


**ISLAMIC INVESTMENT FINANCING AND COMMERCIAL BANKS FACILITIES:
MEDIATION EFFECT OF THE ISLAMIC BANK SIZE**

Arshed Fouad Altameemi^A, Zaher Abdel Fattah Al-Slehat^B



ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 02 August 2022</p> <p>Accepted 01 November 2022</p>	<p>Purpose: The objective of this study was to investigate the effect of Islamic financing on commercial banks' credit facilities tested under the mediation of the two variables of Islamic bank size (Total asset and Investment deposit).</p> <p>Theoretical Framework: Even though studies of Islamic banking funding have been done within the Islamic economics and finance context, there has been needed to explore the effect of mediating the size of the Islamic bank and the relationship between Islamic financing and commercial banks' credit facilities.</p>
<p>Keywords:</p> <p>Commercial Banking; Commercial Bank Facilities; Islamic Banking; Islamic Finance; Size.</p> <div data-bbox="172 1025 480 1272" style="text-align: center;">  </div>	<p>Design/Methodology/Approach: We used the methodologies of Baron and Kenny (1986) and Preacher and Hayes (2008) to test a mediation effect of the Islamic bank size variable. Regarding the testing and validity of the hypothetical research model, path analysis was used within the structural equation modeling analysis. The study sample consists of 16 commercial and Islamic banks in the Jordanian banking sector, it is comprehensive of all listed banks' data in the Amman stock exchange, to the possibility of fairly generalizing the results to the community.</p> <p>Finding: Results indicate that the two variables of size indicators may partially mediate the direct effect of Islamic financing on commercial banks' credit facilities. Such an effect is statistically significant. The findings provide practical solutions to enhancing competition in the Jordanian commercial and Islamic banking services market through various Islamic financing services to maintain and sustain banking resources.</p> <p>Research, Practical & Social implications: Future studies can consider other indicators of Islamic bank size and assess their influence on the various dimensions of the relationship between Islamic funding methodology and commercial bank facilities</p> <p>Implications/Originality/Value: This study contributes to the literature on Islamic banking by analyzing the results of the effect of Islamic investment financing formulas on the commercial credit market in Jordanian banking, and it offers a practical and applied perception of the role played of the Islamic banking methodology in the Jordanian commercial credit market.</p> <p>Doi: https://doi.org/10.26668/businessreview/2022.v7i4.e458</p>

^A Full Professor. Baghdad College of Economic Science University. E-mail: altameemiarshed@gmail.com
Orcid: <https://orcid.org/0000-0003-4088-7921>

^B Associate Professor. Department of Business Economic. Business Faculty. Tafila Technical University. P.O Box 179, 66110, Tafila, Jordan. E-mail: Zalabadi@yahoo.com Orcid: <https://orcid.org/0000-0003-4544-4097>

FINANCIAMENTO DE INVESTIMENTOS ISLÂMICOS E INSTALAÇÕES DE BANCOS COMERCIAIS: EFEITO DE MEDIAÇÃO DO TAMANHO DO BANCO ISLÂMICO

Objetivo: O objetivo deste estudo era investigar o efeito do financiamento islâmico sobre as facilidades de crédito dos bancos comerciais testadas sob a mediação das duas variáveis do tamanho do banco islâmico (Ativo total e Depósito de investimento).

Estrutura teórica: Embora estudos de financiamento bancário islâmico tenham sido feitos dentro do contexto econômico e financeiro islâmico, foi necessário explorar o efeito da mediação do tamanho do banco islâmico e a relação entre financiamento islâmico e facilidades de crédito dos bancos comerciais.

Projeto/Metodologia/Proteção: Usamos as metodologias de Baron e Kenny (1986) e Preacher e Hayes (2008) para testar um efeito de mediação da variável tamanho do banco islâmico. Com relação ao teste e validade do modelo de pesquisa hipotético, foi utilizada a análise do caminho dentro da análise da modelagem da equação estrutural. A amostra do estudo consiste de 16 bancos comerciais e islâmicos no setor bancário jordaniano, é abrangente de todos os dados dos bancos listados na bolsa de valores de Amã, para a possibilidade de generalizar razoavelmente os resultados para a comunidade.

