Bank Financing and Firm Growth: The Role of Islamic Bank Financing

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ABSTRACT

The study examined the influence of Islamic and/or conventional bank financing on the growth of firms. The data were based on 113 firms in a Middle East country – Jordan – that implemented a dual-banking system from 2007 to 2016. The finding revealed that the implementation of either type of bank financing, be it Islamic and/or conventional, affect the growth of the firms. The study observed that Islamic bank financing had a more significant effect on the growth of the firms. Following the results of this study, stakeholders, managers, and investors are expected to change their views on Islamic bank financing, which is currently viewed as a part of religious practice. It may lead to the utilization of Islamic bank financing by firms. It should be noted that this study is one of the first empirical studies on the impact of Islamic bank financing on the growth of firms.

Keywords: Interest-free Credit Facility, Islamic Finance, Conventional Loan, Firm Growth, Panel Data
JEL Classifications: G30, G32, C23

1. INTRODUCTION

Bank financing is one of the important sources of external funding for firms (Ayyagari and Maksimovic, 2007; Klapper et al., 2006; Levine and Warusawitharana, 2014), and it is also the strongest external determinant of the growth of firms. This may be due to the absence of adequate internal funding. Some of the benefits of bank financing for firms are adverse selection costs, low moral hazard, and the availability of renegotiation in cases of financial distress (Chemmanur and Fulghieri, 1994; Hoshi et al., 1993). In this regard, bank financing may contribute to the growth of a firm, provided that it allows the firm to address the liquidity constraint and raise the profits.

The emergence of Islamic finance in the last four decades allows firms to acquire bank financing from different types of commercial banks (Islamic and non-Islamic banks). The key difference between the products and services of these banks is that Islamic banking is based on the Sharia principles derived from the Qur'an

and Sunna (Algaoud and Lewis, 2001). With regard to all financial activities of Islamic institutions, this principle strictly prohibits the receipt or payment of interest, known as Riba (Zaher and Kabir Hassan, 2001). Apart from that, all contracts must be fair with no exploitation, and contracts involving risky or speculative ventures for profit are prohibited (Siddiqi, 2002). All parties involved in a contract share profit or loss without any pre-set return. This is in contrast to the conventional model, which is typically debt-based and therefore is high in risk (Imam and Kpodar, 2010). Therefore, the key differences between Islamic and conventional bank financing are the sharing of profit and loss, and the prohibition of interests.

Despite the unique characteristics of Islamic bank financing, its impact on the growth of firms remains relatively unknown. There are some studies that have examined this issue. For instance, Shabani et al. (2014) analyse the impact of Islamic loan on the investment growth of private-sector in Iran. Meanwhile, an earlier study by Weill and Godlewski (2012) focused on the benefits

for good-sized firms in choosing Islamic bank loan rather than a conventional bank loan. Some literature presented comprehensive studies of how the growth of a firm is impacted by conventional finance (Ayyagari and Maksimovic, 2007; Brown et al., 2011; Klapper et al., 2006; Rahaman, 2011; Volk and Trefalt, 2014), albeit contributing little to the knowledge of bank financing in Jordan or similar emergent states, since the majority of studies have been focused on developed Western countries.

Following the previous discussion, this study investigated the impact of Islamic and conventional bank financing on the growth of firms in Jordan, a developing country. The results of the study demonstrated that Islamic bank financing has a positive impact on the growth of firms in relation to both assets and employment. This observation was also reflected in firms that employed both (combined) Islamic and conventional bank financing.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Apart from internal sources, bank financing is one of the central components that have a significant impact on the growth of a firm. Ayyagari et al. (2012) observed that the most extensive and significant external funding was bank financing. Nevertheless, it should be noted that its impact on the growth of a firm may differ across firms according to the way the funds are utilized. For instance, if bank financing is used to ease a liquidity problem, the firm may likely to grow. This may lead to higher profits and eventually, a growing economy. Furthermore, many studies have illustrated that the advantages of bank financing such as legality, transparency, and problem-free arbitration in cases of renegotiation (Berlin and Loeys, 1988; Chemmanur and Fulghieri, 1994; Diamond, 1991; Hoshi et al., 1993). Although there are a number of issues in capital market dealings, the easy access to bank financing through well-organized fiscal establishments enables the growth of firms.

