



The Effect of Islamic Finance on Small and Medium Enterprises and Job Creation in Turkey: An Empirical Evidence

Seyf Eddine Benbekhti,
University of Abu Bakr Belkaid, Algeria
Corresponding email: bensifou3@gmail.com

Hadjer Boulila, Abdelnacer Bouteldja
University of Abu Bakr Belkaid, Algeria

Article History

Received: December 1st, 2020 | Revised: February 1st, 2021 | Accepted: March 12th, 2021

Abstract

The aim of this paper is to investigate and evaluate how can Islamic finance participate in job creation through financing small and medium enterprises in Turkey in order to solve the problem of unemployment. The paper adopts a Vector Autoregressive model (VAR) based on monthly data (2009-2017). The results revealed that Islamic finance is a golden opportunity and a sufficient alternative financial source for SMEs which enhance productivity and reduce unemployment by contributing to the labor market. This study contributes to the existing literature by presenting a promising financing tool to the prospective borrowers of SMEs (farmers, underserved groups, and small entrepreneurs) which is Islamic financing. This alternative can be an effective tool for both Muslim and non-Muslim countries in regard that conventional finance is more expensive and SMEs are unable to pay high interest rates. It would also help in establishing low unemployment levels. This paper suggested that Islamic banks and Islamic financial institutions should converge more on the SMEs by providing funding to SMEs which would lead to boost production and economic development

Keywords: Labor Market, Small and Medium Enterprises, Islamic Finance, VAR

Jel classification: J45, P13

Type of paper: Research Paper.

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DOI:

<https://doi.org/10.18196/ijief.v4i0.10490>

Web:

<https://journal.umy.ac.id/index.php/ijief/article/view/10490>

Citation:

Benbekhti, S. E., Boulila, H., & Bouteldja, A. (2021) The effect of Islamic finance on small and medium enterprises and job creation in Turkey: An empirical evidence. *International Journal of Islamic Economics and Finance (IJIEF)*, 4(SI), 41-62. DOI: <https://doi.org/10.18196/ijief.v4i0.10490>

I. Introduction

1.1 Background

Small and medium enterprises is considered as the backbone of many economies worldwide and participate in its social development, it has an important role in developing countries as it presents a dominant share of the private sector, and contributes in their respective job markets with more than 50 percent. (Ali, 2013; Bazza, Maiwada, & Daneji, 2014; Inyang, 2013; Li & Chen, 2006; Ul Hassan, 2008), have agreed on its importance, which is mainly reflected in its ability to generate and create jobs, developing skills, providing opportunities, maintaining sustainability an economic growth. In addition, SMEs is also a good part in the puzzle of promoting international trade and prioritizing its development. SMEs had and still have a significant role since 1930 crisis and continue to proof its resilience during each economic or financial crisis, where (Pasnicu, 2018), had argued that, although the negative impact of the financial crisis of 2008 on SMEs, but it still function an important role in creating jobs. SMES is also effective in reducing poverty and diversifying the economy, attracting foreign investment in order to accelerate economic growth. In addition, Kumar (2017), there are other important factors regarding SMEs which is the rise in youth's engagement –who significantly participate in in the creation of new firms and start up activities-, in addition to their flexibility and capability of adapting more quickly to changes.

However, the main constraint to SMEs development is its limited access to the conventional financial resources and services such as loans, savings and insurance. According to (IFC, 2017) the market of SMEs is facing a huge financing gap with US\$2.4 trillion where we find around 41% of formal SMEs in developing countries (131 million) which have not met their funding necessities. SMEs' financing gap is defined as “the outcome of a mismatch between the needs of the small firms and the supply of financial services, which are typically easier for large firms to access”(Veiga & McCahery, 2019).

Consequently, this paper suggests a promising financing form “Islamic finance”, which is no longer related to the religion and to Muslims but also used in western countries. SMES can be a promising answer to the SMEs' financial needs and an effective instrument to facilitate access to finance for SMEs where Islamic finance is characterized with different features and structures that can be efficient in supporting SME financing. According to (Elasrag, 2016), Islamic finance emphasizes partnership-style financing, which is in it turn beneficial in improving access to finance for the poor and small business.

Thus, the main objective of this study is to investigate the efficiency of Islamic finance through Islamic banking in response to the financing needs and to study the level of promoting employment among SMEs in Turkey using a vector autoregressive model (VAR). Additionally, the main contribution of this paper is multiple. It provides a further contribution to the rare empirical literature relative to the effectiveness of the Islamic banking on SMEs' finance ability and determining the capacity of these enterprises to create job positions with respect to Islamic bank financing in Turkey. From another side, and to the best of the authors' knowledge, this paper remains one of the first to use Vector autoregressive model and impulse responses in dealing with these two main issues faced by most economies worldwide.

This paper comprises of different sections. Section 2 includes the review of literature on Islamic modes of financing and their role in SMEs growth. It also provides overview of Small and Medium enterprise and Islamic finance in Turkey and finally the discussion of various previous studies. Data and methodology is discussed in section 3, while section 4 presents the analysis of results. Section 5 is reserved for concludes and recommendations.

