

# Does Sukuk market development promote economic growth?

Sukuk market  
development

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## Abstract

**Purpose** – This paper aims to explain the relationship between sukuk market and economic growth. In this context, the study investigates the impact of sukuk market development on economic growth for nine countries (Brunei, Indonesia, Jordan, Kuwait, Malaysia, Nigeria, Saudi Arabia, Pakistan and Turkey) which have Islamic finance and banking system.

**Design/methodology/approach** – The study analyzed the data of nine countries as Brunei, Indonesia, Jordan, Kuwait, Malaysia, Nigeria, Saudi Arabia, Pakistan and Turkey for periods between 2014Q1 and 2017Q4. As a part of gross domestic product, total sukuk export measured by the sukuk market and the sukuk density which was considered as annual sukuk export per country were used to determine sukuk market development. Inflation, trade deficit and financial stress series were used as control variables.

**Findings** – It was determined that there was a long-term cointegrated relationship between sukuk market development and economic growth. Sukuk volume and sukuk density had a positive effect on growth in the long run. One unit increase in sukuk volume increased growth by 0.5%, while increase in sukuk density increased growth by 1.7%. According to short-term relationships, it was seen that sukuk variables did not have an effect on growth. However, sukuk exports contributed positively to growth rates in the long run.

**Research limitations/implications** – The findings of this study are limited with nine countries (Brunei, Indonesia, Jordan, Kuwait, Malaysia, Nigeria, Saudi Arabia, Pakistan and Turkey). Also, the accessible data of sukuk market was used and the periods of 2014Q1–2017Q4 was analyzed in a study. Accordingly, future studies can find different results for different countries which has Islamic finance and banking system for different periods in the global market.

**Originality/value** – This study provides empirical findings to the related literature, and it proves that sukuk market development contributes positively to the economic growth of countries including Islamic finance and banking system in the long run.

**Keywords** Sukuk, Sukuk market, Islamic finance, Economic growth, Panel cointegration analysis

**Paper type** Research paper

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## Introduction

It is a fact that banking sector is so important for economic development and growth. Recent financial crises show that current conventional banking system has some deficiencies. In this point, Islamic banking system which is thought to be an alternative model has entered to banking sector of many countries (Gedikli and Erdoğan, 2016). Islamic banking system is not so old formally, but it is seen that Islamic finance and banking system achieved a great growth in the past decades (Zaher and Hassan, 2001). For example, total asset growth was US\$1.88tn and global Islamic banking assets were US\$1.493tn by 2016 [IFSB (Islamic Financial Services Board), 2017, p. 7]. Islamic banking and finance system can be explained through two basic theories. First theory determines that Islamic banks make a bridge between fund holders and businesses. According to banking theory, this role is similar to brokers who make a bridge between lenders and debtors. Second theory determines that Islamic banks finance equity in the same way as leasing finance and credit purchase. In this context, Islamic banks and conventional banks have some similarities (Al-Jarbi, 2007, p. 19). Essentially, Islamic banking works by *Sharia*, and this banking system corresponds to Islamic values and ethics (Ahmad and Shabbir, 2015, p. 4).

The term of Islamic banking is derived from Islamic finance model. Islamic finance model is responsible for values as “sustainable, ethical, social and ecological”, and these values make the model so different from conventional finance model (Khan *et al.*, 2017, p. 311). In addition, it is thought that Islamic finance model can provide social justice in a society through its profit-sharing approach (Noordin *et al.*, 2018). Although Islamic banking system was born in Muslim countries, this alternative banking system has been seen in Non-Muslim countries for a long time (Usai, 2017). Every country may use Islamic banking system, but they can change the model or transform the model based on their financial system. According to Yıldırım and Yıldırım (2018, pp. 266–268), current Islamic banking industry can be summarized as below:

- In Malaysia, the first Islamic bank was established in 1983. Then, Islamic financial institutes were organized. Malaysia has 25 banks in Islamic banking sector. With having Islamic assets, Malaysia is a leader country in Islamic banking sector in the World.
- Turkey works with Islamic banking system with interest-free banking model. Turkey has conventional and Islamic banking model in its banking and financial sector. Turkey has five interest-free banks in Islamic banking sector.
- Quaid-e Azam introduced Islamic banking system to Pakistan. Pakistan government gave six licensed Islamic banks in the sector.
- Iran included Islamic banking system by 1984 and Iran’s Central Bank took responsibility for Islamic banking, and it was transformed into Islam Central Bank.
- Bahrain is seen as a center for Islamic banks in the World. Islamic banks have been developed by Bahrain Monetary Agency. Bahrain which is the one of the biggest Islamic banking sector, has 28 Islamic banks and 16 Takaful firms.
- The Islamic Bank of Faisal was established in Sudan in 1977 and started operations in 1978. As a result of the successful Islamic banking system, all banks in Sudan have transformed into Islamic banks.

Islamic investment and financial products are quickly becoming a part of the world economy because most of the money comes from Muslim countries (Abdel-Khaleq and Richardson, 2006, p. 409). All financial transactions, products and services of Islamic banks should not include any of haram elements such as interest-based transactions, conventional

insurance, gambling and arms, alcohol and swine. The most common transactions among the financial instruments are “murabaha (sales contract), ijarah (leasing based) and mudarabaha (partnership)”. Sukuk is the most common Islamic capital market instrument based on these transactions (Thomson Reuters, 2017, p. 8). Sukuk which is based on *Shariah*'s principles, is seen as an *alternative investment instrument* in a global financial market (Alswaidan, 2013). The Sukuk Market represents the approval of the principles of Islamic Law (Sharif) in Islamic capital and money market transactions where the market must be free of prohibited elements or activities in Islam. Strict adherence to the principles of Islamic Law also means that all financial instruments used in the Islamic capital and the money market must be *Sharia* compliant [IIFM (International Islamic Financial Market), 2010]. Sukuk market is accepted the second-largest area of the Islamic finance industry and it has expanded to all global finance market through Muslim and non-Muslim countries (COMCEC [Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation], 2018, p. 16]. Many economies and corporates (private and government) has supplied and demanded sukuk in the global market that sukuk has been new alternative for investors (Shapoor *et al.*, 2015). The term of sukuk is based on plural of word *Sakk* (Arabic: *Sakk* سَكَّ, *Sukuk* سَكَّوْكَ). In the Arabic meaning, *sakk-sukuk* presents *Islamic investment trust certificate*. The sukuk term is accepted as a plural word and the modern usage of sukuk term presents Islamic Bonds and Debts in the context of *Shariah* principles (Alswaidan, 2013). In sukuk model, there are asset-backed securities for owners that the pre-agreed profit sharing rate is accepted by sides and there will no interest-based transaction in the whole process (Smaoui and Khawaja, 2017). In practical form, sukuk and bonds are similar. For example, both of bonds and sukuk have a nominal value but the working principles are different. Sukuk is based on Islamic law, and it works without interest, but bonds are conventional products and they works with interest (Ahroum and Achchab, 2017). Sukuk provides low-risk bonds for investors (Individual) and also it provides cheaper source of debts for companies (Rafay *et al.*, 2017).

The global sukuk market is almost under the domination of GCC (The Persian Gulf Corporation) and SEA (South East Asia) countries, UAE, Saudi Arabia, Bahrain, Qatar, Kuwait (from GCC countries) are leading the global sukuk market. Although Malaysia plays a major role in the global sukuk market, Indonesia and Singapore (from SEA countries) are also important players in the global sukuk market. On the other side, countries such as Pakistan, Japan, USA, UK, Germany, Turkey, Egypt and Gambia take attention in the context of developing sukuk market (Zolfaghari, 2017, p. 6). It can be said that larger sukuk market is related with larger economic size with higher Muslim population in a country (Smaoui and Khawaja, 2017). When the empirical relationship between financial development and economic growth is examined, it is seen that financial development causes an increase in growth performance (De Gregorio and Guidotti, 1995).

