Free Cash Flow, Agency Cost and Dividend Policy of Sharia-Compliant and Non-Sharia-Compliant firms

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ABSTRACT

The objective of this study is to examine how sharia-compliance mitigates the agency cost of free cash flow by using dividend policy in the context of firms listed on Gulf Co-operation Council (GCC) country stock exchanges. The study applies a panel regression to a data set composed of 1242 observations from 207 companies during the period 2009-2014. The results show that sharia-compliant firms not only have higher payout ratios but also have higher likelihood to pay dividends. Moreover, consistent with avoidance of the free cash flow problem, the results reveal that the dividend payments of sharia-compliant companies respond more strongly to free cash flow than do the dividend payments of non-sharia-compliant companies. Likewise, Sharia-compliant companies are likely to pay out more of their free cash flow than non-sharia-compliant companies, which can prevent managers from misusing the resources in ways that may not maximize shareholder wealth.

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INTRODUCTION

In his seminal work, Jensen (1986) defines free cash flow as cash flow in excess of that required to fund all projects that have positive net present value when discounted at the relevant cost of capital. The free cash flow theory developed by the author states that companies with substantial cash flow and poor investment opportunities always tend to face conflicts of interest between shareholders and managers. According to Labhane and Mahakud (2016), the excess amount of free cash flow in the hands of managers increases the agency cost as they are free to use these financial reserves for their own interests. Excessive free cash flow available to managers leads to overinvestment due to investment in projects with negative net present value (Jensen, 1986). To avoid any wasteful expenditure, shareholders of such firms monitor the activities of managers. These monitoring activities increase the firm cost of monitoring and hence increase the agency cost. Apart from using free cash flow to invest in projects with negative net present value, Kadioglu and Yilmaz (2017) suggest that managers tend to make unnecessary expenditures aligned with their personal interests.

One way to reduce the free cash flow problem is to pay out more of the free cash flow as dividends (Fairchild, 2010). Distributing cash to shareholders reduces the chance that the managers may use the available resources inappropriately. According to Jensen (1986) and Lang and Litzenberger (1989), dividend payouts can be seen as means to reduce the free cash flow that managers can use to their own discretion. Similarly, Khan *et al*. (2013) suggest that paying dividend clearly reduces the agency cost by eliminating the possibility that substantial cash flow will be used by insiders for their own interests. Kadioglu and Yilmaz (2017) argue that dividends help check managers and create a discipline mechanism without the direct intervention of shareholders. Another argument suggested by the financial literature is that payouts lower retained earnings and hence force managers to access the external capital markets to finance new projects (Easterbrook, 1984; Jensen, 1986; La Porta *et al*., 2000; DeAngelo *et al*., 2006; Denis and Osobov, 2008; Guizani, 2014).To the extent that external financial markets play a disciplining and monitoring role, they presumably reduce managers' incentives to engage in wasteful consumptions.

Literature on free cash flow and dividend policy has been documented in many different ways. Most studies have examined the free cash flow hypothesis (Wu, 2004; Byrd, 2010; Utami *et al*., 2011; Cheng *et al*., 2014, Labhane and Mahakud, 2016). But, to the best of our knowledge, there is no study on the effect of sharia-compliance on both dividend policy and the relationship between free cash flow and dividend policy. The only attempt that evoked the issue of the relationship between sharia-compliance and dividend policy is that of Farooq and Tbeur (2013). Nevertheless, this study addresses the effect of sharia-compliance on dividend policy without addressing the free cash flow hypothesis in the context of sharia-compliant firms.