Encontrando: Os resultados indicam que as duas variáveis dos indicadores de tamanho podem mediar parcialmente o efeito direto do financiamento islâmico sobre as facilidades de crédito dos bancos comerciais. Tal efeito é estatisticamente significativo. Os resultados fornecem soluções práticas para aumentar a concorrência no mercado jordaniano de serviços bancários comerciais e islâmicos através de vários serviços de financiamento islâmico para manter e sustentar os recursos bancários.

Pesquisa, implicações práticas e sociais: Estudos futuros podem considerar outros indicadores do tamanho dos bancos islâmicos e avaliar sua influência nas várias dimensões da relação entre a metodologia de financiamento islâmico e as facilidades dos bancos comerciais.

Implicações/Originalidade/Valor: Este estudo contribui para a literatura sobre bancos islâmicos, analisando os resultados do efeito das fórmulas de financiamento de investimentos islâmicos no mercado de crédito comercial na Jordânia e oferece uma percepção prática e aplicada do papel desempenhado pela metodologia bancária islâmica no mercado de crédito comercial jordaniano.

Palavras-chave: Banco Comercial, Facilidades Bancárias Comerciais, Banco Islâmico, Finanças Islâmicas, Tamanho.

FINANCIACIÓN DE LA INVERSIÓN ISLÁMICA Y FACILIDADES DE LOS BANCOS COMERCIALES: EFECTO DE MEDIACIÓN DEL TAMAÑO DEL BANCO ISLÁMICO

RESUMEN

Propósito: El objetivo de este estudio fue investigar el efecto de la financiación islámica en las facilidades de crédito de los bancos comerciales probadas bajo la mediación de las dos variables del tamaño del banco islámico (Activo total y Depósito de inversión).

Marco teórico: Aunque se han realizado estudios sobre la financiación bancaria islámica en el contexto de la economía y las finanzas islámicas, ha sido necesario explorar el efecto de la mediación del tamaño del banco islámico y la relación entre la financiación islámica y las facilidades crediticias de los bancos comerciales.

Diseño/Metodología/Enfoque: Utilizamos las metodologías de Baron y Kenny (1986) y Preacher y Hayes (2008) para probar un efecto de mediación de la variable tamaño del banco islámico. En cuanto a la comprobación y validez del modelo hipotético de investigación, se utilizó el análisis de trayectorias dentro del análisis de modelos de ecuaciones estructurales. La muestra del estudio está formada por 16 bancos comerciales e islámicos del sector bancario jordano, y abarca todos los datos de los bancos que cotizan en la bolsa de Ammán, con el fin de poder generalizar los resultados a la comunidad.

Conclusiones: Los resultados indican que las dos variables de los indicadores de tamaño pueden mediar parcialmente el efecto directo de la financiación islámica en las facilidades de crédito de los bancos comerciales. Dicho efecto es estadísticamente significativo. Las conclusiones aportan soluciones prácticas para mejorar la competencia en el mercado jordano de servicios bancarios comerciales e islámicos mediante diversos servicios de financiación islámica para mantener y sostener los recursos bancarios.

Investigación, implicaciones prácticas y sociales: Los estudios futuros pueden considerar otros indicadores del tamaño de los bancos islámicos y evaluar su influencia en las diversas dimensiones de la relación entre la metodología de financiación islámica y los servicios de los bancos comerciales.

Implicaciones/Originalidad/Valor: Este estudio contribuye a la literatura sobre la banca islámica al analizar los resultados del efecto de las fórmulas de financiación de la inversión islámica en el mercado de crédito comercial de la banca jordana, y ofrece una percepción práctica y aplicada del papel que desempeña la metodología bancaria islámica en el mercado de crédito comercial jordano.

Palabras clave: Banca comercial, facilidades bancarias comerciales, banca islámica, finanzas islámicas, tamaño.