The last four decades witnessed the emergence of Islamic finance that allowed firms to acquire bank financing from different types of commercial banks (Islamic and conventional banks). Nowadays, banks from all around the world typically practice a dual banking system (Islamic and conventional). Such system has no operational problems as the only difference between the systems is Islamic banking operates within the regulations and parameters of Shariah law. The viewpoints and attitudes of the two systems are different, particularly in agreement financing. Conventional banks finance fixed-return loans, a service which is unavailable in Islamic banks due to the prohibition of interest charges (Riba). Although Islamic banking offers profit on investment, interest on loans is forbidden (Hassan and Lewis, 2007; Sundararajan and Errico, 2002). Interest is also commonly referred to as "riba," and is defined by Aggarwal and Yousef (2000, p. 96), as "any predetermined or fixed return in financial transactions." In contrast, conventional banks offer long and short-term loans, as well as overdrafts, whereas Islamic banks can offer only "Qard Hasn," also known as loans without interest. Moreover, Islamic banks are capable of providing financial assistant by buying the asset required by

a customer and then selling it to him (Hanif, 2010). One of the two most important components of Islamic financing is known as "sharing" (Musharaka and Mudaraba) and is built on Profit and Loss Sharing (PLS) standards. Algaoud and Lewis (2001), and Saeed (2001), explained that these methods of financing have no pre-set or agreed profit. Any loss hazard is distributed among investors and backers according to their respective shares. The other component is known as sale financing (Murabaha, Bay' As-salam, and Tawarruq) whereby a wide range of goods can be purchased by the bank and resold to customers at an agreed, higher price. Another type of financing mode is called leasing mode, which depends on the Ijara financing principle (Saeed, 2001).

Notwithstanding, the importance of the relationship between bank financing and firm growth has been empirically illustrated in many literatures. For example, Rahaman (2011) revealed that a firm is reliant on bank financing as its principal backing in achieving growth. Increased access to bank financing may decrease the impact of internal financing on firm growth. A recent study by Ullah and Wei (2017) involving 30 East European and Central Asian countries indicated that the development in sales, employment, workforce output, and efficiency improved significantly and swiftly in firms that utilized bank financing. These findings were supported by Brown et al. (2011) in a study involving 20 European countries. Their study demonstrated that bank financing for firm growth was required in 70% of Eastern European countries. Apart from that, Al-Rdaydeh et al. (2019) study involving 87 Jordanian firms indicated that assets and employment growth were positively related to bank financing. Volk and Trefalt (2014) stressed that a firm's ability to grow require bank financing. From this, the firm will become less reliant on alternative funding sources and will achieve higher growth rates in a shorter time. In addition, Claessens and Laeven (2003), Ayyagari et al. (2011) and Klapper et al. (2006), reiterated the importance and constructive influence of bank financing on the growth and innovation of firms.

Interestingly, there are studies which observe this topic from a different perspective – investigating the influence of flaws in the money market on the investment environment (Ağca and Mozumdar, 2008; Carpenter and Petersen, 2002; Fazzari et al., 1988; Hubbard, 1998; Ndikumana, 1999). This perception may increase the importance of bank financing, strengthening the relationship between bank finance access and firm growth. Drawing from previous studies, the influence of bank financing on firm growth is significant. This is in line with the primary role of bank financing; it supports firms' growth and ultimately facilitates economic development. It is therefore pertinent to recognize the significant role of the conventional banking sector as an important partner in economic development.

Whereas there is no shortage of research and literature on the conventional banking sector and the growth of firms, the opposite is true of Islamic banking. Although the latter is becoming increasingly important internationally, it is still a relatively new concept in the banking industry. This has generated a few research in its relation to firm growth. An example of a study would be of Shabani et al. (2014) who observed Islamic bank financing in firms

and its impact on the investment growth in Iran's private business community. The findings demonstrated a positive impact of Islamic bank financing on investment development, with a particular focus on imported goods within private sector investment. Nonetheless, it should be noted that Iran had no alternative banking system, which precludes any comparative research. This made the results unclear as to whether the growth was due to Islamic bank financing, or whether the results can be extrapolated to cover all firms. The need for research on Islamic bank financing and firm growth is imperative for the following reasons:

1. The global financial crisis of 2007-2008 was not unique; there are more recent and detrimental cases that threaten the conventional banking system. The emergence and development of international Islamic banking can be seen as an alternative financial structure.

2. Islamic banking has many benefits that attract prospective borrowers, especially firms in countries with a dual banking system. This is because Islamic bank financing relieves them of ethical and moral dilemmas such as ethical risk and the need to make disagreeable choices. According to Goaied and Sassi (2010), only a few prospective borrowers are sufficiently well-informed to make decisions. Such situation may expose them to moral risk or disagreeable choices when dealing with the borrowing procedures of conventional bank financing. On the other hand, the Islamic banking system relieves the customer of such worries by offering not only financing but also equity. Furthermore, the banks could also guide and encourage the firm's policies towards, for example, cost reduction, increasing the firm's competitiveness.

3. Conventional bank financing is implemented at a fixed rate, but no interest charge (Riba) is allowed in Islamic banking, a positive encouragement for the firm's growth. Awareness of the positive advantages of such bank financing systems can encourage not only the management of firms, but also the government advisors to study these financing models as worthwhile options for conventional banks.

These aspects motivate the proposal of the following hypotheses in this study:

H_1: There is a positive relationship between the implementation of Islamic bank financing and asset growth in Jordanian firms.

