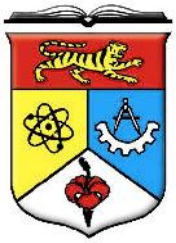

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Disclosure, Cost Of Capital And Islamic Banks Performance: A Simultaneous Equations Approach[1]

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Abstract:
The topic of market discipline introduced in BASEL II in 1999 has received considerable interest lately. Among others, disclosure and the capital requirements of banks greatly affects the way banks are expected to be performed. The debate on bank capital and increase disclosure arises as one approach for market discipline. This study attempts to test performance and disclosure simultaneously in exploring the relation between disclosure and performance. Using ten samples of full-fledged Islamic banks and Islamic banking windows over the period between years 2001 to 2006, this study found that performance and disclosure have interdependent relationship. The results may provide additional information in which the level of disclosure can be used to indicate the likelihood of Islamic banks to be performed and vise versa.

Keywords: Accounting for Islamic Financial Institutions, Disclosure, Cost of capital, Simultaneous equation method.

1 INTRODUCTION

A firm can be described as an outcome of a relationship between two different parties, a principal and an agent. This relationship (or known as agency relationship) creates a contract when principal provides equity capital and the agent manages the firm on the principal's behalf. The separations of ownership and control in such equity type of contract suggest the needs of monitoring to mitigate agency problems (Jensen and Meckling, 1976). Therefore, to satisfy the contract and enhance agency relationship, information is needed. Disclosure of information is very much related. Any favorable information regarding the expected return disclosed might affect shareholders and potential investors. For example investment decisions to acquire shares in that particular firms. Indirectly, firms value is increased and such disclosure is important for this type of contract.

In structuring the contract, firms have choices whether to choose more or less capital and the composition of capital for each type of contract. Typically. firms capital structure consists of equity and debt contract. The equity contract involves cost of equity while for debt contract, cost of debt is incurred. Cost of capital is used to measure

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return to be paid to the capital providers. The expected return that must be achieved should be more than the cost of capital in order to satisfy them. In a situation where shares are highly demanded due to favorable information in a market, cost of capital is affected and hence, market value of the shares (Botosan,1997; Healy et al,1999). It is suggested that cost of capital is affected by information disclosed by firms. Thus, the direct effects of disclosure to firms value could be explained through cost of capital. In this case, firms value and cost of capital has a direct relationship and benefits of disclosure could be seen through an increase in firms value.

For banks, among the benefits of disclosure especially within the banking system is to correct any bank misevaluation and to increase institutional interest and liquidity of the bank. Increase of information disclose by banks is expected to lead for growing in performances as a result of monitoring by outsiders. In this case, disclosure disciplines banks management and helps the bank to increase their value. Banks also tend to minimize their cost of capital, comply with the capital requirement and at the same time heavily observed their risk-taking activities (Baumann and Nier, 2004; Nier and Baumann, 2006). Thus, the extent to which bank discloses information or level of disclosure to the user is significant for the market (user) to discipline bank.

2.0 DISCLOSURE, PERFORMANCE AND BANKING INSTITUTION

The topic of market discipline to the banking institution has received considerable interest since the introduction of BASEL II in 1999. The debate on bank capital and increase disclosure arises as one approach for market discipline (Baumann and Nier, 2004; Nier and Baumann, 2006; Hirtle, 2007). For banks, capital decision is subjected to regulatory requirements. Bank capital is not only used as a source of financing but it is also used as tool in managing risks. Therefore, holding capital stands as a buffer against risks. In this case, management discretions are important as the liability side of banks balance sheet is adjusted with capital amount. Banks that is able to absorb the losses that is unforeseen, able to reduce cost of capital, their performance would be higher. When the cost of capital is used by the market in determining the possible return out of the investment, bank performance is directly related.