INTRODUCTION

The prospects of the Islamic banking industry warrant investigation because it has brought a qualitative leap in manufacturing financial and banking products and services. In addition, under Islamic Shari'ah principles, the Islamic banking industry has generated a new and diversified banking method with an economic nature, that is, by prohibiting interest by taking and giving. The success of the Islamic banking industry and its expansion through more than 505 banking institutions in more than 69 countries (Islamic Finance Development Indicator, 2018) is a result of oil revenues in the countries of the Arab Gulf and the Islamic communities' effort to spread Shari'ah principles across all economic activities (Bitar et al., 2019). Besides, Islamic banks present attractive alternatives in investing money, including the service structure, product, and approval of many clients in the banking sector in general and the Islamic banking sector in particular.

The Islamic banking philosophy considers that money is not producing anything of value unless mixed with work based on the philosophy of real investment in economic transactions. In other words, it is investing cash to deliver goods and services rather than lending money to create cash, as is the philosophy of commercial banking. The fundamental rules of the Islamic banking philosophy differ from commercial ones in terms of employment, investment of financial resources, service provision, and product. This Islamic philosophy presents a significant challenge in the commercial credit market, changing the traditional banking model and modernizing its business model, particularly the credit market (Risfandy et al., 2020).

The banking industry's competitiveness will result in higher efficiency and better innovation, leading to a greater variety of products, lower prices, higher consumer welfare, lower market power, and better access to financial products and services (Rahim, 2016, 19). In addition, the structural changes in the banking market, the diversity of the banking business models, and the growth of the Islamic banking industry have generated a problem in the future and nature of commercial banking in the Jordanian market. Therefore, the effect of these challenges on the business model of retail banking should be investigated, especially in light of the liberalization and openness of the Jordanian banking market. This study tries to determine the elements by answering the following question: Do Islamic banks affect the bank credit market for local commercial banks in Jordan, given the mediating role of bank size?

Based on the above discussion, this study investigates the challenges generated by the Islamic banking industry (specifically in investment finance) for the business model of commercial banks operating in the Jordanian banking sector. The entry of Islamic banks into the Jordanian banking market has changed the structure of the market's work philosophy and brought about a fundamental shift in competition and the banking strategy in general. Consequently, this sector has become the focus of the scholarly investigation. The research contribution of discussing the effect of Islamic investment financing on the commercial credit market in Jordan is evident according to the relevant knowledge and literature. In this context, this study seeks to achieve the following objectives: (i) To investigate the effect of Islamic investment financing on the credit market of commercial banks, given the development of the Islamic banking industry witnessed by the banking market in general and Jordan and (ii) To describe the role of Islamic banking finance in developing and diversifying the banking products in Jordan.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Nature of Islamic Investment Financing

Unlike commercial banks, Islamic investment financing is subject to lower risks because its reliance on the principle of profit and loss division in financing contracts allocates a large part of its assets to finance its investment activities (Ariss, 2010). However, Islamic investment financing may sometimes face more significant challenges than commercial banks in dealing with the risks of some investment financing products, especially in Murabaha and Musharaka financing contracts or the loss of a specific product (Venardos, 2006). Besides, the risk of the counterparty (client) is more interested in Islamic banks because contracts in the Islamic financial system operate according to "prevention of gharar" (uncertainty) and freedom contracting. They represent an element to contain information asymmetry and any unknown or legitimate profit. These two dimensions do not constitute an issue in credit facilities in commercial banks as they operate on the principle of interest (Al-Fawwaz et al., 2016; Al-Fawwaz and Al-Rawashdah, 2019, 78).

In managing financial crises, Islamic banking presents a successful model through its real investments, which withstood the recent financial crisis of 2007. The real value of their investment was unaffected directly, unlike commercial banks. Instead, the indirect effect was the result of all economic sectors, without exception, falling under the weight of the decrease in cash flows of projects financed by Islamic banks, which prevented their bankruptcy, as what happened in the commercial banking sector.

Therefore, Islamic banks that became part of the global financial crisis solution are the least affected by the causes and consequences of the crisis (Belkaid and Abdelkader, 2018, 27). Moreover, the system of Islamic banking operations is capable of continuity, survival, and competition under conditions of financial crises. On the contrary, the financing operations of most traditional banks are manifested in bankruptcy and liquidation (Abdal-Majeed et al., 2013, 36).

