



Taiul Ariffin Masron et al./ Elixir Social Studies 123 (2018) 52029-52034 Available online at www.elixirpublishers.com (Elixir International Journal)

# **Social Studies**



Elixir Social Studies 123 (2018) 52029-52034

# Islamic Banking and Country's Institutional Quality

Tajul Ariffin Masron, Nurhafiza Abdul Kader Malim and Anwar Allah Pitchay

Universiti Sains Malaysia, Malaysia.

ARTICLE INFO

Article history: Received: 30 August 2018; Received in revised form: 8 October 2018; Accepted: 18 October 2018;

# Keywords

Islamic Banking. Institutional Quality, OIC Countries, Dynamic Panel Data.

# Introduction

Islamic finance had been resurgent in 1975 in the Middle East with the first Islamic commercial bank was developed which is Dubai Islamic Bank. Four years later, the Islamic insurance companies as known as Takaful had been operated in Sudan and Dubai (Bakar, 2010). In the recent years, more than 75 countries had acknowledged the practices of the 300 Islamic financial institutions inclusive nonmember of Organization of Islamic Cooperation (OIC) such as United Kingdom, Singapore, Japan, South Korea, France, Hong Kong, Australia Luxembourg and Mauritius (Bakar 2010; Islamic Financial Services Board, 2015a). Iran and Sudan operate fully Shariah-compliant banking system. Seven other countries achieved systemic importance in Islamic banking system namely, Brunei, Kuwait, Malavsia, Qatar, Saudi Arabia, the United Arab Emirates (UAE) and Yemen. These countries apply dual banking system. It is where the Islamic banking sector operates together with the conventional banking sector. All of these countries are classified as systemic importance because they are able to have achieved at least 15% market share of total banking assets for their Islamic banking and/or hold more than 5% of the total global Islamic banking assets (Islamic Financial Services Board, 2015b). Turkey, Pakistan, Bangladesh, Bahrain and Jordan are showing the upward growth of the Islamic finance market. Their growth has been geared by several development initiatives and legal supports from the government agencies and regulatory bodies inclusive the formulation and implementation of blueprints to achieve a wider market share for Islamic finance. In addition, several non-Islamic countries have shown their interests in the Islamic banking that comprises of developed countries like USA, France, UK, Japan, China and Russia and developing countries such as South Korea, India, the Philippines and Thailand as well as under-developed countries, for instances, Kenya, Burkina, Niger, Nigeria and Guinea (Islamic Financial Services Board, 2015b).

Globalisation has improved the development of overall Islamic finance architecture. As shown in Table 1, Islamic Development Bank (IDB), Islamic Financial Services Board

ABSTRACT

from providing funds for investment activities and eventually promoting economic development, it is interesting to understand the implication of Islamic finance development on the development of institutional quality of host country. With Islamic finance is based on Islamic values of no oppression, profit and loss sharing and helpinghand concept, it is expected that the rapid growth of Islamic finance will help to promote good institutions. Hence, focusing on several OIC countries with Islamic banking sector, this study examines the role of Islamic banking on institutional quality for the period between 2001 and 2015. The result shows the institutional quality depends on economic growth and Islamic finance development. Policy makers are encouraged to spur economic activity and the growth of Islamic banking in promoting good institutions.

Islamic finance is currently the fastest growing segment in the world economy. Apart

#### © 2018 Elixir All rights reserved.

(IFSB), Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI). International Islamic Financial Market (IIFM), and the International Islamic Liquidity Management (IILM) Corporation have been actively involved in crafting instruments and mechanisms, enhancing awareness, and formulating basis for practical standards and Shariah governance. In order to develop human capital in the industry, many higher academic and training institutions offer Islamic finance academic programs. The summary of the ecosystem of Islamic financial services in the industry is depicted in Table 1.

Table 2 highlights the rapid development and growth of Islamic banks in several OIC countries which are actively involving in Islamic finance industry. Relative to 2006, in less than 10 years, most OIC countries have enjoyed the exponential increase in net income of Islamic banks such as Bangladesh, Indonesia, Lebanon, Malaysia, Pakistan and Turkey. This rapid growth could be well explained by the establishment of supporting framework or governance, leading to increased reliability and trust received from the public.