H_2: There is a positive relationship between the implementation of Islamic bank financing and employment growth in Jordanian firms.

Based on the previous discussion, Islamic and conventional banks can provide financing assistance to firms and help them grow. The present study was conducted in a country with a dual banking system. In other words, firms can borrow money from different types of banks simultaneously. Therefore, the study extended the above discussion to develop a hypothesis in the case of firms that simultaneously utilized both types of bank financing. The present study proposes the following hypotheses:

H_3: There is a positive relationship between the implementation of Islamic bank financing and asset growth when firms utilize it simultaneously with conventional bank financing.

H_4: There is a positive relationship between the implementation of Islamic bank financing and employment growth when firms utilized it simultaneously with conventional bank financing.

3. METHODOLOGY

3.1. Sample and Data Collection

This study assessed the link between bank financing and the growth of Jordanian firms. The companies involved in this study were part of the Amman Stock Exchange (ASE) list, one of the largest stock exchange in the Middle East. It should be noted that Jordan is the center in the Middle East because it has the best strategic location for a market of more than 1 billion consumers. Over the past few years, there have been several issues that had a negative impact on the Jordanian non-financial sectors (Al-Rdaydeh et al., 2018; Alabdullah et al., 2014).

This study included non-financial sector (service and industrial sectors) for listed Jordanian companies. The firms' annual reports from 2007 to 2016 were reviewed and the firms that implemented conventional or Islamic bank financing were selected. Note that in accordance with corporate governance regulations, all of the firms disclosed the source of their borrowed money. The time period chosen for this research was related to several issues that negatively impacted the firms' performance and the economy of Jordan (e.g., the Arab Spring, the shortages in gas movements from Egypt, and the civil war in Syria). Combined with the increase in oil process, these issues further affected the performance and growth of listed firms and the country's economy (CBJ, 2013).

As mentioned earlier, the ASE data stream and the annual reports of 223 Jordanian firms listed on ASE by the end of 2016 were analyzed in this study. Nonetheless, the companies using the primary standard industrial classification code relative to the banking industry (Chui et al., 2002; Omet and Mashharawe, 2002; Schmukler and Vesperoni, 2006), and firms with incomplete data are excluded. The final sample size was 113 firms.

3.2. Measurement of Variables

Two dummy variables were used to measure the independent variable. The first variable had a value of "1" if the firm used Islamic bank financing and a value of "0" otherwise, while the second variable had a value "1" if the firm uses Islamic and conventional bank financing simultaneously and a value of "0" otherwise. Furthermore, the dependent variable was the growth of Jordanian firms and was measured according to increased sales, employment of additional staff, the value of shares, and total firm assets. In line with previous studies by Sleuwaegen and Goedhuys (2002), Saeed (2009), Guariglia et al. (2011) and Delmar et al. (2013), this study employed the growth of total assets and employment indicators, in addition to the measurement of the growth of firms using log differences. The asset growth in this study was defined as the percentage change in the firm's asset value over the period of study. This value was the sum of tangible and intangible assets. Apart from that, firm employment growth was defined as the percentage increase in permanent full-time employees.

The first variable used in this study was firm size. According to Beck et al. (2008), it is a significant illustrative factor for funding arrangements. They explained that large firms tend to apply for more bank financing and correspondingly less informal or alternate

options. Nonetheless, there is no generally held view as to the relationship between firm size and growth, as demonstrated by Storey (2016), Evans (1987) and Wiklund (1998). Studies by Oliveira and Fortunato (2006) and Audretsch and Elston (2002), found that due to limited funding, small firms portrayed the negative influence of financing on firm growth. On the other hand, Wiklund (1998) and Katsikeas and Piercy (1993), showed that the relationship between firm size and growth is positive. The third observation by other studies however (Almeida and Campello, 2007; Katsikeas and Piercy, 1993), noted a faster growth rate for smaller firms. Following the observations, firm size was measured by computing the natural logarithms of the total asset of firms to reduce the influence of outliers in the regression analysis.

The second control variable was firm age. This variable dictated the tendency of young firms to achieve faster growth than older ones, and that they depended on internal rather than bank financing. Nonetheless, the relationship between age and growth is not straightforward. Some studies (Das, 1995; Elston, 1993), observed a positive relationship between the two variables, and some (Becchetti and Trovato, 2002; Hobdari et al., 2009) demonstrated an opposite negative result. This divergence in results is not surprising due to the intricacy of the factors and dynamics that affect growth, particularly in the case of young firms. In the case of older firms, their access to financing improves with age, and they are more likely to have a positive age/growth linkage. On the other hand, Yasuda (2005) who found a strong association of firm size and age, indicated that there was a negative impact of age on growth. The current study took into account the age of the frim at the end of 2016 from the date of incorporation. Natural logarithms of this variable were used in the analysis to decrease the effect of outliers.