Recent evidence suggests that the financial market around the world experienced exceptional growth in Islamic finance. Robinson (2007), for instance, reports annual growth rate of more than 30 per cent for sharia-compliant assets during the last few years. Given the importance of sharia-compliant products/assets, this paper aims to provide empirical evidence on dividend policy of sharia-compliant firms. Also, it tests the free cash flow hypothesis by examining the effect of sharia-compliance on the free cash flow-dividend relationship. This

is mainly because sharia places certain constraints on cash holding of the firm, which is one of the main determinants of dividend payouts. For instance, the Dow Jones Islamic Index imposes five financial tests. Among these tests, one is that sharia-compliant firms must have a ratio of cash and interest-bearing securities to market capitalization less than 33%. About that, Siddiqui (2007) suggests that from a prudent investor's perspective, the cash and interest-bearing securities to market-capitalization screen may provide an interesting insight into management's use of cash for the growth potential of the company. We argue that tightening of cash and interest-bearing securities will force the company to limit free cash flow, which may encourage dividend payout.

Another requirement for a firm to be sharia-compliant is to have a leverage which does not exceed 33% of market capitalization. Prior literature documents a negative relationship between leverage and dividend payout. For instance, Rozeff (1982) and Aivazian *et al.* (2003) show that firms with higher financial leverage choose lower dividend payout to lower their cost of external financing.

The proposed study presents several originalities. First, while most of the works are carried out on developed markets, this research focuses on emerging markets. Second, to our knowledge, this paper is the first study to examine dividend policies of sharia and non-sharia compliant firms in the GCC countries. Finally, this research highlights the issue of efficient management of substantial funds. For this purpose, the proposed study attempts to provide elements of response to the impact of sharia-compliance on the allocation of free cash flow. This has implications for investors' investment decisions.

Using a large dataset from firms listed on Gulf Co-operation Council (GCC) country stock exchanges, we show that sharia-compliant firms not only have higher payout ratios but also have higher likelihood to pay dividends. This result can be explained by the specific characteristics of firms compliant to sharia. For instance, these firms have low level of debt and low level of cash. Therefore, they have higher chances to pay dividends than otherwise similar firms with high level of debt and high level of cash (Omran and Pointon, 2004; Skinner and Soltes, 2011). Additionally, consistent with avoidance of the free cash flow problem, we find that the dividend payments of sharia-compliant companies respond more strongly to free cash flow than do the dividend payments of non-sharia-compliant companies. Sharia-compliant companies are likely to pay out more of their free cash flow than non-sharia-compliant companies, which can prevent managers from misusing the resources in ways that may not maximize shareholder wealth.

Overall, our results have implications for investment decision in GCC countries. Higher dividend payouts, higher likelihood of paying dividend and rigorous free cash flow management are indications that sharia-compliant firms are better governed than non-sharia-compliant firms.

The remainder of the paper is organized as follows. Section 2 presents an in-depth literature review on dividend policy and discusses the research hypotheses. Section 3 describes the data and methodology. The results and the associated discussions are presented in Section 4. Conclusions and implications are presented in Section 5.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Sharia compliance and dividend policy

Sharia-compliant firms possess certain financial characteristics that can adversely affect dividend policy. One of the requirements for a firm to be sharia-compliant is to have low leverage. Prior literature documents that leverage is an important determinant of dividend policies adopted by firms. Dividend policy is directly connected with the theories of capital structure. The transaction cost theory of dividend suggests that, due to the costs associated with raising external finance, firms should use retained earnings to the extent possible. Firms pay dividend when this does not result in shortage of internal funds that are required for investment. Several studies show that firms with high leverage pay lower dividends than other firms. They argue that firms pay lower dividends in order to avoid higher cost of raising external capital. For instance, Rozeff (1982) suggests that firms that have greater dependency on external finance would maximize shareholder wealth by adopting lower payout policies. According to the author, high levels of leverage imply high fixed costs that the firm has to ensure it can meet. This implies that highly leveraged firms should be associated with conservative payout policies.

While the transaction cost theory of dividend proposes that dividend payments lead to the raising of costly external finance, Easterbrook (1984) argues that it is this process which reduces agency problems. The payment of dividends and the subsequent raising of external finance may keep firms in the capital market, where monitoring of managers is available at lower cost. According to the author, dividend puts the management under inspection by security exchange, investment banks and capital suppliers. Thus, if the firm is continuously in the market for new capital, the less serious the agency costs happened.