While this rapid development of Islamic finance as shown in Table 2 and its corresponding supporting services as summarized in Table 1 has resulted in a better or high quality of governance across the Islamic finance industry, our biggest concern is whether this comprehensive and good governance will also bring an improvement in the country's institutional quality.

<sup>&</sup>lt;sup>1</sup>Institutional quality and governance quality in this study are treated as the same (see Zhuang et al., 2010). Governance at national level refers to "National governance, the main focus of this chapter, is broadly defined as the exercise of economic, political and administrative authority to manage a country's affairs at all levels, and it comprises mechanisms, processes and institutions, through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences (United Nations, 2016)."

No.	Islamic Financial Services	Examples
1.	Global Islamic Financial Infrastructure	i.Islamic Financial Services Board (IFSB).
	Institutions <sup>a</sup>	ii. Islamic Development Bank (IDB).
		iii.International Islamic Liquidity Management Corporation (IILM).
		iv. Accounting and Auditing Organization for Islamic Financial
		Institutions (AAOIFI).
2.	Multilateral development institutions	i.Islamic Development Bank (IDB).
		ii. Islamic Corporation for the Development of the Private Sector (ICD).
		iii.World Bank.
3.	Ministries and Regulatory Bodies	i.Securities Commission Malaysia (SC).
		ii. Indonesia Financial Services Authority.
		iii.UK Islamic Finance Secretariat (UKIFS).
4.	Shariah Authorities and Scholars	i.Higher Shari'ah Authority (UAE).
		ii. International Islamic Fiqh Academy
5.	Rating Agencies	i.Malaysian Rating Corp Bhd (MARC).
		ii. RAM Rating Services Bhd (RAM).
6.	Stock Exchanges, Commodity Trading Platforms	i.Bursa Malaysia.
		ii. London Stock Exchange.
7.	Training, Education and Research	i.Dubai Centre for Islamic Banking and Finance.
		ii. Islamic Banking and Finance Institution Malaysia (IBFIM).
8.	Information, Services, Media and Associations	i.IFSB.
		ii. Institute of Islamic Banking and Insurance (IIBI).

Table 1. The Ecosystem of Islamic Financial Services in the Industry.

Source: <sup>a</sup>Islamic Financial Services Board (2015a).

<sup>b</sup>www.mifc.com/index.php?ch=28&pg=72&ac=174&bb=uploadpdf.

<sup>c</sup>www.inceif.org/islamic-finance/key-markets.

	Start	2006	2010	2013		Start	2006	2010	2013
Afghanistan	2004	0.1	22.3	37.7	Lebanon	2005	0.1	2733	3369
Albania	1994	0.0	11.9	7.4	Malaysia	1983	-3.6	571.7	838.7
Algeria	1990	0.001	0.1	0.1	Mauritania		0.4	43.8	32.23
Bahrain	1979	0.001	59.4	249.1	Oman	2011	0.03	1.6	2.6
Bangladesh	1983	-38.3	1031	3546	Pakistan	1960	2.1	596.7	1600
Djibouti	1998	0.0	0.0	14.0	Qatar	1982	4.4	333.2	629.0
Egypt	1977	-0.03	49.0	81.2	Saudi Arabia	1973	16.7	771.9	305.1
Indonesia	1992	31.2	9343	20043	Sudan	1929	34.0	81.1	21.3
Iran	1929	1632	527007	3013	Turkey	1983	257.4	32472	76296
Iraq	1992	0	343.4	307.6	UAE	1975	2.5	229.2	267.4
Jordan	1978	2.2	69.3	321.2	Uzbekistan	2004	4.1	246.1	664.7
Kuwait	1977	0.4	16.7	399.4	Yemen	1995	2.5	756.6	185.0

As better governance offers a more transparent transaction, leading to less confusion and conflict among the participants and financial institutions, and eventually to the performance and return to investment in Islamic financial institutions, will this boost confident to public at large and policy makers to be more serious on improving the level of country's governance? A substantial literature examines the conditions under which successful 'first wave' economic stabilisation and adjustment reforms were introduced and sustained in the 1980s (see Haggard and Webb, 1994; Harvey and Robinson, 1995; among others). Nonetheless, there is much less literature available to identify sources of governance reforms when most of the developing countries suffer from low quality governance such as high corruption, political instability and ineffective government as can be seen in the next section. Therefore, the agenda in this study is to find out the potential role of the non-financial impact of Islamic finance on the host country, which refers to its impact on institutional quality.