II. Literature Review

2.1. Theoretical Framework

2.1.1. What is SMEs

It is complicated to achieve a common explanation to the SMEs as there is various definitions worldwide. According (Muriithi, 2017), stated in the words of Auciello (1975), that more than 75 definitions of SMEs in a study conducted on a group of countries (75 country). The main reason behind this variation is that the definition of SMEs depends on several aspects such as the country itself and the kind of industry, the size of business, assets, employers, and products.

According to OECD, SMEs are defined as "non-subsidiary, independent firms which employ less than a given number of employees". This number varies across national statistical systems. As in the European Union, the most recurrent maximum limit is 250 employees, while, other countries lay the limit at 200 workers. In addition, a limit of 500 employers is set to consider a firm as an SME in the United States. Smaller firms are generally constituted of less than 50 employees, while 10 employees is the maximum number in a micro-enterprise, or in some cases 05 employees.

Financial assets is another aspect used to define SMEs. For example, SMES in the European Union should have an annual turnover of EUR 40 million at most and/or a balance-sheet valuation that does not overrun the amount of EUR 27 million (OECD, 2000). Accordingly, (Darren & Conrad, 2009) explain that the more reason why SME definition varies particularly from industry to industry; the country to country; size to size and number of employees to a number of employees is to reflect industry, country, size and employment differences accurately (Lucky, Minai, & Rahman, 2013).

In addition, ILO stressed that SMEs have positive contributions in providing and maintaining balanced economic and social development. They also play an important role in decreasing the level of unemployment and creating new employment opportunities and with their flexible production structure, they can follow the changes in the market conditions more effectively. SMEs make crucial contributions to job creation and income generation; they account for two-thirds of all jobs worldwide (International Labour Office, 2015).

2.1.2. Understanding SMEs and Islamic Finance

2.1.2.1. Islamic finance for SMEs

The lack of funding is one of the most important constraints faced by SMEs. Marketing and administrative barriers, the lack of an integrated accounting system, shortage of trained manpower, institutional constraints and government legislation are also limitations faced by the SMEs (Mumani, 2014). In addition, high-interest rates and the lack of adequate collateral are the major barriers facing the SMEs where banks would usually finance large businesses and prefer to deal with them because of the low degree of risk and the ability of these businesses to provide the required guarantees (Elasrag, 2016). The finance gap is bigger when considering the micro and informal enterprises as 65-72 percent of all MSMEs (240-315 million) in emerging markets lack access to credit. In addition, about 55-68 percent of SMEs in developing countries are either financially underserved or not served at all, resulting in a lost opportunity to realize their full potential (IFC, 2016).

According to the World Bank statistics, Access to Finance for Formal SMEs in the Emerging Markets is described on Figure 1.