Other studies suggest that dividend and debt serve as alternative devices to reduce the agency problem associated with free cash flow (Jensen, 1986; Crutchley and Hansen, 1989). Paying out dividends and the payment of interest upon debts are two alternatives for reducing free cash flow in the hands of managers as well as reducing agency cost. Because levered firms have a greater commitment to their creditors, the substantial funds available to managers would be reduced.

In the context of GCC firms, Al-Kuwari (2009) finds a negative relationship between leverage and dividend payout ratio. According to the author, the reason for this negative association is that highly levered firms carry a large burden of transaction costs from external financing. In this case, firms need to maintain their internal source of funds to meet their duties, instead of distributing the available cash to shareholders as dividends.

Vo and Nguyen (2014) provide strong support for agency theory, which suggests that there is a negative relationship between leverage and dividend. In term of agency perspective, leverage and dividend policies can be used substitutes as internal mechanisms in reducing agency conflicts.

Labhane and Mahakud (2016) also reach similar conclusions. They find a negative relationship between financial leverage and dividend payout. The author interpret this result as broadly consistent with the signaling, pecking order and agency cost theories associated with the corporate dividend policy.

From the above discussion of financial characteristics of sharia-compliant firms, being low on leverage, and the importance of financial constraints in determining dividend policy, we propose the following hypotheses:

H1a: sharia-compliant firms have higher dividend payout than their non-sharia-compliant counterparts.

H1b: sharia-compliant firms have higher probability to pay dividends than their non-sharia-compliant counterparts.

Sharia compliance and free cash flow – dividend relationship

Another requirement for a firm to be sharia-compliant is to have low cash, an important determinant of dividend policy. Companies having substantial free cash flows are subject to agency conflicts between manager and shareholders. According to the free cash flow hypothesis, managers are able to manipulate free cash flow under their control. Mangers have the ability to use the remaining funds for their own benefits rather than to fulfill the interests of shareholders. By paying more dividends, firms reduce free cash under the control of manager that can be used for their own interests. Most studies have been conducted to see the relationship between the agency costs of free cash flows and dividend. Alli *et al*. (1993), for example, document that firms with high amount of excess cash are more likely to pay dividends than firms with cash shortage. Byrd (2010) argues that firms that generate cash flow beyond that required to finance all positive net present value projects are particularly prone to agency problems. The empirical evidence supports the Jensen argument that the debt and payout policy reduce the free cash flow problem. Khan *et al*. (2013), Cheng *et al*. (2014) and Kadioglu and Yilmaz (2017) reach similar conclusions. According to these researchers, dividend payments divert the motivation of managers to use free cash flow for their own interests as little cash is available to managers for discretionary purposes.

Consistent with above findings, we propose the following hypothesis:

H2a: sharia-compliance positively affects the free cash flow – dividend payout relationship.

H2b: sharia-compliance positively affects the relationship between the free cash flow and the decision to pay dividend.

DATA DESCRIPTION AND METHODOLOGY

The Screening Process

We follow the classification provided by the Dow Jones to categorize firms as sharia-compliant or non-sharia-compliant. The process used by the Dow Jones consists of two steps. The first step screens the core business of companies for compliance. We manually check the business description for each company and exclude those whose core business activities are non-permissible according to Islamic law (firms dealing in pork-related products, alcohol, arms manufacturing, tobacco, conventional financial services like banking and insurance, casinos/gambling, pornography, gold and silver trade, hotel industry.).

After removing firms with inappropriate core and secondary business activities, the remaining companies are screened on the basis of different financial ratios. The Dow Jones identifies three ratios:

1- Leverage ratio: total debt to market capitalization less than 33%;
2- Cash ratio: cash and interest-bearing securities to market capitalization less than 33%;
3- Liquidity ratio: accounts receivables to market capitalization less than 33%.

Sample selection

The purpose of this paper is twofold. First, it investigates the impact of sharia-compliance on dividend policy. Second, it examines the effect of sharia-compliance on the free cash flow-dividend relationship. Our sample consists of firms listed on the GCC stock exchanges over the period 2009-2014. GCC countries are Saudi Arabia, Bahrain, Kuwait, Qatar, United Arab Emirates and Oman. Data are hand-collected from companies' financial reports provided by the website "argaam.com". We have constructed a panel data of non-financial listed companies from 2009 to 2014. Our initial sample consists of all GCC listed companies. We proceed as follow:

First, we exclude banks and insurance because of their specific rules and regulations.