To date, the effects of an increased in disclosure to the cost of capital have long been discussed in disclosure literature. But to banks, such discussion consider limited. This paper tend to fill the gap by presenting the empirical evidence on disclosure effects and lead us to hypothesize that disclosure, and banks performance might be interdependent. Al-Tuwaijiri *et al* (2004) suggest that disclosure is positively associated with performance while Hassan *et al* (2009) find that disclosure is negatively related to performance. Al-Tuwaijiri *et al* (2004) test performance and disclosure simultaneously in exploring the relation between disclosure and performance in the study of environmental reporting. Their findings reveal that firms who performed is a good environmental performer firms and with better disclosure. As Al-Tuwaijiri *et al* (2004) concentrated performance in the area of environmental reporting and adopted simultaneous equation analysis, study by Hassan et al (2009) who documented negative relationship tests disclosure effects in single relations (disclosure and firm value). To our knowledge, Lu C. et al (2007) is the one in the area of disclosure study examined relationship among 3 variables, ownership structure, disclosure and performance. The simultaneous estimation approaches used by Lu C. et al (2007) shows that a positive relation between disclosure and performance is documented.

Focuses on banking, Baumann and Nier (2004) found the benefits of disclosure leads to lower risk and higher risk-adjusted returns. Subsequently, Hirtle (2007) examined the relationship between the amount of information disclosed by bank and their effect on risk and performance. Result shows that greater disclosure is associated with more efficient risk taking and thus improved risk-return trade offs. Baumann and Nier (2004) and Hirtle (2007) however concentrated on risk disclosure in annual report and focused on listed banks.

Although this paper follow the existing study on banks but we expand the coverage of disclosure to not just risk disclosure but the financial information disclosed in annual report. Further, our focus are for samples of Islamic banks which is considered limited in the study of disclosure, cost of capital and bank performance. In addition, we will develop knowledge about the mutual relationship between disclosure and performance by using

panel data using simultaneous equations approach. My arguments relate the benefits of disclosure through lowered cost of capital which further increased performance. At the same time, performance of bank determines the extent of disclosure that have been made.

For the purpose of this study, ten samples of full-fledged Islamic banks and Islamic windows over the period between years 2001 to 2006 is used. Thus, additional evidence on the interdependent relationship of disclosure and performance to Islamic banks is hoped to be produced. Taken together, the objective of this paper is to examine the relationship between disclosure and bank performance using panel simultaneous equation.

3.0 PRIOR STUDY

Theory suggests that cost of capital is affected by information disclosed by firms. While the cost of capital has direct relationship with firm value. Firms that discloses more information is found to be decreased in their cost of capital. Although, the result is subjected to major arguments in several empirical works (Botosan, 1997; Diamond and Verrecchia, 1991; Sengupta, 1998; Botosan and Plumlee , 2002 ; Peterson and Plenborg , 2006 ; Hassan et al, 2009). Botosan (1997) stressed the difficulties in getting the actual estimation for cost of equity. As a result, cost of capital that documented negative relations to disclosure is difficult to be defended. Another portion of cost of capital which was cost of debt is expected to be affected with disclosure changes. Such predictions is proved by Sengupta (1998) as he claims the disclosure effects are not limited to cost of equity (as in Botosan), but also to the cost of debt. Similar to Botosan study on cost of equity, negative relationship is documented for cost of debt. Botosan and Plumlee (2002) reexamined previous work on cost of equity capital with various type of disclosure. They do not found any association between cost of equity and disclosure while positive association result is found only for timely disclosure. Thus, there are limitations in documenting the effects of disclosure to cost of equity capital. Meanwhile, others claimed that there are inconclusive evident as a result of such major arguments (Mensah et al, 2003; Hassan et al, 2009).