The next control variable is the industry sector. According to Delmar et al. (2003), the growth of a firm is correlated with its industry association. Meanwhile, Gilbert et al. (2006), stated that the growth of any particular sector will effectively draw in other associated firms due to the inter-firm network in any specific industry. A study by Gilbert et al. (2006) demonstrated a further developed variable; an industry's development stage had a considerable impact on the growth of a firm, in addition to the firm's status in the network. Following Beck et al. (2005), the firms were chosen in this study were categorized as either industrial or service sector, as a device to regulate influences of either sector, therefore has a dummy variable for each of the two sectors.

Moving on, the profitability of firm was the fourth control variable due to its importance as the threshold of the growth of a firm (e.g., Demirgüç-Kunt and Maksimovic, 1998; Hamouri et al., 2018). Return on assets (ROA) was applied as a locus to determine a firm's profitability. Lastly, the ownership structure of the firm was also chosen as a control variable due to its importance in the performance and growth of a firm. One of the aspects of a firm's ownership structure was ownership concentration. The influence of concentrated ownership structures is documented in the research of (Chen et al., 2005; Claessens et al., 2002).

3.3. Analysis Technique

The relationship between the variables was analyzed using the panel data analysis. According to Hsiao (1986) and Yaffee (2003), this analysis tool is utilized globally by researchers and depends principally on a set of data collected over various time points, for a specified observation of individual variables. In addition, panel data analysis has shown to be more beneficial and valuable than time series or cross-section analysis. This is due to its ability to offer more degrees of freedom, alleviate multicollinearity among variables, eliminate unobserved heterogeneity in each observation in the sample, and reduce bias (Baltagi, 2005).

The following models demonstrate the mathematical explanations that were employed in this study. Moreover, the multiple regression technique was applied to the full sample based on the formula below:

$$AG_{it} = a + \beta_1 IBF_{it} + \beta_2 MBF_{it} + \beta_3 SIZE_{it} + \beta_4 AGE_{it} + \beta_5 ROA_{it} + \beta_6 OC_{it} + \beta_7 TI_{it} + \tag{1}$$

$$EG_{it} = a + \beta_1 IBF_{it} + \beta_2 MBF_{it} + \beta_3 SIZE_{it} + \beta_4 AGE_{it} + \beta_5 ROA_{it} + \beta_6 OC_{it} + \beta_7 TI_{it} + \tag{2}$$

Where, AG and EG refer to the Jordanian firm growth expressed by assets growth and employment growth respectively. IBF represent a dummy variable for firms using Islamic or conventional bank financing, MBF represent a dummy variable for firms using Mixed or conventional bank financing, SIZE refer to the size of firm, AGE refer to the firm age, ROA represent the return on assets of the firm, OC denote for ownership concentration of the firms and TI represent a dummy variable for the type of industry of firms.

4. RESULTS

4.1. Descriptive Statistics

Firms in the study sample were categorized according to the ASE listed firms, as either service or industrial. The 550 observations for Industrial firms accounted for 48.7% of total observations for the sample firms, whereas the 580 service firm observations accounted for 51.3% of the total number of 1,130 observations. In the present study, two dummy variables were employed to differentiate the firms which implemented Islamic or mixed bank financing from conventional bank financing. The results demonstrated that 405 firms that employed Islamic or mixed bank financing made up 35.8% of 1,130 total observations. Meanwhile, 725 observations were firms that utilized conventional bank financing, accounting for 64.2% of the total 1,130 observations.

Table 1 presents the descriptive statistics for the key variables in this study in terms of their means, minimum, maximum, and standard deviations. Although the results illustrated a wide variance between the value significance at specific time points, this is not an unusual result in growth-related matters. As illustrated by Papadakis (2007) and Hitt et al. (2001), firms may decide to pursue growth by expanding their products. It is also worth noting that the most economically sound and efficient method of expansion is by acquisition or merger. Although the use of this stratagem

facilitates significant increases in asset and employment growth at particular time points, the opposite may also cause by unexpected circumstances whereby the firm in its entirety or parts of it was sold. This may cause significantly low asset and employment growth. Apart from that, firm size and firm age were measured by employing the natural logarithm of the numbers. The results of firm size showed that the variable varied from 13.4 to 21.3 with a mean ratio of 17. Meanwhile, the variable of firm age varied from 0.69 to 4.35 with a mean ratio of 2.81.

With regard to the correlation between study variables shown in Table 2, the size of the firm had a negative and positive relation to employment growth and assets growth, but the association was not significant. In addition, profitability (r=−0.0075, P<0.10) correlated with asset growth negatively.