The organization of this study is as follows: the next section discusses the brief information about the level of institutional quality of several OIC countries, in which Islamic finance is being practised. The third section offers review on past studies related to determinants of institutional quality. The fourth section explains the methodology employed in this study. The fifth section presents the results and the last section concludes.

# Economic Background - Institutional Quality of OIC countries

Table 3 summarizes the performance of institutional quality in OIC countries. We divide the countries into three categories initially, namely improving IQ, fluctuating IQ and worsening IQ. Later, we further divide the countries with fluctuating IQ into two categories, namely fluctuating but ended with better or worse IQ relative to IQ in 1996.

From the Table 3, only 12 OIC countries recorded consistent improvement in IQ level as in Panel 1. UAE and Qatar are the two best countries with the IQ score exceeding 3.0. Even though countries in Panel 1 are under the category of improving IQ, Afghanistan, Iraq and Tajikistan scored poorly for 1996 with IQ level was less than 1. Improvement is rather faster for Tajikistan but relatively slow for Iraq and Afghanistan with the latest IQ level is barely passing 1. The scores are not so surprising for countries trapped under war or internal conflict.

For the Panel 2 of worsening IQ, most of the countries under this list were having relatively high IQ with Benin, Egypt, Gambia, Lebanon, Mauritius and Tunisia scoring more than 2.0. Moreover, albeit dropping, Benin and Tunisia are relatively on the better side than most of improving OIC countries with the level of IQ in 2014 remains at more than 2.0. Moving on to countries with fluctuating but ended up with worsening IQ in 2014, there are 22 countries in this list

	1996	2007	2014		1996	2007	2014		1996	2007	2014
Panel 1	: Impro	ving IQ		Panel 3: Fluctuating, Worsening IQ				Panel 4: Fluctuating, Better IQ			
Afghanistan	0.43	0.81	1.01	Bahrain	2.54	2.66	2.46	Algeria	1.41	1.74	1.64
Albania	1.76	2.20	2.48	Bangladesh	1.80	1.58	1.72	Burkina Faso	1.96	2.20	1.97
Azerbaijan	1.42	1.69	1.82	Brunei	3.21	2.96	3.13	Cameroon	1.37	1.64	1.56
Indonesia	1.98	1.98	2.29	Chad	1.46	1.03	1.19	Comoros	1.65	1.43	1.70
Iraq	0.70	0.76	1.04	Ivory Coast	2.20	1.20	1.84	Guinea-Bissau	1.12	1.51	1.25
Kazakhstan	1.64	1.96	2.05	Djibouti	1.72	1.84	1.67	Malaysia	2.99	2.87	3.02
Qatar	2.51	2.89	3.11	Gabon	2.12	1.88	1.96	Niger	1.43	1.90	1.79
Saudi Arabia	2.09	2.14	2.26	Guinea	1.42	1.00	1.40	Senegal	2.27	2.15	2.41
Sierra Leone	1.19	1.76	1.76	Guyana	2.25	2.13	2.15	Somalia	0.28	0.05	0.28
Tajikistan	0.84	1.45	1.53	Iran	1.68	1.49	1.51	Sudan	0.87	0.99	0.89
Tonga	n.a.	2.23	2.59	Jordan	2.50	2.55	2.42	Suriname	2.18	2.37	2.36
UAE	2.90	3.01	3.19	Kuwait	2.74	2.76	2.33	Turkey	2.23	2.47	2.39
Panel 2: Worse	ening IQ	)		Kyrgyz	1.99	1.56	1.73	Uganda	1.78	1.96	1.88
Benin	2.39	2.29	2.16	Libya	1.34	1.63	0.76	Uzbekistan	1.26	1.14	1.38
Egypt	2.24	1.96	1.58	Maldives	3.06	2.22	2.37				
Gambia	2.04	2.04	1.87	Mali	2.08	2.30	1.67	Panel 5: Averag	e Score <sup>a</sup>		
Lebanon	2.12	1.70	1.74	Morocco	2.45	2.14	2.24	OIC countries	1.87	1.86	1.85
Mauritius	2.27	1.93	1.67	Mozambique	2.11	2.18	1.96	Panel 1	1.57	1.91	2.09
Pakistan	1.71	1.50	1.47	Nigeria	1.33	1.37	1.31	Panel 2	2.12	1.92	1.72
Tunisia	2.45	2.41	2.23	Oman	2.75	2.78	2.74	Panel 3	2.09	1.90	1.89
Yemen	1.70	1.52	1.03	Togo	1.78	1.54	1.69	Panel 4	1.63	1.73	1.68
Syria	1.71	1.54	0.74	Turkmenistan	1.55	1.10	1.23				