In determining the cost of capital, capital structure of the firms is used which consists of different type of contract, the equity contract and the debt contract. In structuring the contract, firms have choices on the composition of their capital structure as each contract has their own cost. It is already recognized that debt contract considered as one of the important external resources that also contributes in maximizing firms value. Without them, firms highly depends to the earnings that their retained if new shares is not issued. Such internal sources of fund is explained in the Pecking order theory by Myers and Majluf (1984) as the cheapest in structuring firms capital structure. As the retained earnings is developed internally in addition to the shareholders equity, the cost associated with introducing new shares and other related processing cost external to the firms could be avoided. The debt contract also incurred more cost as compared to the retained earnings but lower than equity. Thus, among all, the most expensive cost is the equity type of contract. The information cost that involved regarding the uncertain return provided by this type of contract is increased. Hence, the theory attempt to solve the question on solving options for capital. It is by prioritize the order of capital according to cost for each type of contract.

Thus, the direct effects of disclosure to performance could be explained through cost of capital which leads this study to hypothesize contract based capital structures affects performance as a result of cost of capital that is incurred. And as mentioned earlier, the cost of capital of the firm is affected by information disclosed by the firm. The link between disclosure and performance hence might be interdependent. The discussion in this paper will be divided to 7 sections. Section 3 reviews prior studies of disclosure, section 4 discusses the model and methodology. Section 5 discusses the findings and chapter 6 provides discussion of the results. The last section ends this paper with conclusions.

4. MODEL

Since, contract affect cost, in particular for Islamic banks, the cost of capital differ for different types of contracts, the possible relationship with performance and disclosure might also be different. In order to construct those relationships, this study considers a simultaneous equation approach.

The equations are adopted from Lu C *et al* (2007) and Al-Tuwaijiri *et a*l(2003). This study argued that mutual relationship exists. In this situation, simultaneity problem might arise where disclosure and performance are both endogenously determined. For that, panel data with pooled, fixed and random effect or none-effects might not be fully suitable in explaining such situation for this estimation. A simultaneous equation which includes the analysis of panel two-stage least-square might better suits the estimation. Thus, first the initial model follow based on model developed by Al-Tuwaijiri *et al* (2003) with fews refinement could be written as follows:

DISC = f (PERF, predetermined variables)
PERF = f (DISC, predetermined variables)

From the above two equations, there are two models stated as DISC model (DISC equation) and PERF model (PERF equation). Before proceeds to the structural forms equation following the above, discussions of endogenous variables, exogenous variables and predetermined variable is presented.

4.0 Endogenous variable and exogenous variable

The endogenous variables stated in the equation above are disclosure level (DISC) and bank performance (PERF). Following previous study on firm value however, this study refer value of the banks is the extent of the banks performed in the industry. PERF by the sample banks is the performance of the Islamic banks. The ultimate responsibility of Islamic banks is as a trustee to the creator. And for the banks stakeholders as a whole, it is essential that they should perform to meet objectives of diverse stakeholders including their shareholders, depositors, borrowing customers and employees.

Based on signaling theory, by adding more information to supports their profitable conditions, it can convince the stakeholder where they are actually in that favorable condition. thus positive relationship is expected. Disclosure will also benefit banks when cost of capital (fund) is lowered. In this case, performance is expected to increase, lead to an increased in customers confident. Further, leads to more services and finances. This study proposes performance using the Returns on Investments (ROI) as accounting performance as it is more directly related to banks survivals and covered listed and non-listed banks.

DISC by the sample banks is measured by scores, calculating the level of information disclosed using dichotomous procedures as follows, i.e., we find:

(a) the total numbers of items disclosed; (b) total maximum numbers of items applicable. Both can be calculated from the following equations:-

$$TDit = \sum_{i=1}^{n} dit$$

and,

$$MSit = \sum_{i=1}^{m} Dit$$

where,

TD = Total numbers of items disclosed
MS = Total maximum numbers of items applicable
d = scores of item disclose, 1 (disclosed) and 0 (not disclosed)
D = scores for each applicable items, 1 for each items
n = the number of disclose item
m = the number of applicable items which the company expected to disclose

For applicable item, where an item is not disclose due to it is not applicable, it is concluded that the item is not relevant to the index. Therefore it is not expected to be disclosed and not calculated as the number of

applicable items. On the other hand, if an item is applicable, stated somewhere in the annual report, but has not been disclosed, the item falls under the item which is applicable (m). The item will be given scores of 1 for item applicable (D), and 0 scores for item disclose (d).