4.2. Empirical Results

Table 3 presents the regression model results that tested H_1 and H_3 concerning two cases. The first case explored the effect of implementing Islamic bank financing on asset growth. The results demonstrated that Islamic and conventional bank financing had a significant and positive relationship with the asset growth in Jordanian firms. This agrees with Rahaman (2011), Al-Rdaydeh et al. (2019) and Ullah and Wei (2017). Nonetheless, the result of the dummy variable used to distinguish Islamic and conventional bank financing showed that the utilization of Islamic bank financing had a more significant impact on asset growth compared to conventional bank financing. Furthermore, the second case involved firms that implement both Islamic and conventional bank financing simultaneously. The results demonstrated the dual financing system had a significant positive impact on the asset growth of firms compared to the utilization of conventional bank financing alone. Overall, the results proved that the use of Islamic or mixed bank financing by firms can promote asset growth.

Next, Table 4 shows the regression model findings that tested H_2 and H_4 concerning two cases, as presented in the previous regression model. The first case examined the impact of Islamic bank financing on employment growth. The results proved that Islamic and conventional bank financing had a significant and positive relationship with employment growth in Jordanian firms. These agree with Volk and Trefalt (2014), Rahaman (2011) and Ullah and Wei (2017). On the other hand, the result of the dummy variable used to distinguish Islamic and conventional bank financing showed that Islamic bank financing had a more significant impact on the growth of employment compared to conventional bank financing. Meanwhile, the second case involved the simultaneous use of both types of financing by the same firm. The results from this case demonstrated that a mixed bank financing had a significant impact on the growth of employment growth of firms. In addition, the results based on the dummy variable showed that mixed bank financing has a more significant impact on employment growth compared to conventional bank financing alone. Following these observations, it can be seen that the implementation of Islamic or mixed bank financing by firms can encourage employment growth.

All in all, the results further reiterated that the utilization of bank financing (Islamic or conventional bank financing or both) by firms can promote the growth of assets and employment. Shabani et al. (2014) concurred with this conclusion.

5. DISCUSSIONS AND CONCLUSION

This study hypothesized that bank financing is an indicator of the growth of a firm. It was expected the implementation of improved conventional or Islamic bank financing will improve the growth of the firms. As presented in the previous section, the results justified the hypothesis. It is worth noting that there were some

Table 1: Descriptive statistics

Variables	Observations	Mean	SD	Maximum	Minimum
AG	1125	0.0937	0.1913	2.2610	−0.7946
EG	1125	0.0714	0.1734	1.7687	−2.0898
SIZE	1123	17.0421	1.3636	21.3102	13.4950
AGE	1122	2.8108	0.7659	4.3567	0.6931
ROA	1125	0.0222	0.0906	0.4946	−0.6001
OC	1118	0.5421	0.2281	0.99	0.05

AG: Assets growth. EG: Employment growth, SIZE: The size of firm, AGE: The firm age, ROA: The return on assets of the firm, OC: Ownership concentration of the firms

Table 2: Correlation between variables

	AG	EG	IBF	MBF	SIZE	AGE	ROA	OC	TI
AG	1								
EG	0.504*	1							
IBF	0.115*	0.052	1						
MBF	0.082*	0.064*	−0.159*	1					
SIZE	0.056	−0.013	−0.035	0.025	1				
AGE	−0.160*	−0.162*	−0.083*	−0.125*	0.103*	1			
ROA	0.075*	0.002	0.096*	−0.003	0.230*	0.084*	1		
OC	0.001	0.006	0.065*	0.060*	0.149*	−10.081*	−0.018	1	
TI	−0.045	−0.025	−0.145*	0.031	−0.238*	0.288*	−0.049	−0.074*	1

Level of significance *P<0.10, **P<0.05; AG: Assets growth, EG: Employment growth, SIZE: The size of firm, AGE: The firm age, ROA: The return on assets of the firm, OC: Ownership concentration of the firms, IBF: A dummy variable for firms using Islamic or conventional bank financing, MBF: A dummy variable for firms using Mixed or conventional bank financing, TI: A dummy variable for the type of industry of firms

Table 3: Regression results

Independent variables	Dependent variable: Assets growth- regression with robust standard errors		
	Coef.	Std. Err.	VIF
IBF	0.0847*	0.0423	1.07
MBF	0.1066**	0.0443	1.05
SIZE	0.0487	0.0331	1.19
AGE	−0.1303**	0.0291	1.17
ROA	0.2652***	0.0592	1.08
OC	−0.0629	0.0811	1.04
TI	0.0131	0.0097	1.22
Constant	−0.3680	0.4923	
R squared	0.07		
F-Statistic	0.00		
Number of observation	1118		

Level of significance *P<0.10, **P<0.05, ***P<0.01. AG: Assets growth, EG: Employment growth, SIZE: The size of firm, AGE: The firm age, ROA: The return on assets of the firm, OC: Ownership concentration of the firms, IBF: A dummy variable for firms using Islamic or conventional bank financing, MBF: A dummy variable for firms using Mixed or conventional bank financing, TI: A dummy variable for the type of industry of firms