Al-Beltagy (2005) built an accounting model to evaluate the means of investment in Islamic banks (Murabaha, Mudaraba, Musharaka) in the United Arab Emirates. He stated that the financing includes high risk and that standard indicators for the banking industry are lacking. Abu Muhaimid (2008) identified the risks of Islamic financing forms and their relationship to the decisions of the Basel II Committee regarding capital adequacy in Islamic banks. He concluded that the Islamic banks use parallel contracts, binding promises, and options to manage risks (credit, market, and operational). These risks differ from commercial banks' risks. Samiran et al. (2011) focused on contemporary Islamic banks' problems, obstacles, ambitions, and future vision. They also studied how to address issues related to interest and avoid the Riba and strict adherence to Shari'ah principles; besides, they dealt with the rule of the Ghonim in terms of bearing the loss. Mohammed (2012) concluded that the experience of the Islamic Bank of Iraq achieved a favorable position in the minds of its customers, combining its dimensions of quality banking service, customer care, fame, safety, and application of Islamic Shari'ah principles. Based on the above previous studies, the researchers develop the following hypotheses:

H1: Islamic investment financing directly affects commercial banks' credit facilities.

H2: Islamic investment financing directly affects the assets of Islamic banks.

H3: Islamic investment financing directly affects the investment deposits of Islamic banks.

Islamic investment financing methods

The key models of investment financing contracts in Islamic banks are Mudaraba, Murabaha, Musharaka, Ijarah, Salam, Forward Price Sale, Istisna'a, and Sukuk. These models are based on profit and loss arrangements and are subject to the Islamic banking principles (Lewis, 2007, 2-3):

1. Prohibition of usury in all transactions and financing
2. The principle of halal is legal and mandatory for all investment and commercial activities.

3. It is not subject to adventure and speculation (prohibition of gambling), and all transactions are free from deception and paid.
4. Zakat for social purposes
5. All transactions are subject to advise and supervision by the Shari'ah board of the bank to verify their compliance with the principles of Islam.

Under these requirements, the management of Islamic banks tends to invest funds in projects and transactions that develop the Islamic economy and enhance the competitive positions in the banking market. In addition, obtaining cheap sources of financing that enhance banks' profits is an essential source of equity, especially if they are reinvested in economically productive businesses, able to withstand the shocks of crises, and contribute to the stability of the financial system. Therefore, managers in Islamic banks can increase their investment in risky assets and keep only smaller amounts of capital because of the negative relationship between risk-based capital and Islamic banks' risk-taking behavior (Abbas et al., 2022).

Ahmed and Maimon (2018) measured the relative efficiency of the five largest Arab Islamic banks and the three largest Arab traditional banks regarding assets. According to the fixed model, two traditional banks (Abu Dhabi and Al Ahli Saudi) achieve a 100% efficiency index and, simultaneously, monetary and volumetric efficiency according to the changing model. By contrast, only two Islamic banks achieve economic efficiency (Abu Dhabi Islamic and Qatar Islamic).

Belkaid and Abdelkader (2018) concluded that Arab Islamic banks, specifically in the Arab Gulf region, have succeeded in facing the global financial crisis, unlike conventional banks. This is reflected in the ability of these banks to develop their financial capabilities as a contributor to economic development. These banks achieved a volumetric efficiency with a savings orientation of 0.85 compared with 0.27 by commercial banks. The study recommended the need to develop an Islamic economic system that lives up to the aspirations of the Arab community to sustain this superiority in efficiency over commercial banks. Pratomo and Ismail (2006) concluded that the size of the Islamic bank, the percentage of credit facilities, and the portion of financial investments affect profitability. In addition, Octrina and Mariam (2021) indicated that factors that affect the efficiency of Islamic banking in Indonesia are bank size, capital adequacy ratio, non-performing financing, and financing to deposit ratio. Based on the above previous studies, the researchers develop the following hypotheses:

H4: The assets of Islamic banks directly affect commercial banks' credit facilities.

H5: The investment deposits of Islamic banks directly affect commercial banks' credit facilities.