Table 3. Institutional Quality in OIC countries.

Note: The scores have been transformed by adding 2.5 to make them all positive values. The range of IQ is spanning from 0 (the worst IQ) to 5 (the best IQ). The calculated IQ is based on the averaged score of 6 elements of IQ, namely *control of corruption, government effectiveness, rule of law, regulatory quality, political stability* and *voice & accountability*. <sup>a</sup> The average scores in 1996 for OIC countries and Panel 1 are without Tonga. Source: Worldwide Governance Indicators (World Bank, 2018).

as shown in Panel 3 of Table 2. Bahrain, Brunei, Oman and Jordan experienced the least drop and maintained their level of IQ at close or higher to 3.0. Libya is the only country who suffered the drop of IQ to below that 1.0, while Chad, Turkmenistan and Nigeria recorded drop that brings their IQ close to 1.0. Finally, 15 OIC countries experienced fluctuating but better IQ in 2014 with only Malaysia recorded IQ level above 3.0 as demonstrated in Panel 4. Similar to the group of improving IQ, most of the countries under the fluctuating but ended up with better IQ in Panel 4 are those with low quality of IQ. Even majority of the countries in this list failed to reach IQ better than 2.0 with exception to Malaysia, Senegal, Suriname and Turkey. Somalia is actually returned to its IQ level in 1996, or no change in IQ. Sudan recorded a very slow improvement, jumping from 0.87 to 0.89 within almost 20 years from 1996 to 2014. Guinea-Bissau also shared almost the same story as Sudan and Somalia with the recent IQ level barely passed 1.0.

To summarize, in overall, as shown in Panel 5, most OIC countries suffer serious low IQ level with only 4 countries managed to score above 3.0. The OIC average score of IQ is merely 1.85, which is considered as poor.<sup>2</sup> What is more surprising is that the average score in all groups, including the overall OIC in 2007 is far better than the score in 2014. This implies that relative to 2007, OIC fared worse in 2014. This is therefore, the serious issue that needs urgent attention. The immediate solution is definitely welcome but there is no study so far dealing with poor IQ issue in OIC countries.

#### Literature Review

There are surprisingly limited literature available in investigating the factors that can help to improve, or at least the to provoke the strong desire to further improve national institutional quality. Rather institutional quality is observed as critical to assure that financial resources such as foreign direct investment, banking credit and others can efficiently affect economic growth (e.g. Arestis & Demetriades, 1997; Alfaro et al., 2004; Law & Azman-Saini, 2012; Le et al., 2016).

Easterly et al. (2006) could be among the first to highlight the importance of the study on the institution. Easterly et al. (2006) start by stressing the most pressing issue and need immediate attention which is about the constraints facing most developing countries to reform their policy. Focusing on social cohesion, Easterly et al. (2006) find that shaping social cohesion is certainly crucial in refining the institutional quality and suggest several channels through which social cohesion can be first to be refined such as education. The role of the state has also been stressed as crucial in charting the context and climate within which civil society is organized. Kandil (2009) could be the among the recent study to examine this issue in MENA countries. Nevertheless, the effort is limited to examine various aspects of institutional quality among them as the main agenda of the study is to examine the effect of institutional quality on economic growth. Alonso, and Garcimartin (2010), on the other hand, find that GDP and tax system as crucial to improvement in institutional quality. Javed (2016) focuses on the role of various freedom indices on institutional quality.