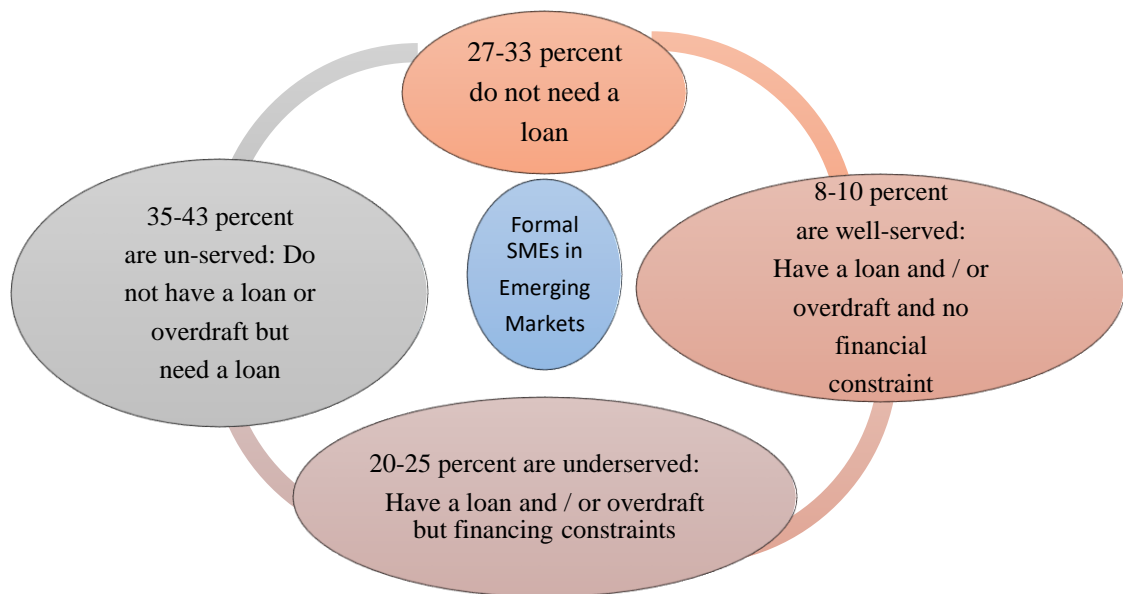


Figure 1. SMEs Access to finance

Source: IFC 2016

The SMEs financing challenges can come across innovative and diverse financial product contributions such as “Islamic finance”. Where (Kayed, 2012) affirms that the term ‘Islamic financial system’ is moderately new appearing in the late 1970s and it is defined as a system whose principle underlying its operations and activities are founded in Shariah (Islamic laws). The Islamic financial system is not limited to banking but extends to capital markets, capital formation and all types of financial intermediation. It is expected to go beyond the narrow concept of being an ‘interest-free’ system and actively participate in achieving the goals and objectives of the Islamic economy. Although Islamic finance is founded on the absolute prohibition of Riba (usury), it is supported by other principles of Islamic doctrine advocating risk-sharing, entrepreneurship and the absolute prohibition of Gharar (preventable uncertainty and ambiguity) *Maysir* (gambling and other speculative behavior). Earning a passive return on capital is prohibited because of the Islamic perception of hoarding capital as it prevents money from realizing its intended objectives and negates its function as a viable tool for development (Kayed, 2012).

OIC has defined SMEs as its main target to “develop appropriate policies to accelerate the convergence between Islamic finance and SME industries where in this context by promoting the utilization of Islamic finance products which are more linked to the real economic activity, to enable SMEs in the member countries to tap into the rapidly growing pool of Shariah-compliant funds. (Mohieldin, Iqbal, Rostom, & Fu, 2011),

Therefore, the Islamic finance industry is composed of four sectors: banking, Sukuk (bonds), equity and funds, and takaful (insurance). The banking sector dominates the industry with approximately 75% of all Islamic financial assets under management.

The Islamic financing options for SMEs identified below have a fundamental role to play in increasing the financial inclusion.

Several studies have investigated the link between Islamic finance and micro-financing and which are the appropriate Islamic forms to finance SMEs. (Shaban, Duygun, & Fry, 2016b) suggested that Murabaha contracts are perfect for financing SMEs, and they encourage Islamic bank managers to be less concerned with the asymmetry of information associated with financing SMEs while (Saad & Razak, 2013) claimed that Islamic financial institutions should consider Musharaka contracts as the main products for financing SMEs because they are the ideal product.

2.2. SMEs and Islamic finance in Turkey

2.2.1. SMEs in Turkey

In Turkey, and in accordance with the relevant legislation that came into force in 2005 and was first amended in 2012 and then again in 2018, SME is defined as an enterprise that employs less than 250 persons per year and either its annual net sales revenue or balance sheet value does not exceed 40 million Turkish Liras.

Turkish SMEs play an important role in the non-financial business economy, where they provide nearly 79% of the labor force and account for more than half of total value-added.



Figure 2. Basic Indicators for SMEs in Turkey (2016)

Source: Turkish Statistical Institute

Based on the report of the Turkish Statistical Centre (Figure 2 and table 1), Small and Medium-Sized Enterprises (SMEs) represent 99.8% of the total number of enterprises. It also contributes to 73.5% of total employment and 54.1% of wages and salaries. In addition, SMEs provide 62% of turnover, 53.5% of value added at factor cost and 55% of gross investment intangible goods in 2016.

It was also stated from the OCDE report in figure 3 that the number of small and medium enterprises active in the industry and services sector exceeds 3 million enterprises, making it the pillar of the Turkish economy.

Most SMEs (some 36.4) operates in the wholesale and retail trade sector, accounting for more than one-fourth of SME employment and SME value-added. Manufacturing is even more important in terms of value-added, taking up 30 % of total value added (EC.2017), but with fewer companies (around 12.6 % of the total number). Transportation and storage 14.7% and construction 7.3%... (OECD,2017)

Table 1. SMEs share in Turkey and Europe

Class size	Number of enterprises			Number of persons employed			Value added		
	Turkey		EU	Turkey		EU	Turkey		EU
	Number	Share	Share	Number	Share	Share	Billion €	Share	Share
Micro	2 587 406	96.6 %	93.0 %	5 522 510	40.7 %	29.8 %	90 681	17.5 %	20.9 %
Small	58 926	2.2 %	5.8 %	1 813 020	13.4 %	20.0 %	68 366	13.2 %	17.8 %
Medium-sized	26 126	1.0 %	0.9 %	2 625 005	19.4 %	16.7 %	118 563	22.8 %	18.2 %
SMEs	2 672 458	99.8 %	99.8 %	9 960 535	73.5 %	66.6 %	277 610	53.5 %	56.8 %
Large	4 858	0.2 %	0.2 %	3 598 549	26.5 %	33.4 %	241 579	46.5 %	43.2 %
Total	2 677 316	100.0 %	100.0 %	13 559 084	100.0 %	100.0 %	519 189	100.0 %	100.0 %