Second, we exclude firms with missing information for the period ranging from 2009 to 2014. We limit our study to companies for which annual reports are available. The final sample consists of 207 firms with a total of 1242 firm year observations.

Table 1 reports the number of sharia-compliant and non-sharia-compliant firms in each year (Panel A) and in each country (Panel B). Interestingly, we find more sharia-compliant firms than non-sharia-compliant firms for all countries and all industries.

Table 1: Number of sharia-compliant and non-sharia-compliant firms

The following table shows the number of sharia-compliant firms and non-sharia-compliant firms for our sample. The sample comprise of firms from Saudi Arabia, Bahrain, Kuwait, Qatar, United Arab of Emirates, and Oman. The sample period is from 2009 to 2014. Panel A documents the number of sharia-compliant firms and non-sharia-compliant firms for each year, while Panel B documents similar statistics for each industry.

	Sharia-compliant firms		Non-sharia-compliant firms	
Panel A: sharia- and non-sharia-compliant firms in different years				
Countries	Number of firms	Frequency	Number of firms	Frequency
Saudi Arabia	54	77.14%	16	22.86%
Bahrain	8	88.89%	1	11.11%
Kuwait	25	58.14%	18	41.86%
Qatar	16	72.73%	6	27.27%
United Arab Emirates	23	58.97%	16	41.03%
Oman	17	70.83%	7	29.17%

Table 1 (Cont.)

Industry	Number of firms	Frequency	Number of firms	Frequency
Petrochemical Industries	19	67.86%	9	32.14%
Cement	10	66.67%	5	33.33%
Agriculture and Food Industries	25	78.12%	7	21.88%
Industrials	22	64.71%	12	35.29%
Building and Construction	17	65.38%	9	34.62%
Retail	14	70%	6	30%
Consumer services	14	63.64%	8	36.36%
Real Estate Development	12	75%	4	25%
Telecommunication	4	66.67%	2	33.33%
Utilities	6	75%	2	25%

Panel B: sharia- and non-sharia-compliant firms in different industries

Variable definition

Dividend policy

We use two variables to measure the dividend policy of a firm: the dividend payout ratio and the decision to pay dividend. Consistent with prior research (Jensen *et al*. 1992; Farinha, 2003; Kowalewski *et al*., 2007; Guizani, 2014), we use the ratio of cash common dividends to net income to measure the dividend payout ratio. This measure estimates the tradeoff between the payment and the retention of benefits. The decision to pay dividend is a dummy variable which equals one if a firm makes dividend payments and zero otherwise.

Free cash flow

The literature is divergent on how to measure free cash flow as defined by Jensen (Lang *et al*., 1991). It is the subject of various measures in empirical studies. While some authors define it as operating income before depreciation, interest expense and taxes, divided by the carrying amount of total assets asset in order to eliminate any size effect (Lang *et al*. 1991), other authors retain a different conception, which consists in subtracting from cash flows the interest expenses and even the dividends paid. Lehn and Poulsen (1989), Wu (2004) and Wang (2010) determine the amount of free cash flow by subtracting from the operating income before depreciation the total amount of taxes, gross interest paid on debt, the total amount of dividends paid on common shares and preferred dividends. In our study, the free cash flow is measured as:

Free cash flow = (Operating Income before depreciation – taxes – interest paid on debt – total dividends) / Total assets.

Control variables

Control variables of the study are firm size, leverage, growth opportunity and profitability. We measure the size of the firm by natural log of total assets. To calculate leverage, we divide total

debt to total assets. Tobin Q is used as a proxy to measure the growth opportunities. Profitability is measured by net earnings to total capital.

Table 2 summarizes the variables of our study.