The relative level of disclosure by each banks can be calculated by dividing the total numbers of items disclosure (TD) by the maximum numbers of items applicable (MS).

$$DISCit = TD\ it/MS\ it$$

DISC = Disclosure level
TD = Total numbers of items disclosed
MS = Total maximum numbers of items applicable

4.1 Predetermined variable

The operational definitions of the predetermined variables (exogenous variables) are as follows:-

RWCR	The percentage of total capital to the risk weighted assets(RWA).of the banks Total capital consisting of Tier 1 and Tier 2 capital . The RWA is provided in the individual banks notes to the accounts
L_DEP_{it}	Total deposit of Islamic banks' operation as provided under the balance sheets of the individual banks
L_SIZE_{it}	Total asset of Islamic banks' operation as provided under the balance sheets of the individual banks
L_NPF	Non-performing financing as at end of the financial year as disclosed in the notes to the accounts.

RWCR stands as a tool to limit the risk of bank failure and protect depositors. To gain customers confidence and comply with the regulatory requirement, the *RWCR* should be at an acceptable risk condition. Thus, it is expected to lead for better performing bank as bank failure and riskiness rate is reduced. Major empirical work supported such association however, there are mix result have been documented. Positive association is found in the study of bank by Berger (1995) and in Goddard *et al* (2004), an inverse relationship. *L_SIZE* that are associated with increase disclosures and performance are suggested in several disclosure studies (such as in Cooke (1992) and Akhtaruddin (2005)). It is due to the high expectations of society for more information as a monitoring mechanism and significance of the big firms in the industry or to one country. In additions, the cost associated with producing more information by large firms is smaller due to availability of necessary resources as compared to small firms in disseminating and collecting information. Thus, big firms have more incentives to disclose more information.

Meanwhile, another argument is according to political cost hypothesis where smaller firms might probably disclose more information to show visibility of them to the public (Watts and Zimmermann, 1986). Specific to bank, the positive relationship of size with banks has been documented in various study. Akhavein *et al* (1997) is among others who found such relationship in banking industry. Arguments are on the diseconomies of scales captured by sizes where big bank tend to be more profitable. However, Berger *et al* (1987) argued the advantage of economies of scales is profound for smaller banks. This is due to big banks is inefficient compared to smaller bank. *L_NPF* measure the asset quality of the banks. As financing constitute the large portion of banks asset, huge amount of non performing financing or non-performing loan will deteriorate the banks asset. Ngo (2006) argued that non-performing loan is key element in bank failures. Based on signaling theory, by adding more information to supports their profitable conditions, it can convince the stakeholder where they are actually in that

favorable condition. thus in the case of NPF, the more NPF the bank have, less information is produced as they are not in favorable condition.

4.2 Predetermined variables and structural equation

The structural form of the equation incorporating the predetermined variables as explained above are:

$$PERF_{it} = \beta_0 + \beta_1 DISC_{it} + \beta_2 RWCR_{i(t-1)} + \beta_3 L_DEP_{it} + \beta_4 L_SIZE_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots(1)$$

$$DISC_{2it} = \alpha_0 + \alpha_1 PERF_{2it} + \alpha_3 DISC_{2i(t-1)} + \alpha_4 L_NPF_{2it} + \alpha_5 L_SIZE_{2it} + \varepsilon_{2it} \ldots\ldots.(2)$$

Where

i. 1,2..n, refers to units of cross-section for numbers of Islamic banking in Malaysia
ii. t = 1,2,..t, refers to times
iii. $DISC_{it}$ refers to disclosure for i bank individual and t times
ii. $DISC_{it-1}$ refers to the lagged control disclosure for i bank individual and t times
iii. $PERF_{it}$ refers to performance for i bank individual and t times
iv. $RWCR_{i(t-1)}$ refers to Risk Weighted Assets Ratios for i bank individual and t times
v. $\beta_3 L_DEP_{it}$ refers to natural log of deposit for i bank individual and t times
vi. L_SIZE_{it} refers to natural log of size for i bank individual and t times
vii. L_NPF to natural log of non-performing financing for i bank individual and t times
viii. ε_{it} is a error terms for each banks and times. Assume that has a constants variant.