Source: ITC's SME Competitiveness database

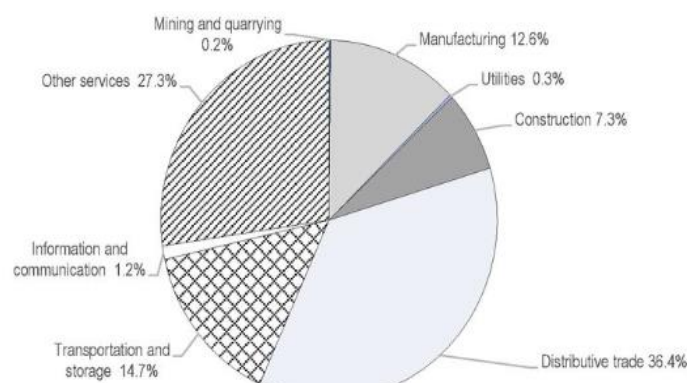


Figure 3. SMEs sectors

Source: OCDE 2017

2.2.2. Islamic finance in Turkey

Islamic finance in Turkey started to be active since 1984, starting with the special finance house “Zel Finans Kurumu” which was the first institution of Islamic finance in order to attract more capital from the Middle East. Islamic finance in this period started with the basic banking application. However, these special finance houses were highly regulated by a secular bureaucracy and did not benefit from the same advantages as the conventional banks, where they were not covered by Turkish central bank’s insurance scheme and were not allowed to invest in government securities causing them some competitive disadvantages with conventional banks.

This situation was improved in 1999 and 2001, when Turkey had been hit with a sharp financial crisis, the Islamic banking institution has been developing continuously where it registered unprecedented growth rates. An annual growth of 40% for their assets, 53% financing operation growth and 40% deposit growth (Egresi & Belge, 2015).

In 2005, banking law no. 5411 replaced “special finance house” with “participation bank” (“katılım bankacılığı”) while the Union of Special Finance Houses became the “Participation Banks’ Association of Turkey” (TKBB). Also, the state has extended its 50,000 Lira guarantees on deposits to participation banks. This encouraged people to invest their money in the participating banks. Also, the legislation has been harmonized so that today both Islamic and conventional banks operate according to the same law. All these changes created a more favorable regulatory framework for participation banks in Turkey with the effect being that Islamic finance started to develop more rapidly in the country. Today there are 6 participation banks in Turkey.

Table 2. Total Banking Sector Overview for Turkey

Banks	Number of Banks	Assets		Deposits		Credits	
		Million TL	Share (%)	Million TL	Share (%)	Million TL	Share (%)
Deposit Banks	33	3,403,305	88.00%	1,899,352	93.29%	2,088,599	87.23%
Participation Banks	5*	206,931	5.35%	136,613	6.71%	112,475	4.70%
Development & Investment Banks	13	257,190	6.65%	Nil	Nil	193,352	8.08%
Total	51	3,867,425	100	2,035,964	100	2,394,425	100

Source: BRSA Monthly Bulletin

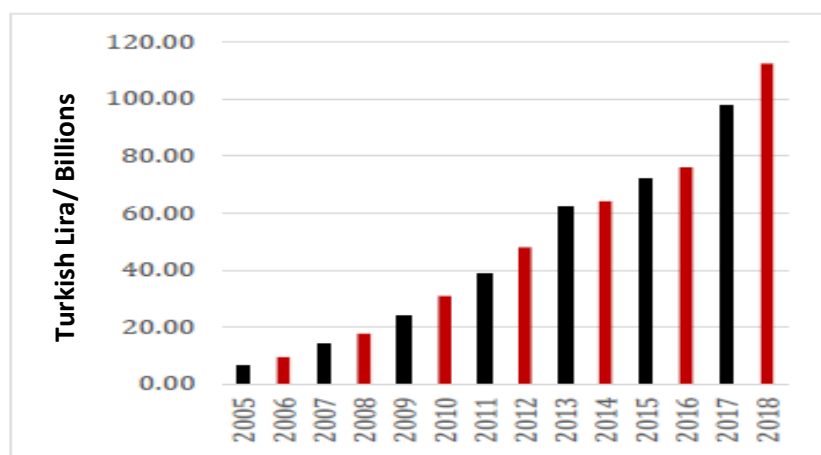


Figure 4. Total Financing of the Participation Banks in Turkey
Source: BRSA

From Table 2 and Figure 4, we notice that the total credits of participation banks in Turkey have reached TRY112 billion in 2018 which was only around TRY6.5 billion in the year 2005. This impressive growth had taken place due to the participation banks' penetration of retail financing services, especially in the SME segment (PBAT, 2017). The figure also evinces the upward trend in the growth of total financing of participation banks.

2.3. Previous Studies

Different researchers have adopted different studies in order to investigate and evaluate different tools of Islamic finance for SMEs and to introduce greater opportunities for development and growth of Islamic financial system as one of the methods that may help alleviating the problems of financing SMEs. Starting with the study of (Naceur, Barajas, & Massara, 2017) who argued that Islamic banking would therefore seem to be an effective avenue for financial inclusion. (Hakeem, 2019) also agreed that Islamic finance institution can play an important role to increase financial inclusion for SMEs but are facing criticism for focusing on high net worth individuals and well-served segments of society. (Biancone & Mohamed Radwan Ahmed Salem, 2014) argued that even non-Muslim countries may adopt Islamic finance to reduce the SMEs financial gap by exploring the feasibility of adapting Italian SMEs to the Islamic financial system and verify the possibility of financing them through Islamic financial instruments which requires certain aspects to be fulfilled. One of the numerous benefits and opportunities is attracting Arab sovereign funds to invest in Italy is a huge, the liquidity that could be generated is of a great importance more over the creation of employment opportunities that could be created. (Huda, 2012) conducted a study that

aims to identify a framework in which Islamic financing scheme can be used to solve financing problem faced by SMEs using data for Indonesia.

