relationship between risk and stock return, which adds value to the existing knowledge on the relationship between risk and return. In short, this study confirms the information from previous literature highlighting the importance of Sharīʿah-compliant securities in moderating the relationship between risk and return through social norms theory. Like the other previous studies, this study has some limitations. First, the data are limited to the Malaysian market only. Therefore, the results cannot be extrapolated to other markets, especially developed markets. Second, the study only focuses on examining one moderating factor. Future research could examine the impact of governance mechanisms that can mitigate the risk associated with the firm's investments. Despite the limitations, the study uncovered the moderating effect of Sharīʿah compliance on the relationship between risk and return, which could provide new insights for investment strategy, especially for Muslim and risk-averse investors.

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APPENDIX

Table VI: Modified Wald Test

Diagnostic Test	Modified Wald test for groupwise heteroscedasticity in fixed effect regression model
Result	H0: sigma(i)^2 = sigma^2 for all chi2 (195) = 8.8e+33 Prob>chi2 = 0.0000
Interpretation	Based on the above result, we reject null (since p-value smaller than 0.05) and conclude that there is a heteroscedasticity.

Source: Author's Own

Table VII: Wooldridge Serial Correlation Test

Diagnostic Test	Wooldridge serial correlation test
Result	Wooldridge test for autocorrelation in panel data H0: no first-order autocorrelation F(1, 189) = 11.522 Prob > F = 0.0008
Interpretation	The above test indicates that we reject the null hypothesis (since the p-value is less than 0.05) and conclude the data does have first-order autocorrelation.

Source: Author's Own

Table VIII: Hausman Test

Hausman Test (Random vs Fixed Effect Model)
Consistent under Ho and Ha; obtained from xtreg B = inconsistent under Ha, efficient under Ho; obtained from xtreg **Test**: Ho: difference in coefficients not systematic chi2(9) = (b-B)'[(V_b-V_B)^(-1)](b-B) 95.38 Prob>chi2 = 0.0000

Source: Author's Own

Table IX: Alternative analysis (1st Hypothesis)

Regressors	**Model I: Pooled OLS (RSE)**		**Model II**: Random Effect (RSE)		**Model III**: Fixed Effect (RSE)	
	Regression coefficient	t-statistics	Regression coefficient	z-statistics	Regression coefficient	t-statistics
Constant	69.74917	5.18***	70.96798	7.80***	207.2146	5.05***
$Beta_{i,t}$	8.501839	2.21*	8.369495	2.73**	11.57568	2.43*
$SC_{i,t}$	13.05227	2.76**	13.32524	3.37**	21.28825	3.01**
$Beta * SC_{i,t}$	-11.80923	-2.56*	-10.78617	-2.78**	-18.78399	-3.42**
$Size_{i,t}$	-3.390316	-4.71***	-4.740857	-7.98***	-14.59986	-5.05***
$Leverage_{I,t}$	-0.0222154	-0.32	-0.007955	-0.11	-0.1646435	-1.08
$FCF_{i,t}$	18.72778	4.60***	21.40131	4.57***	20.24152	3.73**
$Tobin's\ Q_{i,t}$	5.019536	6.04***	4.473543	4.76***	11.24646	4.97**
$DY_{i,t}$	-2.220489	-4.69***	-2.321139	-4.84***	-4.924902	-5.87***
Industries	No		No		No	
Year	No		No		No	
R-Squared	0.0886		0.0890		0.0811	

***Denotes significance at the 10% level.**
**** Denote significance at the 5% level.**
***** Denote significance at the 1% level.**

Source: Author's Own

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فحص التأثير المعتدل للامتثال للشريعة الإسلامية على الخطر والعائد: دراسة حالة سوق رأس المال الماليزي

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المستخلص. الهدف من هذا البحث هو تحديد الأثر الوسيط للأوراق المالية المتوافقة مع أحكام الشريعة الإسلامية على العلاقة بين المخاطرة والعائد. تستخدم الدراسة نموذج انحدار اللوحة (GMM)، والمربعات الصغرى العادية المجمعة (OLS)، وتحليل التأثيرات العشوائية والثابتة. يتكون حجم عينة الدراسة من أكبر 200 شركة بناءً على قائمة القيمة السوقية لعام 2019 . بالإضافة إلى ذلك، تستخدم الدراسة تأثير ثابت وطريقة لحظات معممة من مرحلتين (GMM) لاختبار متانة النتائج للسنوات بين 2010 و 2019 في الشركات الماليزية. بينت النتائج أن الأوراق المالية المتوافقة مع أحكام الشريعة تؤثر سلبًا على العلاقة بين المخاطر وعوائد الأسهم. وقد كانت النتائج قوية، حتى بعد التخفيف من مشاكل التجانس فيما يتعلق بحذف التحيز المتغير والسببية العكسية. يجادل المؤلفون بأن الامتثال للشريعة يعمل كآلية لتخفيف العلاقة بين المخاطر والعائد. يمكن لصانعي السياسات مثل الحكومة الترويج لمنافع الأوراق المالية المتوافقة مع أحكام الشريعة الإسلامية في سوق مال إسلامي (ICM) للتخفيف من الآثار السلبية لعلاقة المخاطر بالعائد. يجب على الحكومة الترويج لسوق مال إسلامي كمركز للمحافظ الاستثمارية المتوافقة مع أحكام الشريعة الإسلامية لتشجيع المزيد من المستثمرين على اختيار هذا المركز كميزة نسبية رئيسية للمستثمرين لتشكيل محفظة مالية متنوعة دوليًا. أظهرت الدراسة أن الأبحاث السابقة لم تعتبر، بما فيه الكفاية، الامتثال للشريعة عاملاً مؤثراً باعتدال في العلاقة بين المخاطر وعوائد حقوق الملكية. وهذا ما حاولت الدراسة التعرض له.

الكلمات الدَّالة: التوافق الشرعي، الخطر، العائد على السهم، سوق المال الماليزي

تصنيف JEL: G11 ، G00

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