In exploring the mutual relationship, the relationship between these two variables and the possible endogeneity of the variables need to be found. Two-stage least squares (2SLS) has been a widely used method of estimating the parameters of a single structural equation in a system of linear simultaneous equations. Thus, to investigate the effect and the possible endogeneity of each independent variables, the 2SLS systems is used where we regress all the equations jointly. The endogenenous variables are DISC and PERF, the exogenous variables are RWCR, L_DEP, DISC(t-1) , L_NPF and L_SIZE. Referring to the structural form of the equation in (1) and (2).

Each endogenous variable can be solved for in terms of the exogenous variables and structural shocks to get the reduced form of the equations:

$$\hat{PERF}_{it} = \hat{\Pi}_0 + \hat{\Pi}_2 RWCR_{i(t-1)} + \hat{\Pi}_3 L_DEP_{it} + \hat{\Pi}_4 L_SIZE + u_{it} \ldots(3)$$

$$\hat{DISC}_{2it} = \hat{\Pi}_0 + \hat{\Pi}_2 DISC_{2i(t-1)} + \hat{\Pi}_3 L_NPF_{2it} + \hat{\Pi}_4 L_SIZE_{2it} + u_{2it} \ldots..(4)$$

In stage 2 we replace the endogenous variables ($PERF_{it}$ and $DISC_{2it}$) in the original (structural) equations by their estimated values from the preceding two regressions and then run the 2SLS as follows (Gujarati , 2003):

$$PERF_{it} = \beta_0 + \beta_1 \hat{DISC}_{it} + \beta_2 RWCR_{i(t-1)} + \beta_3 L_DEP_{it} + \beta_4 L_SIZE_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots(5)$$

$$DISC_{2it} = \delta_0 + \delta_1 \hat{PERF}_{2it} + \delta_2 DISC_{2i(t-1)} + \delta_3 L_NPF_{2it} + \delta_4 L_SIZE_{2it} + \varepsilon_{2it} \ldots\ldots(6)$$

This study uses annual report of full-fledged Islamic banks and Islamic banks windows from 2001 to 2006. All of the 10 selected banks are subjected to the requirements of Bank Negara Malaysia thus, their financial reporting are under specific disclosure requirements which is the GP8-i guideline.

5 RESULTS

The empirical distributions of the data from samples at initial analysis comprises of 60 observations. I manage to analyse 51 observations due to some cross sections units need to be dropped. Table 1 present the results of descriptive statistics involving the mean, standard deviation, skewness, kurtosis and Jarque-bera value. Generally, to test whether the estimation technique is suitable for this type of data, those values can be referred. Among others, four out of six variables' shows Jarque-bera not significant which concludes the normally distributed data. Most variables also have skewness value around zero and kurtosis around zero. In conclusion, results of descriptive analysis should produce better estimation from this type of data.

Table 1: Descriptive Statistics

Variables	*PERF*	*DISC*	*RWCR*	*L_DEP*	*L_SIZE*	*L_NPF*
Mean	0.0141	0.9059	11.0890	15.0788	15.1648	11.6663
Std. Dev	0.0125	0.1056	3.9918	1.0208	0.8060	1.7385
Skewness	2.3152	-0.9586	3.6041	-0.3910	-0.0814	-0.6764
Kurtosis	9.6278	2.7528	1.0120	2.4993	1.8115	2.6464
Jarque-Bera	138.9102	7.9410	3.5364	1.8324	3.0574	4.1554
	0.0000	(0.0188)	(0.0094)	(0.4000)	(0.2168)	(0.1252)