(Shaban, Duygun, & Fry, 2016a)) investigate the growth in SMEs lending approaches by Islamic banks by developing a two-stage competition model, where the first stage (Bertrand framework) conventional and Islamic banks compete with prices while it competes with loans in the second stage (Cournot framework). Results revealed in first stage that Islamic banks would gain market share because of its differentiated products and in the second stage the market share competition had led to the decrease of the amount of lending to SMEs. Another study by (Aysan, Disli, Ng, & Ozturk, 2016) examined the bank's willingness to finance SMEs in Turkey, using pooled OLS, and fixed-effects estimators for a set of 40 commercial banks including participation banks (Islamic banks). Results showed that the quality of banks' SME loan portfolio is comparable to that of conventional banks. The results are robust to different bank ownership forms (state owned, private and Islamic banks).

III. Methodology

This study adopts a Vector Autoregressive (VAR) model for the Turkish Islamic financial sector and its effect on SMEs and job creation using monthly data (from 04/2009 to 12/2017), extracted from Thomson Reuter's database.

VAR model is one of the most successful, flexible and easy to use models for the analysis of multivariate time series. It is a natural extension of the univariate autoregressive model to a dynamic multivariate time series. The VAR model has proven to be especially useful for describing the dynamic behavior of economic and financial time series and for forecasting (Zivot & Wang, 2006). It describes the evolution of a set of "k" variables (called endogenous variables) over the same sample period ($t = 1, \dots, T$) as a linear function of only their past evolution. The variables are collected in a $k \times 1$ vector y_t , which has as the i th element Y_i , t the time t observation of variable Y_i (Elmor, 2017). A reduced form VAR expresses each variable as a linear function of its own past values, the past values of all other variables being considered and a serially uncorrelated error term. Thus, in our study, The the VAR involves six equations as follow:

$$\begin{aligned}
 IDP_t &= \sum_{i=1}^P \alpha_{1i} SME - VA_{t-i} + \sum_{i=1}^P \beta_{1i} EMP_{t-i} + \sum_{i=1}^P \theta_{1i} IPI_{t-i} + \sum_{i=1}^P \gamma_{1i} I_{t-i} + \sum_{i=1}^P \gamma_{1i} GDP_{t-i} \\
 &\quad + \varepsilon_{t1} \\
 EMP_t &= \sum_{i=1}^P \alpha_{2i} SME - VA_{t-i} + \sum_{i=1}^P \beta_{2i} IDP_{t-i} + \sum_{i=1}^P \theta_{2i} IPI_{t-i} + \sum_{i=1}^P \gamma_{2i} I_{t-i} + \sum_{i=1}^P \gamma_{2i} GDP_{t-i} \\
 &\quad + \varepsilon_{t2} \\
 SME - VA_t &= \sum_{i=1}^P \alpha_{3i} IDP_{it-i} + \sum_{i=1}^P \beta_{3i} EMP_{it-i} + \sum_{i=1}^P \theta_{3i} IPI_{it-i} + \sum_{i=1}^P \gamma_{3i} I_{it-i} \\
 &\quad + \sum_{i=1}^P \gamma_{3i} GDP_{it-i} + \varepsilon_{it3} \\
 IPI_t &= \sum_{i=1}^P \alpha_{2i} SME - VA_{t-i} + \sum_{i=1}^P \beta_{2i} IDP_{t-i} + \sum_{i=1}^P \theta_{2i} EMP_{t-i} + \sum_{i=1}^P \gamma_{2i} I_{t-i} + \sum_{i=1}^P \gamma_{2i} GDP_{t-i} \\
 &\quad + \varepsilon_{t2} \\
 GDP_t &= \sum_{i=1}^P \alpha_{2i} SME - VA_{t-i} + \sum_{i=1}^P \beta_{2i} IDP_{t-i} + \sum_{i=1}^P \theta_{2i} IPI_{t-i} + \sum_{i=1}^P \gamma_{2i} I_{t-i} + \sum_{i=1}^P \gamma_{2i} EMP_{t-i} \\
 &\quad + \varepsilon_{t2} \\
 I_t &= \sum_{i=1}^P \alpha_{2i} SME - VA_{t-i} + \sum_{i=1}^P \beta_{2i} IDP_{t-i} + \sum_{i=1}^P \theta_{2i} IPI_{t-i} + \sum_{i=1}^P \gamma_{2i} EMP_{t-i} + \sum_{i=1}^P \gamma_{2i} GDP_{t-i} \\
 &\quad + \varepsilon_{t2}
 \end{aligned}$$

Table 3. Study's variables

Variables	Definitions
IdP	Islamic banks Deposit.
VaSMEs	SME's value-added to GDP.
Emp	Employment rate.
Ipi	Industrial Production.
I	Interest rate.
GDP	Gross Domestic Product.