Islamic Banking Methodology Versus Commercial Banking Philosophy

Islamic banks are investment financial institutions that have a developmental, humanitarian, and social mission that aims to collect funds and achieve optimal use of resources based on the rules and provisions of Shari'ah principles to build an Islamic community of solidarity (Al-Quraishi and Abdul Karim, 2012, 45). They are financial institutions that collect money from the community and employ it in various investment forms according to Shari'ah principles to balance justice and investment benefits to improve the community's living standards (Octrina and Marina, 2021, 751). Improving society's living standards requires the investment of funds in real economic sectors producing goods and services to ensure the stability and sustainability of their operations (Zariyawati et al., 2016; Hilkevics and Semakina, 2019).

The critical difference between Islamic and commercial banks, in theory, is the prohibition of Riba (interest), seeing that Islamic financial services are subject to Shari'ah principles. Therefore, it is also called interest-free banking (Salman and Nawaz, 2018). However, Islamic banking is not restricted to dealing with Islamic societies exclusively. Many society segments wish to obtain Islamic services because they represent contemporary practical applications within a comprehensive development of the economy in general and the Islamic economy in particular. The Islamic banking industry emerged in 1940. Since 1974, an integrated regulatory framework was followed, involving the number of banks established, the diversity of financing products, and the relationship between the banks and the development of the Islamic economy system (Abdullah, 2021, 242).

The Islamic banks became competitive and posed a significant challenge to the business model of traditional banking schools. The motivation for the phenomenon of commercial banks' transformation is entirely (changing the financing philosophy of the bank) or partially (opening windows and branches) due to Islamic banking on the Arab and international levels.

Legislators have made tremendous efforts to help govern the competitive elements in the banking sector in light of the widespread Islamic banking methodology since 1974. This has motivated commercial banks to modernize their business model in line with the contemporary challenges in the banking sector. The competition is increasing in the banking sector owing to the diversity of commercial banking business models and the working Islamic philosophy. However, this competition may not necessarily be the condition for the adoption of serious risks that may weaken the capabilities of the banking market to provide distinguished activities to customers and make it unable to face uncertainty in interest rates (Ramlee and Ghazali, 2006, 73). Besides, commercial banks may adopt a policy of raising the interest rate

on deposits to mitigate competition pressures, especially when demand forces for their activities are low (Hellmann et al., 2000).

Hamiltona et al. (2010) indicated that the Jordanian Islamic banks are less efficient in cost than the traditional ones, which are less efficient in profit. Humairoh and Usman (2016) analyzed the nature of competition in the Islamic banking market in Malaysia. The results show a positive correlation of banking costs with revenues, and the nature of competition is monopolistic. Mater (2017) evaluated the performance of commercial banks compared with that of Islamic banks in Jordan using financial ratio analysis (liquidity, profitability, risk ratios, and solvency) for the two groups of banks. The results indicate little difference between the profitability of Islamic and commercial banks in Jordan. The commercial banks' performance is better than that of Islamic banks. In addition, Islamic banks are less risky than commercial banks and less affected by financial crises and economic fluctuations.

Isnurhadi et al. (2021) examined the global relationship between bank capital, efficiency, and risk in 129 Islamic banks. The results state that the bank's capital positively affects its stability and negatively affects the credit risk (expressed as the loan loss allowance for total liabilities). Efficiency encourages banks to reduce risks and is expected to motivate banks to create regulations related to sustaining capital management efficiency and act prudently to maintain performance by mitigating risks. Accordingly, the following hypotheses is developed:

H6: The assets of Islamic banks mediate the direct effect of Islamic investment financing on commercial banks' credit facilities.