This study discusses the effect of sukuk market development on economic growth in a country. Sukuk is a long-term and medium-term capital market product for trading purposes. In the literature, studies dealing with the effects of sukuk on economic growth do not seem sufficient. Nayan and Norsiah (2014) investigated the relationship between sukuk market and economic growth and they determined that sukuk market had a positive effect on economic growth. Echchabi *et al.* (2016) investigated the pure impact of sukuk on economic development and they determined that sukuk issuance had a significant effect on the gross domestic product (GDP), gross capital formation (GDP) are brought together; otherwise, it had no effect for Saudi Arabia and the GCC. Smaouia and Nechi (2017) investigated the effect of sukuk market development on economic growth for all sukuk issuing countries in the sukuk industry. They determined that there was no strong

relationship between sukuk market and economic growth. But they suggested that sukuk market could promote financial inclusion through eliminating negative effects of religious self-exclusion. [Echchabi et al. \(2018\)](#) explained the effect of sukuk issuance on economic growth in GCC countries, and they found that the Sukuk financing has no significant effect on economic growth in GCC countries. [Mitsaliyandito and Arundina \(2018\)](#) investigated the effect of sukuk market on economic growth in Malaysia for the period of 2009–2016, and they found that sovereign sukuk had a positive effect on economic growth in a country. [Alkhawaja \(2019\)](#) investigated the effect of Sukuk on Turkish GDP for the period of 2010–2017, and he determined that sukuk issuance was dependent with country's economic situation. For example, Turkish sukuk market was affected by GDP drop in 2015 negatively but there was a positive effect in 2017. [Al-Raeai et al. \(2018\)](#) concluded that sukuk market development can influence economic conditions of GCC countries positively. [Abdelrahman \(2019\)](#) studied on the role of sukuk market development in Muslim countries and he concluded that sukuk market promoted economic development in some Muslim countries during periods of 2001–2017. Especially, Ijarah sukuk was seen more effective to support economic development through financing SMEs in Muslim countries.

The literature has supported that the sukuk market development will contribute Islamic financial market positively and also it will influence Muslim countries' economic development positively, too [COMCEC (Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation), 2018]. In this context, studies on sukuk market development are so important. The analyses can help countries to improve their sukuk market and develop their Islamic financial system in the long term. This study aims to explain the significant relationships between sukuk market and economic growth in developing countries. It is thought to provide useful information and empirical proofs for sukuk market development.

### The data and methodology

This study investigates the relationship between sukuk issuance and economic growth for countries as Brunei, Indonesia, Jordan, Kuwait, Malaysia, Nigeria, Saudi Arabia, Pakistan and Turkey. Accordingly, the annual data for the period 2014Q1–2017Q4 was used for nine exporters of Sukuk. The prediction equation is shown as below:

$$Growth_{it} = \beta_0 \mu_i + \beta_1 Sukuk_{it} + \beta_2 X_{it} + e_{it} \quad (1)$$

In [equation \(1\)](#), the growth is real growth per capita (2010 prices in US\$). Sukuk figures, total sukuk issuance and sukuk density in the financial system are handled as follows. The variable X in [equation \(1\)](#) is the control variables. Control variables are inflation, trade deficit and financial stress series. To investigate the unit root analysis of the series, first of all, the cross-sectional dependence of the series is required. If the cross-sectional dependence is not taken into account, the results may be deviated.

### Empirical findings

Pesaran CD test results are shown in [Table 1](#).

It is seen that sukuk variables, growth rate and inflation series have horizontal cross-sectional dependence but trade deficit series do not have horizontal cross-sectional dependence ([Table 1](#)). For this reason, sukuk variables, growth rate and stagnation status of inflation series are taken into consideration by Pesaran CADF test considering the cross-sectional dependence and stagnation status of inflation series will

be investigated by LLC and IPS unit root tests. Table 2 shows the Pesaran CADF test results.