Table 4: Regression results

Independent variables	Dependent variable: Employment growth-regression with robust standard errors		
	Coef.	Std. Err.	VIF
IBF	0.0388**	0.0191	1.07
MBF	0.0275*	0.0152	1.05
SIZE	0.0028	0.0049	1.19
AGE	−0.0391***	0.0101	1.17
ROA	0.0551	0.0977	1.08
OC	−0.0104	0.0326	1.04
TI	0.0171	0.0158	1.22
Constant	0.1249	0.0892	
R squared	0.10		
F-Statistic	0.00		
Number of observation	1118		

Level of significance *P<0.10, **P<0.05, ***P<0.01; AG: Assets growth, EG: Employment growth, SIZE: The size of firm, AGE: The firm age, ROA: The return on assets of the firm, OC: Ownership concentration of the firms, IBF: A dummy variable for firms using Islamic or conventional bank financing, MBF: A dummy variable for firms using Mixed or conventional bank financing, TI: A dummy variable for the type of industry of firms

inconsistencies found in the growth of the firms. This was due to the two different systems of bank financing. Note that in the present study, firms that utilized Islamic bank financing illustrated a strong influence on the growth of a firm's assets and employment. Following this, managers took advantage of Islamic bank financing to promote the growth of their firm growth, which is in line with Shabani et al. (2014).

Furthermore, this study demonstrated strong growth of the firms that utilized Islamic bank financing, solidifying the notion that Islamic bank financing assists the firm's growth. A possible reason would be that the PLS contract – the basis of Islamic bank financing – shifts the role of Islamic banks from being exclusively lenders to partners of the firms. This benefits both parties by encouraging the lenders' innovative, administrative, and decision-making abilities, while including the borrowers in the decision-making process. This allows the borrowers access to information that could

broaden their knowledge and business acumen, empowering them to contribute to the strong growth of the firm. As mentioned by Yusof and Bahlous (2013) these advantages there will also have a positive impact on the country's fiscal and social development.

Moreover, Islamic bank financing is straightforward, stable, and has unbreakable ties to the economy and to actual personal contact and interaction. This is in contrast to impersonal electronic transactions. This is pertinent for firms that prefer actual real-time businesses, and they can seek this support through Musharaka and Mudaraba service. A benefit would be an improved output and quality of businesses. In addition, the circulation between businesses and banks relies on the generation of profits. This is unlike Murabaha which, like other systems centered on sales, demands the physical movement or transfer of goods or delivery of services. Similar regulations are enforced in the lease of assets. Therefore, it is obligatory for all types of Islamic bank financing to include real products, goods or services. This obligation is in contrast to the conventional bank financing system. In the conventional system, firms are only obliged to meet its debt repayments, while Islamic banks focus on the predicted profit generating assessment as the key stipulation.

A limitation of the present study is that it is only focused on one developing country. Further studies should include samples from other developing countries. In addition, the same model could also be used to compare the growth of firms in developed and developing countries. Although the current study failed to find supporting empirical evidence on the relationship between the growth of firms and the use of Islamic bank financing, the current research is an empirical study adopting this novel variable. Nevertheless, this study used conceptual and theoretical interpretations from the conventional banking industry and other types of firms to develop the presumed assumptions.

REFERENCES

Ağca, Ş., Mozumdar, A. (2008), The impact of capital market imperfections on investment cash flow sensitivity. Journal of Banking and Finance, 32(2), 207-216.

Aggarwal, R.K., Yousef, T. (2000), Islamic banks and investment financing. Journal of Money, Credit and Banking, 32(1), 93-120.

Alabdullah, T.T.Y., Yahya, S., Ramayah, T. (2014), Corporate governance mechanisms and Jordanian companies financial performance. Asian Social Science, 10(22), 247.

Algaoud, L.M., Lewis, M.K. (2001), Islamic Banking. UK: Edward Elgar Publishing Limited.

Almeida, H., Campello, M. (2007), Financial constraints, asset tangibility, and corporate investment. Review of Financial Studies, 20(5), 1429-1460.

Al-Rdaydeh, M., Almansour, A.Y., Al-Omari, M.A. (2018), Moderating effect of competitive strategies on the relation between financial leverage and firm performance: Evidence from Jordan. Business and Economic Horizons, 14(3), 626-641.

Al-Rdaydeh, M., Matar, A., Muhammed, J., Ibrahim, H. (2019), Analyzing the effect of credit facilities on firm growth: Evidence from emerging market. Journal of Engineering and Applied Sciences, 14, 195-204.

Audretsch, D.B., Elston, J.A. (2002), Does firm size matter? Evidence on the impact of liquidity constraints on firm investment behavior in Germany. International Journal of Industrial Organization, 20(1), 1-17.

Ayyagari, M., Demirgüç-Kunt, A., Maksimovic, V. (2011), Firm innovation in emerging markets: The role of finance, governance, and competition. Journal of Financial and Quantitative Analysis, 46(6), 1545-1580.