Source: by the authors

IV. Result and Discussion

4.1. Result

4.1.1. Unit Root Stationary Test

Unit root test is an essential test to choose which model is appropriate for the study, and to reach this goal we have used ADF test. If the variables in the regression model are not stationary, then it can be proved that the standard assumptions for asymptotic analysis will not be valid. In other words, the usual “t-ratios” will not follow a t-distribution, so we cannot validly undertake hypothesis tests about the regression parameters (Olweny & Omondi, 2011).

The null hypothesis of the test is unit root in the series. If the result is statistically significant, the null hypothesis can be rejected which means that data is stationary at level, $I(0)$ or to be integrated of order zero. $H_0: G = 0$, $H_1: G \neq 0$.

Table 4. Augmented dickey Fuller stationary test

Variables	ADF stationarity test (prob)			Results
	Level	1st difference	2nd difference	
Va Sme	0.7103	0.0001	-	Stationary at first difference
IPi	0.6795	0.0000	-	Stationary at first difference
Idp	0.4432	0.0000	-	Stationary at first difference
Sukuk	0.9603	0.0000	-	Stationary at first difference
I	0.5417	0.0000	-	Stationary at first difference
GDP	0.0147	-	-	Stationary at level

From Table 4 we notice that all variables are not stationary and have unit root because their probability is higher than the critical value except GDP which, is stationary at level, however at the first difference, all variables became stationary.

4.1.2. Johanson Co-Integration Test

In order to test if the variables are cointegrated or not this study adopts one of the well-known approaches which is the Johansen co-integration test. Based on the error correction estimation, this test is used to examine the presence of cointegration under different hypothesis about intercepting or trend parameters, and the number k of cointegrating vectors, and then conducting likelihood ratio tests. (Hansen & Johansen, 1993).

Table 5. Results of Johanson co-integration Test Statistics

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.396565	95.42094	95.75366	0.0527
At most 1	0.212346	51.47583	69.81889	0.5727
At most 2	0.151053	30.70920	47.85613	0.6821
At most 3	0.098746	16.46224	29.79707	0.6794
At most 4	0.078209	7.417010	15.49471	0.5297
At most 5	0.003809	0.331993	3.841466	0.5645

Source: Data Processing

This step is the main step to know if we can proceed with the estimation of VAR model or not. To do so, we must test if any long relationship between variables exists because the VAR model is only used for short-run relations (no cointegration relation must exist). Table 5 presents the results based on Johanson cointegration test.

Trace test indicates no cointegration at the 0.05 level since all probabilities are higher than 0.05 which means that there is no long-run relation between our variables.

4.1.2.1. Lag selection

The Akaike Information Criterion (AIC) and Schwarz (SC), are usually used to choose the optimal lag length in single-variable distributed-lag models. This step is very important condition to estimate the VAR model. Results shows that we have 1 lag order (* indicates lag order selected by the criterion). Once we have been fixed on a vector autoregressive model which includes one lag, is steady with serially uncorrelated errors, we can proceed with the impulse response function after running the estimation.

4.1.2.2. Impulse Response Function

After the definition of the lag order, we estimate VAR model, and one of the most important advantages of VAR specifications is the computation of Impulse Response Functions (IRF) of any endogenous variables to one standard deviation shock in any other endogenous variable in the system.

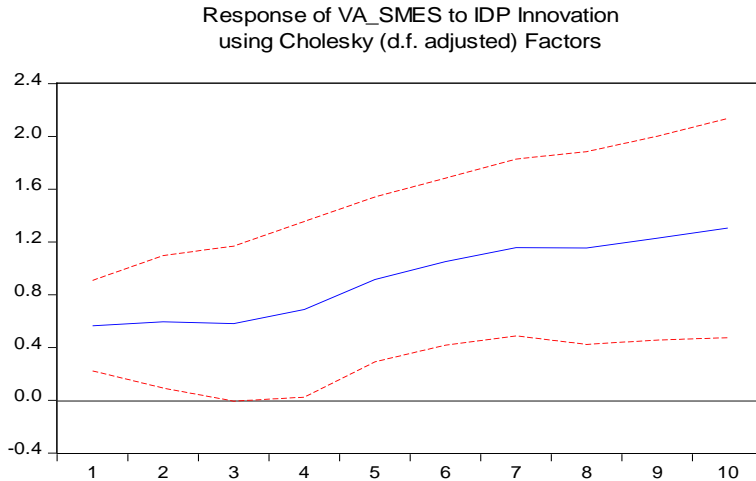


Figure 5. Response of SMEs to Islamic banks deposit
Source: Data Processing

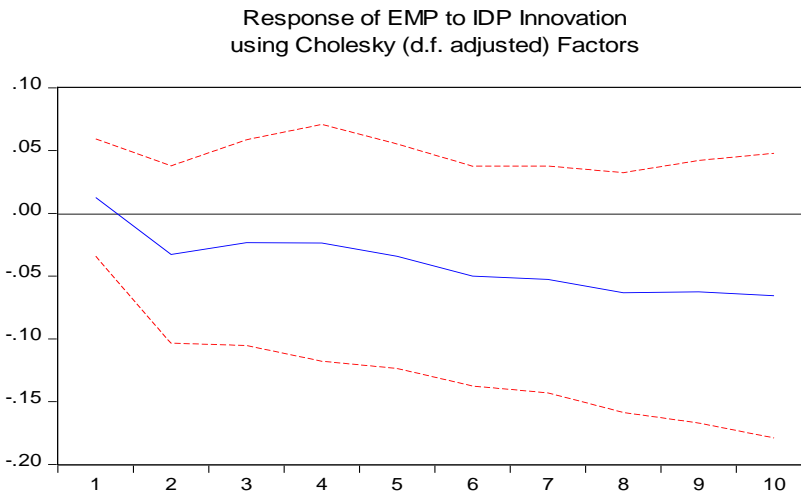


Figure 6. Response of Employment to Islamic Banks Deposit
Source: Data Processing