Table 2: Variable definition and measurement

The following table reports the variables of our models. The dependent variables are dividend payout ratio and the decision to pay dividends. Independent variables are sharia compliance and free cash flow, whereas controlvariables are profitability, growth opportunities, leverage and firm size.

Variable type	Variable name	Variable abbreviation	Measurement method
Dependent variable	Dividend policy	PAYOUT	Cash dividend/ earnings
		PAY	1 if firm pays dividend and 0 otherwise
Independent variables	Sharia compliance	SHARIA	1 if firm is sharia-compliant and 0 otherwise
	Free cash flow	FCF	(Operating Income before depreciation – taxes – interest paid on debt – total dividends) / Total asset
Control variables	Profitability	PROF	Earnings/Total capital
	Growth	Q	(The market value of equity + the book value of debt)/ The book value of assets.
	Leverage	LEV	Total debt / Book value of total assets
	Firm size	SIZE	Ln (Total assets)

Regression Specification and Estimation Methodology

In order to test the effect of sharia-compliance in dividend policy, we estimate a regression with dividend policy as a dependent variable. We use two different variables to define dividend policy. The first proxy is the dividend payout ratio (PAYOUT) and is defined as the percentage of earnings paid as dividends, while the second proxy is the decision to pay dividend (PAY) and is defined by a dummy variable that takes the value of 1 if firm pays dividend and 0 otherwise. For this purpose, we use consecutively a linear and a logit regression. Our regression equations take the following form:

$$PAYOUT_{i,t}/PAY_{i,t} = \beta_0 + \beta_1 SHARIA_{i,t} + \beta_2 FCF_{i,t} + \beta_3 PROF_{i,t} + \beta_4 Q_{i,t} + \beta_5 LEV_{i,t} + \beta_6 SIZE_{i,t} + \varepsilon_{i,t}$$

In order to identify the effect of sharia-compliance on the free cash flow-dividend relationship, we use two methods involving two main regression models. The first method is to test the following regression model:

$$PAYOUT_{i,t}/PAY_{i,t} = \beta_0 + \beta_1 FCF_{i,t} + \beta_2 PROF_{i,t} + \beta_3 Q_{i,t} + \beta_4 LEV_{i,t} + \beta_5 SIZE_{i,t} + \varepsilon_{i,t}$$

on two sub-samples of firms distributed according to sharia-compliance.

The second method consists in testing on the total sample the following regression models:

$$PAYOUT_{i,t}/PAY_{i,t} = \beta_0 + \beta_1 SHARIA_{i,t} + \beta_2 FCF_{i,t} + \beta_3\ SHARIA_{i,t} \times FCF_{i,t} + \beta_4 PROF_{i,t} + \beta_5 Q_{i,t} + \beta_6 LEV_{i,t} + \beta_7 SIZE_{i,t} + \varepsilon_{i,t}$$

The estimation of the proposed models is conducted on a panel data. According to Baltagi (2005), panel data gives multiple solutions to many problems related to cross-sectional specification like unobserved heterogeneity, degrees of freedom, dynamics and collinearity among the explanatory variables. To choose the appropriate specification for linear regressions, panel data methodology offers two tests namely the F-statistics and the Hausman's specification test. The former measurement tests the null hypothesis that the adequate estimator is OLS regression compared to individual effects model. The Hausman test fundamentally tests the null hypothesis that the individual effects are not correlated with the explanatory variables. The fixed effects model is used if the null hypothesis is rejected since in this case biased estimators will be generated by a random effect model.

RESULTS AND DISCUSSION

Univariate analysis

Table 3 summarizes the key characteristics of the sample firms and the test of difference of means between sharia-compliant and non-sharia-compliant firms. The descriptive statistics of the whole sample indicate that firms distribute an average of 43% of their net profits as dividends. The standard deviation of the dividend payout ratio is 38%, suggesting that the dividend payout ratio is relatively highly dispersed. This result is similar to that of Al-Kuwari (2009) which found an average dividend ratio of 43% and a standard deviation of 59.8% on a sample of 191 GCC firms over the period 1999-2003. The results also show that throughout the period, on overage 66% of firms pay dividend. The free cash flow for the total sample is 10% of total assets, which indicates that the funds available to managers of GCC firms are relatively high. The existence of these funds may lead management to undertake sub-optimal investment projects. The sample mean values of profitability, growth, leverage and firm size are of the order of 13%, 2.07, 18% and 9.31 respectively.