Ayyagari, M., Demirgüç-Kunt, A., Maksimovic, V. (2012), Financing of Firms in Developing Countries: Lessons from Research. World Bank Policy Research Working Paper, No. 6036.

Ayyagari, M., Maksimovic, V. (2007), Firm Innovation in Emerging Markets. Vol. 4157. Washington, DC: World Bank Publications.

Baltagi, B. (2005), Econometric Analysis of Panel Data. United States: John Wiley and Sons.

Becchetti, L., Trovato, G. (2002), The determinants of growth for small and medium sized firms. The role of the availability of external finance. Small Business Economics, 19(4), 291-306.

Beck, T., Demirguc-Kunt, A., Laeven, L., Levine, R. (2008), Finance, firm size, and growth. Journal of Money, Credit and Banking, 40(7), 1379-1405.

Beck, T., Demirgüç-Kunt, A., Maksimovic, V. (2005), Financial and legal constraints to growth: Does firm size matter? The Journal of Finance, 60(1), 137-177.

Berlin, M., Loeys, J. (1988), Bond covenants and delegated monitoring. The Journal of Finance, 43(2), 397-412.

Brown, M., Ongena, S., Popov, A., Yeşin, P. (2011), Who needs credit and who gets credit in Eastern Europe? Economic Policy, 26(65), 93-130.

Carpenter, R.E., Petersen, B.C. (2002), Capital market imperfections, high-tech investment, and new equity financing. The Economic Journal, 112(477), F54-F72.

Chemmanur, T.J., Fulghieri, P. (1994), Reputation, renegotiation, and the choice between bank loans and publicly traded debt. Review of Financial Studies, 7(3), 475-506.

Chen, Z., Cheung, Y.L., Stouraitis, A., Wong, A.W. (2005), Ownership concentration, firm performance, and dividend policy in Hong Kong. Pacific-Basin Finance Journal, 13(4), 431-449.

Chui, A.C., Lloyd, A.E., Kwok, C.C. (2002), The determination of capital structure: Is national culture a missing piece to the puzzle? Journal of International Business Studies, 33(1), 99-127.

Claessens, S., Djankov, S., Fan, J.P., Lang, L.H. (2002), Disentangling the incentive and entrenchment effects of large shareholdings. The Journal of Finance, 57(6), 2741-2771.

Claessens, S., Laeven, L. (2003), Financial development, property rights, and growth. The Journal of Finance, 58(6), 2401-2436.

Das, S. (1995), Size, age and firm growth in an infant industry: The computer hardware industry in India. International Journal of Industrial Organization, 13(1), 111-126.

Delmar, F., Davidsson, P., Gartner, W.B. (2003), Arriving at the high-growth firm. Journal of Business Venturing, 18(2), 189-216.

Delmar, F., McKelvie, A., Wennberg, K. (2013), Untangling the relationships among growth, profitability and survival in new firms. Technovation, 33(8-9), 276-291.

Demirgüç-Kunt, A., Maksimovic, V. (1998), Law, finance, and firm growth. The Journal of Finance, 53(6), 2107-2137.

Diamond, D.W. (1991), Monitoring and reputation: The choice between bank loans and directly placed debt. Journal of Political Economy, 99(4), 689-721.

Elston, J.A. (1993), Firm Ownership Structure and Investment: Theory and Evidence from German Panel Data. WZB Forschungsschwerpunkt Marktprozess und Unternehmensentwicklung. Discussion Papers.

Evans, D.S. (1987), The relationship between firm growth, size, and age: Estimates for 100 manufacturing industries. The Journal of Industrial Economics, 35, 567-581.

Fazzari, S.M., Hubbard, R.G., Petersen, B.C. (1988), Financing constraints and corporate investment. Brookings Papers on Economic Activity, 1988(1), 141-195.

Gilbert, B.A., McDougall, P.P., Audretsch, D.B. (2006), New venture growth: A review and extension. Journal of Management, 32(6), 926-950.

Goaied, M., Sassi, S. (2010), Financial Development and Economic Growth in the MENA Region: What about Islamic Banking Development. Carthage: Institut des Hautes Etudes Commerciales. p1-23.

Guariglia, A., Liu, X., Song, L. (2011), Internal finance and growth: Microeconometric evidence on Chinese firms. Journal of Development Economics, 96(1), 79-94.

Hamouri, B., Al-Rdaydeh, M., Ghazalat, A. (2018), Effect of financial leverage on firm growth: Empirical evidence from listed firms in Amman stock exchange. Investment Management and Financial Innovations, 15(2), 154-164.

Hanif, M. (2010), Differences and similarities in Islamic and conventional banking. International Journal of Business and Social Sciences, 2(2), 26.

Hassan, K., Lewis, M. (2007), Handbook of Islamic Banking. United Kingdom: Edward Elgar Publishing.

Hitt, M.A., Harrison, J.S., Ireland, R.D. (2001), Mergers and Acquisitions. A Guide to Creating Value for Stakeholders. Oxford: Oxford University Press.