Number in parenthesisi refers to the *p* value

5.1 Panel Estimation and Model Comparison

In order to test the relations among the variables, the analysis had considered three effects such as pooled effect, fixed effect and random effects in order to deal with the panel data. Table 2 below provides the panel estimations result for the two models on taking into consideration the pooled, fixed/random effects. The results for fixed effect shows better estimations for DISC while for PERF, random effects is slightly better comparing the stated S.E regression. The following discussion will be based on such tested evidence on the comparisons of model. The results follow the presented figures of table 2 under the fixed/random effects column.

Table 2 : **Panel Two-Stage Least Squares Regression Result for DISC and PERF**

	PERF	**DISC**

C	0.1192	0.8657
	(2.6118)	(3.6038)
DISC	-0.0572**	
	(2.2432)	
PERF		9.1218**
		(1.8690)
RWCR (-1)	-0.0009	
	(-1.5069)*	
L_DEP	-0.0051	
	(-1.7754)***	
L_SIZE	0.0029	-0.0141
	(0.7253)	(-0.7365)
DISC(-1)		0.3370
		(2.8624)***
L_NPF		0.0010
		(0.1224)
R^2	0.1826	0.2471
S.E of Reg	0.0126	0.0745
Prob(F-stat)	0.1230	0.0370
DW	2.1638	2.1590

Table 3: **Panel estimation results**

	Pooled-Effect		**Fixed /Random Effects** @	
	PERF	**DISC**	**PERF**	**DISC**
C	0.1192	0.8657	0.1080	1.6085
	(2.6118)	(3.6038)	(2.1138)	(3.9029)
DISC	-0.0646		-0.0650	
	(-2.2432)**		(-2.2613)**	
PERF		-1.7763		-1.1103
		(-1.8690)		(-1.1234)
RWCR (-1)	-0.0009		-0.0012	

	(-1.5069)		(-1.7457)*	
L_DEP	-0.0050		-0.0071	
	(-1.7755)*		(-2.1069)**	
L_SIZE	0.0029	-0.0141	0.0058	-0.0992
	(0.7253)	(-0.7365)	(1.2752)	(-2.6954)***
DISC(-1)		0.3370		0.1961
		(2.8623)***		(1.4474)
L_NPF		0.0010		0.0573
		(0.1223)		(3.1144)***
R^2	0.1826	0.2471	0.1825	0.5692
S.E of Reg	0.0126	0.0745	0.0115	0.0653
Prob(F-stat)	0.1230	0.0370	0.1232	0.0168
DW	2.1638	2.1590	2.5173	2.7549

Number in parentheses is the t test,* Significant at 10%, **Significant at 5% and ***Significant at 1%
P- Prob (F-Test)

@ The results for fixed effect shows better estimations for DISC model while for PERF model, random effects is slightly better. To test the best model between the fixed and random effects thus, we used Hausman test through the random effect equations. PERF model are not significant as the hypothesis null for random effects equations is rejected (P> 0.01%). Thus, panel data estimations with fixed effects can explain better compare to random effects on DISC model. However, for PERF model, due to the hypothesis null for random effects equations is not rejected, random effect model gives better explanations.

granger-causility test between DISC and PERF shows H null is rejected thus DISC do NOT granger cause performance. An explanation could be made is , disclosure level lead to changes in performance while performance are not.

5.2 PERF

From the table 2 (Fixed/Random effect column) above, the model of PERF is considered as weak model with the significant level at only 15%. The individual coefficient of the estimated model for DISC, and L_DEP shows negative relationship and both is significant at least at 95% confidence level. It suggests that most of variables is inconsistent with the expectations in the theory where less disclosure (DISC) leads to better performed banks. There is also an evidence of negative relationship between L_DEP and PERF where, a decrease in deposit leads to an increase in performance which is inconsistent with the theory.