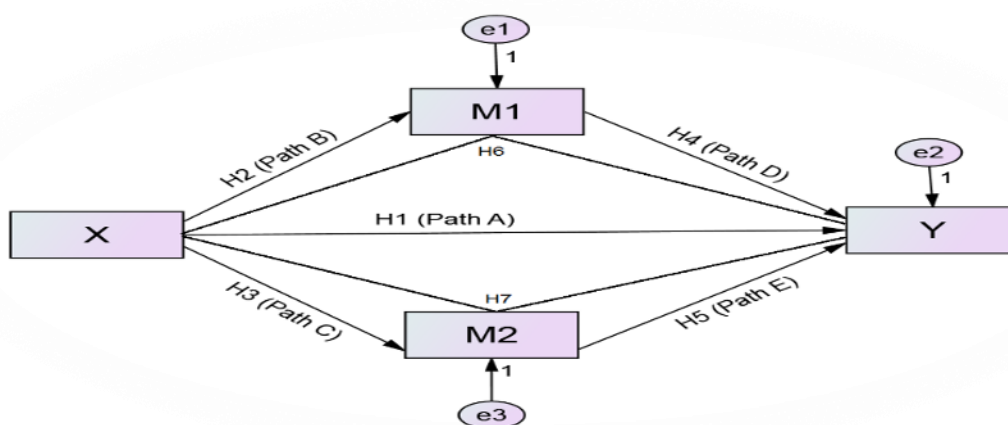
H7: The investment deposits of Islamic banks mediate the direct effect of Islamic investment financing on commercial banks' credit facilities.

DATA AND METHODOLOGY

Empirical Model and Hypotheses

The following model is adapted based on the methodologies of Baron and Kenny (1986) and Preacher and Hayes (2008) to express the study problem, questions, and features concerning the effect of bank size (mediator variable) on the relationship between Islamic investment financing and credit facilities of commercial banks. The study model specification is expressed as follows, presents in Figure 1 (Dmming et al., 2017; Turnes and Ernst, 2015):

Figure (1) The model of study



Baron and Kenny Methodology

Based on Baron and Kenny’s recommendation, the three conditions to formulate the mediation effect (Baron & Kenny, 1986, 1176) are as follows:

1. Variations in the independent variable significantly account for variations in the presumed mediator (i.e., paths B and C).
2. Variations in the mediator significantly account for variations in the dependent variable (path D & E).
3. When paths (B, D, C, and E) are controlled, a previously significant relationship between the independent and dependent variables is no longer statistically significant. The most important demonstration of mediation occurs when path A is zero.
4. As condition (path A) requires a significance test for direct path A, paths B, D, C, E, and A are tested and estimated by the following equation forms (Zhao et al., 2010, 198):

$$M = i_1 + B X + e_1$$

$$Y = i_2 + c' X + e_1$$

$$Y = i_3 + B X + D M + e_1$$

$$Y = i_3 + C X + E M + e_1$$

Preacher and Hayes Methodology

In the Preacher and Hayes approach, mediation refers to the independent variable affecting the dependent variable through overlapping variables. For example, the mediating effect of X on Y is usually called the total effect (Kumar et al., 2018). Bootstrapping approach

is the most recent mediation effect analysis (Demming et al., 2017; Agler and Boeck, 2017; Preacher and Hayes (2004); Hayes and Rockwood, 2020). It is a non-parametric approach and avoids the problem of assumptions. It performs an accurate test for the indirect effect even in small samples and provides more power in detecting direct effects.

Preacher and Hayes's methodology depends on two conditions:

1. The first condition is that the relationship between the independent and dependent variables is statistically significant in the presence of the mediating variable.
2. The second condition verifies intermediate variables' effect through bootstrap upper and lower limits at a confidence level of 95%.

Study Population and Its Sample

The study population is all commercial and Islamic banks listed on the Amman Stock Exchange. The study sample consists of 16 commercial and Islamic banks, including 3 Islamic banks and 13 commercial banks in the Jordanian banking sector. The selection sample is based on the following conditions, ensuring the comprehensiveness of data and the possibility of fairly generalizing the results to the community.

1. All data for the study sample are available under examination and analysis during the study period.
2. They continue to trade on the Amman Stock Exchange.
3. Financial reports are available on December 31 of each fiscal year.
4. Al-Rajhi Islamic Bank is excluded from the study population because it does not have the above conditions.
5. The study sample constitutes 94% of the total banks listed on the Amman Stock Exchange (Amman Stock Exchange, 2021).

Data Collection, Information, and Statistical Methods

Books, periodicals, and research articles published in accredited scientific journals have enriched the theoretical aspect. The extracted data related to the research variables are from the annual financial reports of the banks published on the Amman Stock Exchange website, covering a period of 20 years (2000–2019).

Regarding the testing and validity of the hypothetical research model, path analysis is used within the structural equation modeling analysis. This modeling is considered appropriate for testing this hypothesis and measuring direct and indirect relationships between the research variables (Karagoz, 2016; Hoyle, 1995).