With limited literature on determinants of institutional quality, this study attempts to complement the literature by highlighting the potential role of to be played by Islamic financial system, especially via the banking system in which embedded in it the good governance leading to the rapid development and profitability of the industry.

<sup>&</sup>lt;sup>2</sup>Poor refers to the score that below the average score of 2.5 (the mid-point of IQ index).

#### 52032

#### **Methodology** Our model is as follows:

 $\ln IQ_{it} = \alpha_0 + \alpha_1 \ln GDPPC_{it} + \alpha_2 \ln IF_{it} + \varepsilon_{it}$ 

Where IQ stands for institutional quality, GDPC is the gross domestic product (GDP) per capita and IF is Islamic financial development. We do not follow Javed (2016) to include various freedom indices as we believe that freedom index is by default part of IQ itself. The tax system as suggested by Alonso and Garcimartin (2010) is also excluded due to data constraint. Similarly, although social cohesion by Easterly et al. (2006)) is definitely an interesting factor, unfortunately, the data is not available to the latest date and therefore, excluded from the analysis.

IQ will be proxied by average six elements of IQ, namely: (i) control of corruption, (ii) government effectiveness, (iii) regulator quality, (iv) rule of law, (v) political stability and (vi) voice and accountability. Real GDP per capita will be used to proxy GDP per capita while total financing by Islamic banks will represent Islamic financial development. IQ will be collected from Worldwide Governance Indicators (World Bank, 2018b), real GDP is from World Development Indicators (World Bank, 2018a), and total financing is gathered from Bankscope. This study utilises the data from 25 countries which join the OIC for the period from 2006 to 2015, which are listed in Table 4 below. These countries had been chosen due to long practices of Islamic finance in the countries although the income inequality levels in those countries are not impressive. In fact, some countries inevitably have to be excluded due to poor information on income inequality although they are practicing Islamic finance. All variables enter in log form.

Table	4.	List	of	sample	countries.
Lanc	-т.	LISU	UL.	Sampic	countries.

Country							
Afghanistan	Jordan	Senegal					
Albania	Kazakhstan	Sudan					
Azerbaijan	Kyrgyzstan	Syria					
Bangladesh	Malaysia	Tunisia					
Djibouti	Maldives	Turkey					
Egypt	Mauritania	United Arab Emirates					
Indonesia	Nigeria	Yemen					
Iran	Pakistan						
Iraq	Qatar						

Given the nature of our panel data, we adopt general method of moments (GMM) panel estimation techniques to estimate the above equation. This is because the standard panel models like the pooled OLS regression, the fixed-effect and the random-effect models are not appropriate due to the presence of country-specific effects and the lagged dependent variable or potential endogeneity of explanatory variables. The GMM estimator helps to tackle the issue of endogeneity, autocorrelation and unobserved heterogeneity to produce efficient estimates. Arrelano and Bond (1991) suggested to first-difference the regression equation to eliminate the country-specific effects. This method is known as difference GMM estimation. Differencing eliminates the bank specificeffects but at the cost of introducing correlation between the error terms and the lagged dependent variable as well as the endogeneity problem. In addressing the correlation and endogeneity problem, Arellano and Bond (1991) suggested the use of lagged values of the explanatory variables in levels as instruments in the estimation.

Arrelano and Bond (1991) proposed a two-step estimator using the moment conditions to produce consistent and efficient parameter estimates under certain assumptions. In the first step, the error terms are assumed to be both independent and homeskedastic across banks and over time. While, in the second step, relaxing the assumptions of independence and homoscedasticity, a consistent estimate of the variance-covariance matrix is constructed using the residuals obtained in the first step. It is argued that the application of two-step estimator in large sample is more efficient relative to the one-step estimator as it uses optimal weighting matrix (Blundell and Bond, 2000). Besides, Arrelano and Bond (1991) showed that one-step estimator is not robust to heteroskedasticity. Hence, the use of two-step in large samples can lead to efficient estimates.

However, the difference estimator suffers from several econometric problems. The difference GMM estimation has been criticised for generating inefficient estimates because it eliminates a large amount of information in the level relationship as well as the relationship between the levels and first differences (Ahn and Schmidt, 1995). Moreover, Blundell and Bond (1998) showed that when the explanatory variables are persistent over time, the lagged levels of these variables become weak instruments.