It is noticeable that sharia-compliant firms pay higher dividend and have higher probability to pay dividend. The results indicate an average of 47% of earnings is paid as dividend for sharia-compliant firms versus 31% for their non-sharia-compliant counterparts. Similarly, 69% of sharia-compliant firms pay dividend versus 57% of their non-sharia-compliant counterparts. In contrast, sharia-compliant firms have low free cash flows than those that do not comply with sharia. For the other characteristics, we find that sharia-compliant firms are more profitable, have high growth opportunities, less leveraged and have small size than their non-sharia-compliant counterparts. As indicated in table 3, all differences are significant at 1% threshold, except for growth opportunities.

To verify the multicollinearity among the explanatory variables, we use two tests. In the first test, a pairwise correlation matrix among the explanatory variables was estimated. As shown in Table 4, it is important to note that all correlation coefficients are less than 0.8 that corresponds to the limit set by Kennedy (1985) from which we start to have serious problems of multicollinearity. This leads us to conclude that there is no serious problem of multicollinearity.

Table 3 Descriptive statistics and test of difference of means

The following table gives the descriptive statistics of all variables for the total sample. It presents also the test of difference in means of all variables between sharia-compliant firms and non-sharia-compliant firms.

Variable	Total sample		Sharia compliance		Non-Sharia compliance		Test of difference of means: Sharia vs Non-Sharia compliance
	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev	
PAYOUT	0.43	0.38	0.47	0.39	0.31	0.33	0.16***
PAY	0.66	0.47	0.69	0.46	0.57	0.50	0.12***
FCF	0.10	0.11	0.07	0.08	0.11	0.11	-0.04***
ROE	0.13	0.18	0.15	0.20	0.09	0.12	0.06***
Q	2.07	2.91	2.76	2.36	0.86	0.26	2.9
LEV	0.18	0.17	0.09	0.10	0.38	0.12	-0.29***
SIZE	9.31	0.71	9.11	0.66	9.79	0.58	-0.68***

To further test whether the explanatory variables are correlated, we have calculated the "Variance Inflation Factor (VIF)". This index shows how much the variance of an estimated regression coefficient is increased due to multicollinearity. Studenmund (2006) indicates that the common critical point is 10. If the VIF is larger than 10, then multicollinearity is quite high in the respective regression model. As illustrated in table 5, the VIF for individual variables was very low. This indicates that the explanatory variables included in the model are not substantially correlated with each other.

Table 4 Correlation coefficients and Variance Inflation Factor (VIF) for the explanatory variables

The following table reports the correlation coefficients amongthe explanatory variables. It presents also the Variance Inflation Factor (VIF) for the explanatory variables.

	SHARIA	FCF	ROE	Q	LEV	SIZE	VIF
SHARIA	1						2.71
FCF	-0.18	1					1.66
ROE	0.15	0.59	1				1.56
Q	0.04	-0.03	-0.04	1			1.03
LEV	-0.68	-0.14	-0.10	0.06	1		2.88
SIZE	-0.43	0.17	0.10	-0.02	0.49	1	1.45

Multivariate analysis

Table 5 shows the regression results of the relationship between sharia-compliance and dividend policy. We introduce two dependent variables to investigate this relationship: the percentage of earnings paid as dividends (PAYOUT) and the decision to pay dividend (PAY). As can be seen from table 5, the coefficients associated to sharia-compliance are positive and statistically significant at 5% and 10% threshold respectively in the two regressions. These results confirm the prediction of our hypotheses H1a and H1b suggesting that sharia-compliant firms have