Figure 5 shows that the impulse response of small and medium enterprises to a shock in Islamic finance is positive and continuous response throughout the study period.

We note from figure 6 that the impact of the industrial production's shock on employment is a negative response along the study period.

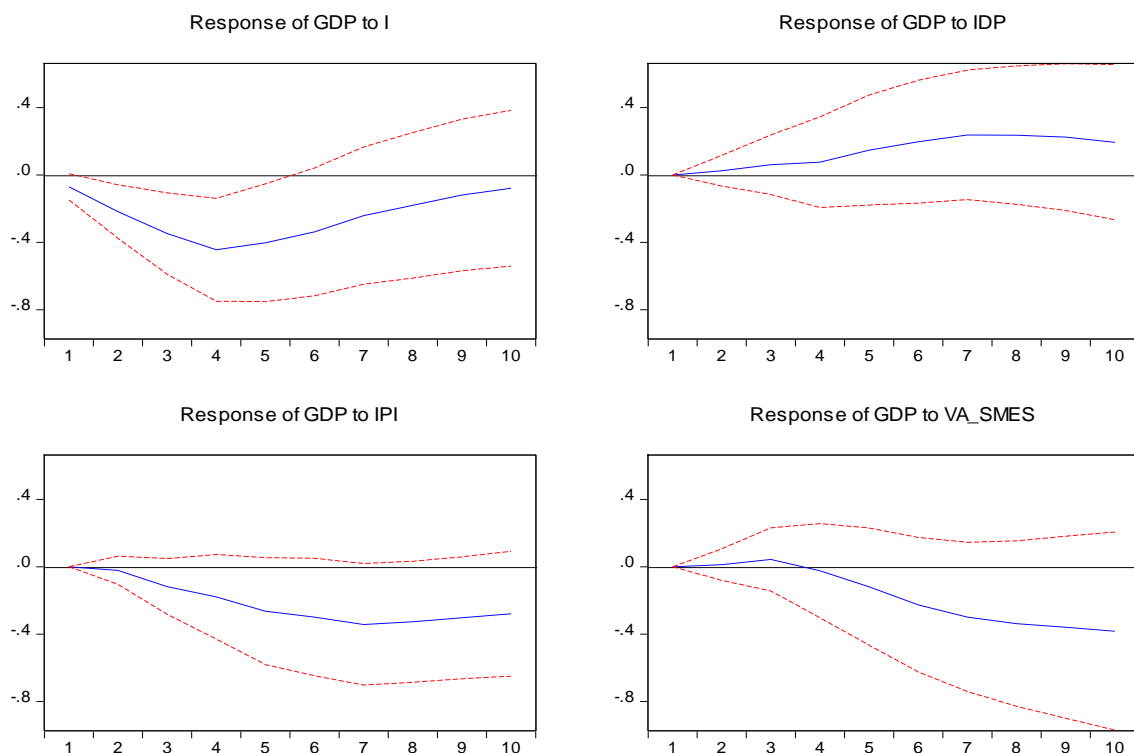


Figure 7. Response of GDP to the study variables
Source: Data processing

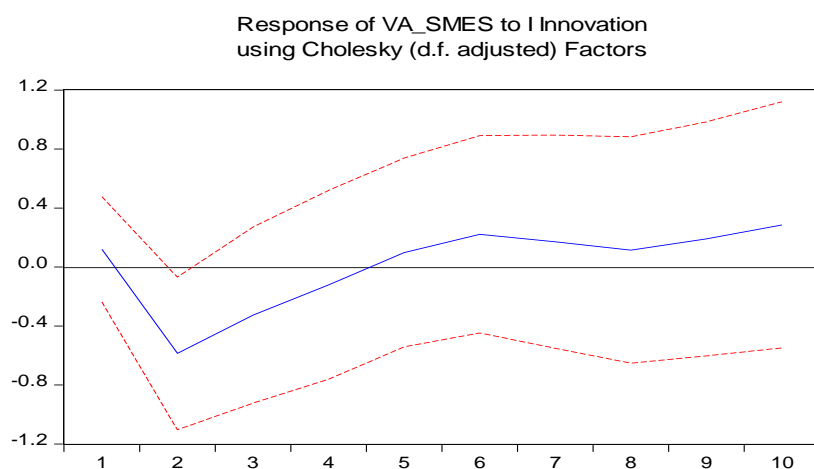


Figure 8. Response of SMEs to Interest Rate
Source: Data processing

Figure 7 shows that the GDP responds negatively to the interest rate shock during the first period and has a negative response at the fourth period and the negative response continues throughout the study period. As for the shock of Islamic finance, the GDP response is positive during the first period. The positive response continues throughout the study period.