In order to overcome the problems in difference GMM, Arellano and Bover (1995) and Blundell and Bond (1998) propose system GMM estimation as an alternative estimator that combines the level model with the difference model. The lagged differenced variables are used as instruments in the level regressions and the lagged level variables are used as instruments in the difference regressions. Its advantage over difference GMM includes the significant improvements in efficiency of estimation that reduces potential biases and imprecision associated with difference estimator especially when the variables are persistent (Arellano and Bover, 1995; Blundell and Bond, 1998).

The consistency of the GMM estimator depends on two specification tests, the Sargan over-identifying restrictions and a serial correlation test in the disturbances. Failure to reject the null of the Sargan test would imply that the instruments are valid and the model is correctly specified. In terms of the serial correlation test, one should reject the null of the absence of the first order serial correlation (AR1) and not reject the absence of these second order serial correlation (AR2).

#### Results

We start our analysis with descriptive analysis. IQ is with the minimum value of zero as we transform the data into nonnegative value by summing them with 2.5. As far as the sample of OIC countries employed for analysis is concerned, we observed from Table 4 that the variation is the least relative to other variables. Level of Islamic financial development, as measured by total financing by Islamic banks, has been the most dispersed. This value of standard deviation is consistent with the information in Table 2 that only some OIC countries have been progressing relatively well, while the others, especially those new starters are in the midst of searching for more growth.

Table 5. Descriptive analysis.						
Mean Standard deviation						
lnIQ	3.353	0.617				
lnGDPC	8.685	2.073				
lnIF	7.479	4.286				

Correlation analysis presented in Table 5 also shows no serious multicollinearty problem. The positive correlation among the three variables also in line with our expectation although correlation is not a formal causal analysis. Out of three correlation, IQ versus IF offers the highest coefficient of correlation, signaling the potential positive role of IF to promote further improvement in IQ.

Table 6. Correlation Analysis.						
lnIQ lnGDPC lnIF						
lnIQ	1					
lnGDPC	0.234	1				
lnIF	0.368	0.182	1			

Table 6 presents the regression results for difference GMM and system GMM. The results passed the Sargan and serial-correlation tests, indicating the instruments are valid and no serial correlation. The lagged variable of institutional quality is positive and significant in all estimations suggesting that the previous institutional frameworks have a positive impact on the current institutional frameworks. Considering the macroeconomic variable, the result shows a positive and significant relationship between the GDP per capita and institutional quality in difference and system GMM but their significance level differ. This result indicates that the higher economic growth may lead to better institutional quality. Higher GDP per capita reflects better economic performance therefore lead to a greater demand for financing and investment activities. The financing instruments have supported economic activity in various economic sectors such as manufacturing, construction, oil and gas and healthcare to spread economic prosperity. Therefore, economic activity requires better institutions through effective government, regulations, protection of property rights and contracts that can facilitate business activities. The findings support the work by Islam and Montenegro (2002), Chong and Calderon (2007), Alonso and Garcimartin (2010) and BenYishay and Grosjean (2014), suggesting that higher economic development promotes good institutions.

	DIFF	-GMM	SYS-GMM		
	1-step	2-step	1-step	2-step	
lnIQ <sub>t-1</sub>	0.330	0.249	0.340	0.157	
	[1.972]*	[2.406]***	[4.326]***	[4.09]***	
lnGDPC	0.138	0.204	0.117	0.217	
	[1.303]	[2.052]*	[2.335]**	[3.608]***	
lnIF	0.001	0.001	0.002	0.001	
	[2.014]*	[1.878]*	[1.994]*	[2.031]*	
		Model	Criteria		
Hansen	0.145	0.574	0.210	0.413	
AR(1)	0.045**	0.025**	0.062*	0.021**	
AR(2)	0.590	0.934	0.345	0.870	

Table 7. Regression Analysis [Dep. Var. = lnIQ].

**Note**: Asterisks \*, \*\*, and\*\*\* denotes 10%, 5%, and 1% level of significant respectively. Figures in [] stand for *t-value*. The values of Hansen and AR stand for *p-value*.