It is seen that the other series except the trade gap series are stationary until five delays and the trade gap series are stationary at the level (Table 2). Table 3 shows the LLC and IPS test results for the inflation series.

When the LLC and IPS unit root test results of the inflation series are examined, the basic hypothesis cannot be rejected and the difference is determined to be stable. After investigating the stationarity of the series, the existence of a long-term causality relationship between the series was investigated by Westerlund and Edgerton (2007) bootstrap panel cointegration test. Westerlund and Edgerton (2007) test is a cointegration analysis that has strong results in small samples that allow intergroup and intergroup gradient dependence. The basic hypothesis is established in such a way that there is a co-integrated relationship. The test results are shown in Table 4.

The basic hypothesis is rejected when asymptotic results which do not consider horizontal cross-sectional dependence are examined (Table 4). However, when the bootstrap test statistics considering horizontal cross-sectional dependence are considered, the basic hypothesis cannot be rejected, and it is decided that the series are co-integrated. Short-term and long-term relationships can be considered after investigating the cointegrated relationships between the series.

Table 5 shows the PMG test results. Short- and long-term test statistics can be seen for sukuk volume and sukuk density. According to the test results, sukuk volume and sukuk density have a positive effect on growth in the long term. One unit increase in Sukuk volume contributes growth positively as 0.5%, while the increase in sukuk density contributes growth positively as 1.7%. When we examine short-term relationships, it is seen that sukuk variables did not have any significant effect on growth.

## Conclusion

The Islamic banking sector operates as the largest Islamic financial sector in global markets. The future of the sukuk market is estimated to be bright. Islamic financial model provides an alternative financial system and its alternative financial instruments for global investors through interest-free principle (Cevik and Bugan, 2018). Recent data shows that sukuk issuance has increased in the global market. For example, Malaysia expanded its sukuk issuance to such as Singapore and Turkey (Bhuiyan et al., 2019). On the other hand, The Islamic stock and fund market, which is outside the sukuk market, is still a niche sector (Sidio, 2017, p. 5). Sukuk has a significant impact on different economic and banking transactions as it has a predictable position in the stock markets and international currency (Ahmed et al., 2014). Recently, developed and developing Muslim and non-Muslim countries have begun to deal with sukuk, one of the best options to create funding beyond traditionalism. Sukuk has become an important tool to increase financing efficiently

Variables	CD test	p value
lsukukvol	11.50	0.000
sukukden	4.09	0.000
growth	3.24	0.001
open	3.46	0.001
inflation	0.29	0.771
finstress	24.00	0.000

**Table 1.**  
Pesaran CD test  
results

**Table 2.**  
Pesaran CADF test  
results

Variables	lags	Intercepts		Intercepts and trends		Variables	Intercepts		Intercepts and trends	
		t-stat	p value	t-stat	p value		t-stat	p value	t-stat	p value
Isukukvol	0	1.316	0.906	-0.638	0.262	open	-4.996	0.000	-6.316	0.000
	1	2.333	0.990	-0.154	0.439		-1.702	0.044	-3.883	0.000
	2	3.158	0.999	1.739	0.959		-0.663	0.254	-2.540	0.006
	3	5.130	1.000	2.278	0.989		1.742	0.959	-1.650	0.049
	4	12.641	1.000	11.822	1.000		12.641	1.000	11.822	1.000
Sukrukden	5	12.641	1.000	11.822	1.000		12.641	1.000	11.822	1.000
	0	4.452	1.000	3.537	1.000	fmstress	12.641	1.000	11.822	1.000
	1	4.685	1.000	4.630	1.000		12.641	1.000	11.822	1.000
	2	5.212	1.000	5.658	1.000		12.641	1.000	11.822	1.000
	3	2.956	0.998	5.684	1.000		12.641	1.000	11.822	1.000
Growth	4	12.641	1.000	11.822	1.000		12.641	1.000	11.822	1.000
	5	12.641	1.000	11.822	1.000		12.641	1.000	11.822	1.000
	0	0.934	0.825	1.909	0.972		12.641	1.000	11.822	1.000
	1	1.329	0.908	2.185	0.986					
	2	1.870	0.969	3.469	1.000					
	3	1.654	0.951	2.257	0.988					
	4	12.641	1.000	11.822	1.000					
	5	12.641	1.000	11.822	1.000					

and effectively during mobilization (Zulkhibri, 2015). If the challenges can be eliminated, the sukuk market development will expand Islamic finance industry as well as economic development (Hasan *et al.*, 2019).