Hobdari, B., Jones, D.C., Mygind, N. (2009), Capital investment and determinants of financial constraints in Estonia. Economic Systems, 33(4), 344-359.

Hoshi, T., Kashyap, A., Scharfstein, D. (1993), The Choice Between Public and Private Debt: An Analysis of Post-deregulation Corporate Financing in Japan Working Papers No. 4421. National Bureau of Economic Research.

Hsiao, C. (1986), Analysis of Panel Data. 1st ed. Cambridge, UK: Cambridge University Press.

Hubbard, R.G. (1998), Capital-market imperfections and investment. Journal of Economic Literature, 36, 193-225.

Imam, P.A., Kpodar, K. (2010), Islamic Banking: How has it Diffused? IMF Working Paper. Washington, DC: International Monetary Fund.

Katsikeas, C.S., Piercy, N.F. (1993), Long-term export stimuli and firm characteristics in a European LDC. Journal of International Marketing, 1, 23-47.

Klapper, L., Laeven, L., Rajan, R. (2006), Entry regulation as a barrier to entrepreneurship. Journal of financial Economics, 82(3), 591-629.

Levine, O., Warusawitharana, M. (2014), Finance and Productivity Growth: Firm-level Evidence Working Paper No. 2014-17. Board of Governors of the Federal Reserve System (US).

Ndikumana, L. (1999), Debt service, financing constraints, and fixed investment: Evidence from panel data. Journal of Post Keynesian Economics, 21, 455-478.

Oliveira, B., Fortunato, A. (2006), Firm growth and liquidity constraints: A dynamic analysis. Small Business Economics, 27(2-3), 139-156.

Omet, G., Mashharawe, F. (2002), The Capital Structure Choice in Tax Contrasting Environments: Evidence from the Jordanian, Kuwaiti, Omani and Saudi Corporate Sectors. Paper Presented at the The Economic Research Form 10 Annual Conference. Available from: http://www.citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.62 1.9841&rep=rep1&type=pdf.

Papadakis, V. (2007), Growth through mergers and acquisitions: How it won't be a loser's game. Business Strategy Series, 8(1), 43-50.

Rahaman, M.M. (2011), Access to financing and firm growth. Journal of Banking and Finance, 35(3), 709-723.

Saeed, A. (2001), Islamic Banking and Interest: A Study of the Prohibition of Riba and its Contemporary Interpretation. New York: EJ Brill.

Saeed, A. (2009), Does nature of financial institutions matter to firm growth in transition economies. Eurasian Journal of Business and Economics, 2(3), 73-90.

Schmukler, S.L., Vesperoni, E. (2006), Financial globalization and debt maturity in emerging economies. Journal of Development Economics, 79(1), 183-207.

Shabani, V., Miraghaei, S.M., Shabani, V. (2014), The impact of the credit facilities granted Islamic banking network on the growth of the private sector investment: A study of Iran (1996-2006). Management and Administrative Sciences Review, 3(4), 706-712.

Siddiqi, M.N. (2002), Comparative Advantages of Islamic Banking and Finance. Paper Presented at the Harvard University Forum on Islamic Finance.

Sleuwaegen, L., Goedhuys, M. (2002), Growth of firms in developing countries, evidence from cote d'ivoire. Journal of Development Economics, 68(1), 117-135.

Storey, D.J. (2016), Understanding the Small Business Sector. London: Routledge.

Sundararajan, V., Errico, L. (2002), Islamic Financial Institutions and Products in the Global Financial System: Key Issues in risk Management and Challenges Ahead. Vol. 2. International Monetary Fund. Working Paper.

Ullah, B., Wei, Z. (2017), Bank financing and firm growth: Evidence from transition economies. Journal of Financial Research, 40(4), 507-534.

Volk, M., Trefalt, P. (2014), Access to credit as a growth constraint. Journal of Banking and Financial Economics, 1(1), 29-39.

Weill, L., Godlewski, C. (2012), Why do Large Firms go for Islamic Loans? University of Strasbourg Laboratoire de Recherche en Gestion et Economie Working Paper, (2012-05).

Wiklund, J. (1998), Small firm Growth and Performance: Entrepreneurship and Beyond. Jönköping: Internationella Handelshögskolan.

Yaffee, R. (2003), A Primer for Panel Data Analysis. New York: Connect Information Technology. p1-11.

Yasuda, T. (2005), Firm growth, size, age and behavior in Japanese manufacturing. Small Business Economics, 24(1), 1-15.

Yusof, R.M., Bahlous, M. (2013), Islamic banking and economic growth in GCC and East Asia countries: A panel cointegration analysis. Journal of Islamic Accounting and Business Research, 4(2), 151-172.

Zaher, T.S., Hassan, M.K. (2001), A comparative literature survey of Islamic finance and banking. Financial Markets, Institutions and Instruments, 10(4), 155-199.