The impact of Islamic financial development on institutional quality in difference GMM remains similar to the system GMM. Interestingly, the analysis indicates the positive and significant role of Islamic financial development in promoting further improvement in IQ. The rapid development of Islamic banking in OIC countries demands good institutions that may help indirectly to enhance the OIC countries' IQ levels.

Finally, we offer a robustness test to the findings in Table 7 by adding the equation to have two more explanatory variables which are confirmed by past studies as important. The role of FDI, albeit limited studies, has been found as significantly affecting FDI in Fukumi and Nishijima (2009), Ali et al. (2011), Seyoum (2011) and Badinger and Nindl (2014).<sup>3</sup>

The inclusion of trade is justified by also limited studies such as Levchenko (2007), Ali et al. (2011) and Seyoum (2011). In general, both FDI and trade are hypothesized to positively affect institutional quality. The results of both are presented in Table 7. While the effect of trade is consistent with past studies and statistically significant, the role of FDI turns out to be insignificant. One potential explanation could be that most OIC countries are received very less FDI relative to other parts of the world. Going back to our focal variable, which is on the effect of IF on IQ, we observe that the results are consistent with the model without 2 additional variables. Hence, we can conclude firmly that the development of Islamic finance industry has helped countries' IO to be better although the magnitude of the effect is almost negligible at this moment. This could be the fact that the Islamic finance industry has just started in most OIC countries and too small to be too impactful. Secondly, the choice of total financing by Islamic banks could also create bias in our results as the industry also encompasses Islamic capital market, and Islamic insurance (or takaful). Better governance framework in this industry which are constantly revised and improved may spark the interest of other sections in the economies to also follow the similar footstep in ensuring better transparency and eventually, quality of institution at large.

Table 8.	Regression	analysis -	- Augmented	Model	[Dep.
		Van I	101		

var. = IIIQ.								
	DIFF	F-GMM	SYS-GMM					
	1-step	2-step	1-step	2-step				
lnIQ <sub>t-1</sub>	0.219	0.004	0.340	0.157				
	[2.316]*	[2.215]**	[4.326]***	[4.09]***				
lnGDPC	0.351	0.322	0.117	0.217				
	[1.672]	[2.614]**	[2.335]**	[3.608]***				
lnIF	0.001	0.001	0.001	0.001				
	[1.973]*	[2.348]**	[1.970]*	[2.717]***				
lnFDI	0.078	0.067	0.135	0.095				
	[1.075]	[1.301]	[1.369]	[1.941]				
InTRADE	0.017	0.039	0.022	0.027				
	[1.841]*	[4.841]***	[3.664]***	[2.264]***				
	Model Criteria							
Hansen	0.514	0.447	0.224	0.291				
AR(1)	0.040**	0.037**	0.022**	0.039**				
AR(2)	0.666	0.457	0.514	0.187				

**Note**: Asterisks \*, \*\*, and\*\*\* denotes 10%, 5%, and 1% level of significant respectively. Figures in [] stand for *t-value*. The values of Hansen and AR stand for *p-value*.

#### Conclusion

Given the prolonged issue of low level of institutional quality in most OIC countries, which is expected to explain the low economic development in OIC countries has sparked interest for this study to be conducted. The rapid emergence of and interest on Islamic finance across the globe, on the other hand, has signaled its potential to be the new engine for a host country towards better institutional quality. Hence, this study investigates the role of Islamic finance development, represented by Islamic banking in influencing the institutional quality for Islamic banks in OIC countries over the period from 2001 to 2015.

The results confirmed that Islamic finance, which is backed by Islamic governance can help to improve countries' institutional quality. This can be done in several ways. Firstly, the better governance in Islamic finance industry, leading to impressive financial performance of industry players such as Islamic banks should convince many parties, especially policy makers on the importance of improving national institutional quality.

<sup>&</sup>lt;sup>3</sup>Badinger and Nindl (2014) focus on the effect of globalization, rather than FDI. Hence, this study can also be used to represent or justify the inclusion of trade as the second additional explanatory variable.

Secondly, all the steps taken by Islamic finance industry in arriving current high level of governance can also be compared and imitated by national policy makers in guiding and charting the steps towards having better national institutional quality.