significantly higher dividend payout ratios and are more likely to pay dividends than their non-sharia-compliant counterparts. The results reported in table 5 show that sharia-compliant firms have higher dividend payouts than non-sharia-compliant firms by 10.33 percentage points. Likewise, the results indicate that odds of paying dividends by sharia-compliant firms are 2.2056 [=exp(0.791)] times more than non-sharia-compliant firms. Therefore, the obtained results are consistent with our arguments suggesting that financial characteristics of sharia-compliant firms are such that they are more likely to pay higher dividends than their non-sharia-compliant counterparts (Farooq and Tbeur, 2013). Low leverage and low cash ratios allow sharia-compliant firms to distribute higher dividends and are more likely to pay dividend to their shareholders than non-sharia-compliant firms (Omran and Pointon, 2004; Skinner and Soltes, 2011).

As expected, a positive correlation with a statistical significance of 1% exists between the free cash flow and the two dependents variables. Firms that experienced a higher rate of free cash flow pay more dividends and are more likely to pay dividend. This result supports the contention of the free cash flow hypothesis of Jensen (1986). According to this hypothesis, paying out dividend mitigates the agency problems caused by substantial cash (Kadioglu and Yilmaz, 2017).

In addition, as can be seen from table 5, leverage and firm size appear to be a statistically significant determinant of dividend policy in the companies listed on the stock exchanges of GCC countries.

Table 5: Regression of sharia compliance on dividend policy.

The following table presents the regression results of the effect of sharia compliance on dividend policy measured by the payout ratio and the decision to pay dividends. The coefficient that are significant at 10% are followed by *, those at 5% and 1% by ** and *** respectively.

Variable	Dependent variable: PAYOUT	Dependent variable: PAY
Intercept	-1.6350***	-11.3099***
SHARIA	0.1033**	0.7910*
FCF	0.5373***	5.7512***
ROE	0.0001	7.0639***
Q	-0.0003	-0.1559
LEV	-0.2306*	-1.1716*
SIZE	0.2120***	1.1657***
No. of observations	1242	1242
R^2 within	0.05	
R^2 between	0.28	
R^2 overall	0.17	
Pseudo R^2		0.28
Wald chi2	59.00***	
LR chi2		227.62***
Hausman test	58.51***	
Breusch –Pagan test	240.61***	

Table 6 shows that the effect of free cash flow on firm dividend policy measured by the dividend payout ratio is significantly positive for the two groups of firms distributed according to sharia-compliance. However, it is important to note that this effect is significant at the 1% threshold for sharia-compliant firms and at the 10% threshold for non-sharia-compliant firms. With respect to the explanatory power of the two regression models, we notice a difference in the values of R^2. These values are higher for sharia-compliant firms. Such a result suggests that the effect of free cash flow is likely to be more favorable in sharia-compliant firms. It seems that compliance with sharia is an essential factor in mitigating agency costs of free cash flow by using firm dividend policy. Hence, sharia-compliance, by imposing certain constraints on the level of additional funds, forces managers to distribute these substantial funds to shareholders as dividends.

From these considerations, sharia-compliance is a factor that promotes commitment in free cash flow limitation and generates an increase in dividend payout. This result is also confirmed by testing the interaction effect between the sharia-compliance and the free cash flow on the dividend payout since the interaction coefficient FCF*SHARIA is positive and significant at the 5% threshold.

Similarly, the effect of free cash flow on firm dividend policy measured by the decision to pay dividend is significantly positive for sharia-compliant and non-sharia-compliant firms. However, it seems that this effect is stronger for sharia-compliant firms. The values of Pseudo R^2 show a difference between the two groups. These values are higher for sharia-compliant firms. Such a result suggests that the effect of free cash flow on the decision to pay dividend is likely to be more favorable in sharia-compliant firms. Consequently, key characteristics of sharia-compliant firms such as low leverage and low cash ratios allow mangers to pay dividend to their shareholders than non-sharia-compliant firms. These findings are confirmed by the interaction coefficient FCF*SHARIA. The coefficient associated with interactive variable is positive and significant at 1% threshold. Overall, the results corroborate our hypothesis H2b.

Table 6: Regression of sharia compliance on free cash flow – dividend policy relationship.