Variable Measurement

1. Islamic investment financing: The Islamic investment financing model is embodied in many fields that take into account in its structure the principle of prohibition of interest, including Murabaha, Musharaka, lease financing, and speculation. This study relies on the size of finances announced in the annual financial reports of the banks (forward sales receivables, lease-to-own assets, and Alhasnh loans).
2. Credit facilities in commercial banks: The credit facilities in commercial banks are represented by direct credit facilities, including all loans, discounting bills of exchange, debit current accounts, and indirect credit facilities such as a letter of guarantee and credit. These facilities may be short, medium, or long-term with or without a warrant (Al-Amad, 2020; Al-Rqeebat, & Al-Fawwaz, 2016; Latif and Attia, 2020). The study relies on the size of the net credit facilities published in the annual financial reports of the banks under examination and analysis.
3. Bank size: is one of the essential variables in dealing with scientific and applied phenomena in banking. In this study, two variables are adopted to measure the Islamic bank size, namely, total assets and total deposits, which are based on their natural logarithm (Talebniya et al., 2010; Dang and Li, 2015).

RESULTS AND DISCUSSIONS

Pearson Correlation

Table (1) refers to the Pearson correlation matrix between the study variables. All variables have positive relationships with one another at less than (80%), indicating no problem with a linear correlation between the variables (Gujrati et al., 2012)

Table (1) Implied (for all variables) Correlations (Group number 1 - Default model)

	X	M2	M1	Y
X	1.000			
M2	.448	1.000		
M1	.435	.195	1.000	
Y	.740	.624	.610	1.000

Confirmatory Factor Analysis

To verify the validity and adequacy of the study model, a set of necessary tests are performed through confirmatory factor analysis to assess whether the model provides an excellent fit to the data through a set of indicators (Hox and Bechger, 2014). The results in

Table (2) indicate the appropriateness of the proposed model through a set of measurement indicators (Sahraoui and Bouselb, 2016; Azouz, 2018) and according to the following:

1. Absolute matching indicators: Two tests are performed. The first test is represented by the RMSEA index with a value of (0.000), which is an exact match value and indicates that the model matches the data significantly (Hair et al., 2014). The second test is represented by the GFI index, with a value of (0.993). The results indicate that the model achieves the best values and thus shows suitability (Schermelleh-Engel et al., 2003). In addition, the significance level of the assumed model is (0.631), which is not statistically significant at (0.05 or 0.1), so the model is excellent and identical to the data.
2. Increasing conformity indicators: They indicate the incremental extent of approval of the results. They include several indicators: The Comparative Conformity Index (CFI) with a value of 1000, the Incremental Conformity Index (IFI) with a value of (1000), the Standard Conformity Index with a value of (0.993), and the Good Conformity Index, whose average is (0.934). The value of CFI and IFI indicates the best fit of the model. All the values that increased matching indicators explain that the data fit the model well and that the study model is suitable and acceptable (Mezo and Short, 2012).
3. The firmness index fully accepts the study model as the value of this indicator is (0.256). This value is considered acceptable as it should be less than two if the sample size is less than 100 (Badawi, 2016). Therefore, the study model is entirely satisfactory.
4. The hypothetical model supports the validity of the assumptions related to the correlations and effects between the study variables. All indicators are also within their acceptable limits, so the hypothesized model is good (Arbuckle, 2008).

Table (2) Model –Data Fit Indication

Fitness Indexes	Measures	Value of Index	Support
Indication	Chi-square (X^2)	0.256	--
	Degrees of freedom (df)	1	--
	Probability level	0.613	Not significant
Absolute Fit Level	Root Mean Square Error of Approximation (RMSEA) < 0.05	0.000	Accepted
	Goodness-of- Fit Index (GFI) > 0.90	0.993	Accepted
Incremental Fit Level	Adjusted Goodness of Fit Index (AGFI) > 0.95	0.934	Accepted
	Normative Fit Index (NFI) > 0.95	0.993	Accepted
	Incremental Fit Index (IFI) > 0.90	1.000	Accepted
	The Comparative Fit Index (CFI) > 0.95	1.000	Accepted
Parsimonious Fit Index	Parsimonious Fit Index, $c X^2/DF < 5$	0.256	Accepted

Hypothesis Testing

Table (3) and Figure (2) shows the results of the path analysis test for the first five hypotheses (direct effect).