## Acknowledgement

The first and second authors wish to thank Ministry of Higher Education for granting research grant under Fundamental Research Grant Scheme (FRGS) No.203/ PMGT/67115.

### References

Ahn, S.C., & Schmidt, P. (1995). Efficient estimation of models for dynamic panel data. *Journal of Econometrics*, 68(1), 5-27.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S. and Sayek, S. (2004). FDI and economic growth: the role of local financial markets. *Journal of International Economics*, 64, 89-112.

Ali, F., Fiess, N., & MacDonald, R. (2011). Climbing to the top? Foreign direct investment and property rights. *Economic Inquiry*, 49(1), 289-302.

Alonso, J.A. and Garcimartin, C. (2010). The determinants of institutional quality: More on the debate. *Journal of International Development*, 25(2).

Arestis, P. and Demetriades, P. (1997). Financial development and economic growth: Assessing the evidence. *The Economic Journal*, 107(May), 783-799.

Arellano, M., and Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies*, 58, 277-297.

Arellano, M., and Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, 68, 29-51.

Badinger, H. and Nindl, E. (2014) Globalization and Corruption, revisited. *World Economy*, 37(10), 1424-1440.

Bakar, M.D. (2010). Jurisprudence of Screening in Contemporary Islamic Finance Architecture. *Dow Jones Islamic Market Indexes Newsletter*.

BenYishay, A., & Grosjean, P. (2014). Initial endowments and economic reform in 27 post-socialist countries. *Journal* of Comparative Economics, 42(4), 892-906.

Blundell, R., and Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. Journal of Econometrics, 87, 115-143.

Blundell, R. and S. Bond. (2000). "GMM estimation with persistent panel data: an application to production functions." Econometric Reviews, 19(3), 321-340.

Chong, A., & Calderon, C. (2000). Causality and feedback between institutional measures and economic growth. *Economics & Politics*, *12*(1), 69-81.

Easterly, W., Ritzen, J. and Woolcock, M. (2006). Socia cohesion, institutions, and growth. *Economics & Politics*, 18 (July), 103-120.

Fukumi, A., & Nishijima, S. (2010). Institutional quality and foreign direct investment in Latin America and the Caribbean. *Applied Economics*, *42*(14), 1857-1864.

Haggard, S. & S.B. Webb (eds.), 1994, Voting for reform: Democracy, political liberalization, and economic adjustment, New York: Oxford University Press.

Harvey, C. and M. Robinson (1995), 'Economic Reform and Political Liberalisation in Uganda', IDS Research Report 29, IDS at University of Sussex.

Islam, R., & Montenegro, C. E. (2002). What determines the quality of institutions?. *Policy Research Working Paper WPS2764*, The World Bank.

Islamic Financial Services Board. (2015a). *Islamic Finance for Asia: Development, Prospects, and Inclusive Growth.* Kuala Lumpur: Islamic Financial Services Board.

Islamic Financial Service Board. (2015b). *Islamic Financial Service Industry: Stability Report.* Kuala Lumpur: Islamic Financial Services Board.

Javed, O. (2016). Determinants of institutional quality: A case study of IMG programme countries. In: The Economic Impact of International Monetary Fund Programmes. Contributions to Economics. Springer, Cham.

Kandil, M. (2009). Determinants of institutional quality and their impact on economic growth in the MENA region. *International Journal of Development Issues*, 8(2), 134-167.

Law, S.H. and Azman-Saini, W.N.W. (2014). Institutional quality, governance, and financial development. *Economic Governance*, 13, 217-236.

Le, T-.H., Kim, J. and Lee, M. (2016). Institutional quality, trade openness, and financial sector development in Asia: An empirical investigation. *Emerging Markets Finance & Trade*, 52, 1047-1059.

Levchenko, A.A. (2007). Institutional Quality and International Trade. Review of Economic Studies. 74 (3), 791-819.

Seyoum, B. (2011). Informal institutions and foreign direct investment. *Journal of Economic Issues*, 45(4), 917-940.

World Bank (2018a). World Development Indicators. Retrieved from https://data.worldbank.org/products/wdi.

World Bank (2018b). Worldwide Governance Indicators. Retrieved from http://info.worldbank.org/governance/wgi/index.aspx#home.