The following table presents the regression results of the effect of sharia compliance on the relation between free cash flow and dividend policy measured by the payout ratio and the decision to pay dividends. The coefficient that are significant at 10% are followed by *, those at 5% and 1% by ** and *** respectively.

Variable	Dependent variable: PAYOUT			Dependent variable: PAY		
	Sharia compliance	Non-Sharia compliance	Total sample	Sharia compliance	Non-Sharia compliance	Total sample
Intercept	0.1936	-1.8591***	-1.7112***	-2.37	-16.19***	-12.73***
FCF	1.4135***	0.2849*	1.1378***	16.47***	3.75*	14.81***
SHARIA			0.1711***			1.40***
FCF×Sharia			0.7767**			11.74***
ROE	-0.0101	-0.0043	0.0057	6.82**	5.88***	7.13***
Q	0.3283***	-0.0003	-0.0003	2.68***	-0.13	-0.12
LEV	-0.4736**	-0.2423*	-0.2228*	-5.95**	-1.26	-1.62*
SIZE		0.2522***	0.2149***	0.10	1.81***	1.25***

Table 6 (Cont.)

No. of obs.						
R^2 within	0.12	0.08	0.06			
R^2 between	0.33	0.20	0.28			
R^2 overall	0.28	0.19	0.17			
Pseudo R^2				0.38	0.25	0.30
Wald chi2	34.63***	39.22***	64.58***			
LR chi2				171.82***	81.31***	236.18***
Hausman	10.28*	54.65***	61.37***			
Breusch–Pagan	22.00***	164.93***	239.63***			

CONCLUSIONS AND IMPLICATIONS

Firms generating a significant amount of discretionary funds, which exceed the need for positive net present value investments, are faced with the issue of efficient management of these resources. Jensen (1986) highlights, in a conceptual sense, the risk of reinvestment of these funds by managers in value destructive projects. In order to mitigate this practice, prior literature emphasizes the major role of dividends in reducing excess cash. The payment of high dividends subjects managers under financial market discipline. By making internal funds insufficient to cover investment needs, managers are forced to access the external capital markets to finance new projects. Thus, dividend puts the management under inspection by security exchange, investment banks and capital suppliers.

Besides, the free cash flow problem severity seems to be dependent on compliance with sharia. In fact, among the key characteristics of sharia-compliance is the low ratio of cash and interest bearing. The proposed study sought to provide some answers to the empirical questions about the dividend policy of sharia-compliant firms as well as testing the free cash flow hypothesis of such firms. The study applies a panel regression to a data set composed of 1242 observations from 207 companies during the period 2009-2014.

Our empirical results show a significant difference between dividend policies of sharia-compliant firms and non-sharia-compliant firms. Sharia-compliant firms not only have higher payout ratios but also have higher likelihood to pay dividends than their non-sharia-compliant counterparts. We argue that the financial characteristics of sharia-compliant firms are at the origin of this difference. Thus, sharia-compliant firms that are constrained to low level of debt and low level of cash have higher chances to pay dividends than non-constrained firms (Omran and Pointon, 2004; Skinner and Soltes, 2011).

Furthermore, Consistent with avoidance of the free cash flow problem, we find that the dividend payments of sharia-compliant companies respond more strongly to free cash flow than do the dividend payments of non-sharia-compliant companies. Sharia-compliant companies are likely to pay out more of their free cash flow than non-sharia-compliant companies, which can prevent managers from misusing the resources in ways that may not maximize shareholder wealth.

The implications of our study are that sharia-compliant firms may be more likely to design dividend policies to encourage more appropriate investment of corporate resources. These firms are less likely to overinvest or otherwise misuse free cash flow, as they pay more of the free cash flow out as dividends than non-sharia-compliant firms. In total, these are indications that sharia-compliant firms are better governed than their non-sharia-compliant counterparts. The study has also implications for investors. They can choose the companies for better investment considering the nature of the companies on the basis of compliance to sharia.

Further studies may investigate corporate governance of sharia-compliant firms and in what extent it differs from non-sharia-compliant firms.

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