As we notice the GDP response is negative for Industrial production over the study period. The GDP is responding positively during the fourth period followed by a negative response over the period.

We can see from figure 8 that a shock in the interest rate to which the SMEs respond negatively during the second period followed by a positive response during the fourth period with a positive and continuous response along the line.

4.1.3. Granger Causality Test

Granger defined the causality relationship based on two principles:

- First, the cause happens prior to its effect.
- Second, the cause has unique information about the future values of its effect.

Given these two assumptions about causality, Granger proposed to test the following results to identify the causal effect of X on Y in the Table 6.

Table 6. Granger causality test.

Model		Probability	Decision
VA_SMES	EMP	0.0655	Causal relationship exists
	GDP	0.0765	Causal relationship exists
	IPI	2.E-06	Causal relationship exists
IDP	VA-SME	0.0852	Causal relationship exists
	GDP	0.0008	Causal relationship exists
	EMP	0.0027	Causal relationship exists
	IPI	2.E-05	Causal relationship exists
I	I	0.1045	No causal relationship
	VA-SME	0.0001	Causal relationship exists
	GDP	0.0399	Causal relationship exists
GDP	IDP	0.8402	No causal relationship
	EMP	0.0636	Causal relationship exists

Source: Data processing

4.2. Discussion

Based on IRF and granger causality results, we found that there is a relative feasibility and effectiveness in the Islamic banking services for SMEs in Turkey, which means that when the Islamic bank financing improved, it will improve the SMEs' performance through the enhancing of the SMEs ability to provide capital, thus increasing productivity that will provide the need for more

working force. Moreover, this will offer bigger sales revenue and profit. This results agree with the study of (Ellahi, Bukhari, & Naeem, 2010) that stated that due to religious factors, and the unavailability of funds in conventional sector, SMEs in Pakistan prefer to use Islamic modes of financing because these modes are Riba-free. Our results also concur with the study of (Faisal, 2017) who finds that the Islamic bank financing has significant influence with a positive direction on the SMEs' performances..

Islamic finance has also a positive effect on industrial production which comes along with the study of (Bougatef, Nakhli, & Mnari, 2020) which results' reveal that Islamic Finance plays an important role in boosting industrial production in the short and the long run.

Islamic financing likewise has a significant effect with positive direction towards the SMEs' Welfare, increasing GDP and job positions since the use of Islamic banking sector leads to the rise in their earnings, job creation, production and the living level. These findings partly confirm those of (Boukhatem & Moussa, 2018) who found Islamic financial development can boost economic growth, but this positive effect is hindered by underdeveloped institutional frameworks. (Manzilati, 2015) puzzle out that Islamic finance with "the profit and loss sharing" system is encouraging SMEs to be more sustainable by reducing internal principles agents, this findings line with our study.

In addition, the importance of Islamic finance formulas is apparent in their ability to achieve justice between the two parties of the transaction, so that each party obtains its right, rather than the interest-based lending system, which usually guarantees the right of the loan holder at the expense of the borrower. These tools also ensure the use of available finance in real development projects Benefit the community. In addition, Islamic finance is keen to link financial and real balances and refuse to consider money as assets in their own right. The most important advantages of Islamic finance is its contribution in providing capital and strengthening the necessary financial capacity SME necessary for the production of goods and services contribute to justice in the distribution of wealth, the elimination of unemployment and the creation and creation of employment opportunities, the eradication of poverty.

V. Conclusion

As millions of young people join the labor market, the pressure to provide decent jobs will intensify. At the current rate of labor force growth, Turkey needs to create new jobs every year to prevent unemployment from rising.

This study adopts a Vector Autoregressive model (VAR) and Granger causality test using monthly data (2009M4-2017M12). Based on IRF and granger causality results, we found that there is a relative feasibility and effectiveness in the Islamic banking services for SMEs in Turkey, which means that when the Islamic bank financing improve, it will promote the SMEs' performance through the enhancing of the SMEs ability to provide capital. In addition, our findings stressed that Islamic finance may reveal a good boost for the firm dynamism in Turkey, particularly for small firms' chances of transitioning into medium and large firms. The implication is that the dominance of small firms drives down aggregate productivity, particularly in the manufacturing sector, and prevents firms from creating enough high-quality jobs for Turkey's growing labor force.

Policy implication:

- Most of existing bank regulations in Turkey are based on conventional banking model. Therefore, SMEs get loans from conventional banks on high interest rate which is very difficult for them to repay within stipulated time. So, for the SMEs, it will be more appropriate that a uniform regulatory and legal framework growth supportive of Islamic modes of financing and SMEs must be developed.
- Encourage the application of *Mudarabah* and *Musharakah* financing via the setting of special fund or subsidiary to undertake these modes of financing to facilitate SMEs.
- Establish a Shariah Commercial Court (SCC) dedicated to deal with legal matters of Islamic banking and of SMEs.

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