5.3 DISC

When we control for the the lag variable (DISCi(t-1)), in DISC model, the results is significant (p<5%). Thus, L_NPF, PERF AND L_SIZE collectively could explain changes in disclosure quality as predicted in previous study. For the individual coefficient, the non-performing loans and size is strongly significant in explaining the relationship with disclosure (p<1%). The non-performing loan is positively determined disclosure level which is inconsistent with the theory. On the other hand, banks surprisingly have negative relationship with disclosure level. Such relationship is also inconsistent with most of the previous empirical findings. Further, our result shows performance of the banks is not significant thus, performance do not significantly determined disclosure level.

Concluding the above findings, disclosure is one of the factor that determine performance but performance do not lead to an increase in disclosure level. Since our expectation that the two model PERF and DISC given that an efficient result is not obtained with neither panel regression model nor pooled OLS, it is interesting to

extent further with simultaneous equations model using the 2SLS. It is also expected an efficient result is will be obtained due to endogeneity bias in the former model is solved. Further, a simultaneous equation with 2SLS is also performed to test whether there is an interdependent relationship of the variables. Table 3 below shows result of panel 2SLS.

From table 3, there is a significant result on DISC and PERF which shows that the interdependent of this variables is likely to be existed in panel 2SLS analysis. The relationship between disclosure and performance in PERF and DISC model shows both are significant (PERF and DISC: $p<5\%$). Thus, the interdependent relationship between the variables exists. Further, for causality effect, disclosure causes performance whereas performances do not cause disclosure.

6 DISCUSSIONS

The role of disclosure as a monitoring mechanism is seen to contribute for bank performance. It is evidenced when disclosure and performance is endogenously determined, both effect each others. However, as negative relationship is documented (when PERF is endogenous), benefit of disclosure are questionable. Thus, it is difficult to draw conclusive evidence and possibly due to some limitations of the data. The limited sample of Islamic banks is also one of the possible reason. Besides, such findings might also be driven by the application of theory to our samples of banks, in particular to Islamic banks is different. Thus, most findings is inconsistent with the theory. Another possible reasons are on the measurement for performance that might need to be refined. The point to be highlighted with regards to performance is the risk factors. It might provide some explanation on why performance of Islamic banks is reduced with more disclosures. In this case, more information might associate with excessive risks exposures on banks side thus, affects banks performance.

The final point is the negative relationship between RWCR and PERF. The lagged variable of RWCR could be one explanation as previous years risk level lead to an effort directed to increase their performance. Thus, banks has fulfilled them which was shown on the following years performance. It might also be interestingly interpreted, Islamic banks opt for more Risk-weighted assets that reduces their RWCR which then boost their performance. Or in structuring the capital structure, Islamic banks have opted for an expensive cost of capital which is contributed by the depositors.

7.0 CONCLUSIONS

This study investigates simultaneously the relations among disclosure and performance. A panel data estimation are first established and the result is analysed based on 3 effects, pooled, fixed and random. Subsequently, 2SLS analysis is performed aimed for an efficient result, solving the endogeinity biased and expected to provide interdependent relationship of performance and disclosure. Even though, it is difficult to draw possible conclusions based on the findings, a significant relation between in performance-disclosure relationship has been found. Hence, the results from the present study contribute to our knowledge on the interrelations of disclosure and bank performance in panel two stages least squares analysis. There are several limitation that are found among others, due to samples constraints in Islamic banks data which might hinder better results. However, with simultaneous equation analysis on such type of panel data, it serves as the motivations for us and others to study further. It also lead us to extend the study and reanalyze using recent methods considering Islamic banks area of empirical findings still at an infancy stages. Meanwhile, such industry is the type that receives considerable attentions nowadays. In additions, the importance of market discipline cannot be ignored as emphasized by the regulatory agency. To enhance market discipline, the role of disclosure should be taken in great importance for the benefit of the industry as well as to the nation, as a whole.

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