In this study, the impact of sukuk market development on economic growth was examined for nine developing countries as Brunei, Indonesia, Jordan, Kuwait, Malaysia, Nigeria, Saudi Arabia, Pakistan and Turkey where Islamic finance was available in 2014Q1–2017Q4. The development of the Sukuk market has been addressed in two dimensions. As a part of GDP, total sukuk issuance measured by the sukuk market and

Stat.	Intercepts		Intercepts and trends	
	Stat.	Prob.	Stat.	Prob.
<i>LLC test</i>				
0.185		0.573	0.036	0.514
<i>IPS test</i>				
0.071		0.528	-1.211	0.112

**Table 3.**  
LLC and IPS Test results for inflation

Dependent variable: Sukuk volume			Dependent variable: Sukuk density		
<i>Intercepts model</i>					
lm statistic		3.660	lm statistic		4.112
bootst <i>p</i> -val		1.000	bootst <i>p</i> -val		1.000
asymp <i>p</i> -val		0.000	asymp <i>p</i> -val		0.000
<i>Intercepts and trends model</i>					
lm statistic		10.212	lm statistic		10.585
bootst <i>p</i> -val		0.840	bootst <i>p</i> -val		0.740
asymp <i>p</i> -val		0.000	asymp <i>p</i> -val		0.000

**Table 4.**  
Westerlund and Edgerton (2007) panel cointegration test results

Dependent variable: growth	Sukuk variables					
	Sukuk volume			Sukuk density		
	Coef.	Std.Err.	<i>p</i> value	Coef.	Std.Err.	<i>p</i> value
<i>Long-term relations</i>						
Sukuk variable	0.005	0.002	0.001	0.017	0.002	0.000
Inflation	0.000	0.000	0.001	-0.001	0.000	0.000
Open	-0.013	0.003	0.000	-0.007	0.001	0.000
Finstress	0.000	0.000	0.628	0.002	0.000	0.000
<i>Short-term relations</i>						
EC	-0.404	0.140	0.004	-0.320	0.108	0.003
DSukuk variable	-0.060	0.038	0.110	-0.019	0.020	0.340
Dinflation	-0.001	0.014	0.964	0.001	0.013	0.946
Dopen	-0.008	0.014	0.580	-0.003	0.018	0.868
Dfinstress	0.000	0.001	0.866	0.000	0.000	0.504
Constant	0.019	0.010	0.047	-0.029	0.007	0.000

**Table 5.**  
Short-run and long-run test statistics

annual sukuk issuance per country are taken into consideration as the sukuk concentration. Inflation, trade deficit and financial stress series were examined as control variables. There is a long-term cointegrated relationship between the development of the sukuk market and economic growth. Sukuk volume and sukuk density have a positive effect on growth in the long run. One unit increase in sukuk volume increases growth by 0.5%, while the increase in sukuk density increases growth by 1.7%. When we examine short-term relationships, it is seen that sukuk variables do not have an effect on growth. As a result, sukuk exports contribute positively to growth rates in the long run.

This study proves that the sukuk market development can influence economic growth positively in a country with Islamic finance industry. Especially, developing Muslim countries can benefit from the sukuk market development in the long term. In addition, we support prior studies through current study's findings (Nayan and Norsiah, 2014; Echchabi *et al.*, 2016; Smaouia and Nechi, 2017; Echchabi *et al.*, 2018; Mitsaliyandito and Arundina, 2018; Alkhawaja, 2019; Al-Raeai *et al.*, 2018; Abdelrahman, 2019).

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