1. First hypothesis test

The path A hypothesis test results indicate that the t-test confirms the significance of the regression coefficient of (0.497) for the relationship between Islamic investment financing and commercial banks' credit facilities, at a significance level of less than (0.05). It also explains (56.2%) of the variance in the credit facilities offered by commercial banks. In addition, the D.W. value of (1.98) indicates no autocorrelation between the errors included in the regression equation because its value is within the acceptable limits of the test. Therefore, H1 is accepted.

2. Second hypothesis test

The results of the path test (B) represented by $(X \dots > M1)$ are related to the direct effect of Islamic investment financing on the Islamic Bank size (expressed in the assets of Islamic banks). The D.W. value of (2.53) indicates no existence of a self-correlation between the errors included in the regression equation because its value is within the acceptable limits of the test. The beta coefficient of (0.672) confirms the significant relationship between Islamic investment financing and Islamic bank size, expressed in the assets of Islamic banks with a probability level of less than (0.05), according to the t-test value of (2.108). In comparison, the value of the determination factor ($R^2 = 0.190$) indicates that Islamic financing has a statistically significant effect and explains (19%) of the discrepancy in the assets of Islamic banks, which enhances the acceptance of H2.

3. Third hypothesis test

The results of path analysis C show a direct effect of Islamic investment financing on Islamic bank size, expressed in the total investment deposits of Islamic banks. This effect is because the beta value (0.565) is statistically significant at a level (0.029) according to the calculated t-test, which is less than (0.05). In addition, the D.W. (2.4) is an acceptable limit because this test enhances the ability of Islamic finance to explain the variance in the investment deposits of Islamic banks according to the value of the coefficient of determination ($R^2 = 20.1\%$). Accordingly, Islamic investment financing directly affects the investment deposits of Islamic banks.

4. Fourth hypothesis test

The results of the path hypothesis test D indicate that the t-test with the calculated value of (2.828) confirms the significance of the regression coefficient of (0.271) for the direct

effect of the assets of Islamic banks on the credit facilities of the commercial banks and at a statistically significant level less than (0.05). Moreover, Islamic bank size, expressed in the assets of Islamic banks, explains (34%) of the variance in the credit facilities offered by commercial banks. The D.W. value of (1.68) indicates no autocorrelation between the errors included in the regression equation because its value is within the acceptable limits of the test, reinforcing the acceptance of H4.

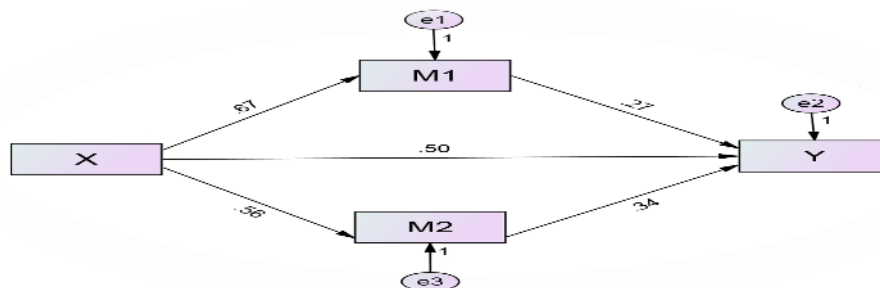
5. Fifth hypothesis test

The results of path analysis E related to the direct effect of Islamic bank size explain that the value of D.W. (2.09) confirms no autocorrelation between the errors involved in the regression equation because it is within the acceptable limits of the test. The beta coefficient (0.343) demonstrates the significant correlation between investment deposits of Islamic banks and facilities of commercial banks with a probability level of less than (0.05), based on the calculated t-test value of (2.898). The value of determination factor (R^2) states that the investment deposits of Islamic banks explain (35.8%) of the variance in commercial banks' credit facilities. Thus, H5 is accepted.

Table (3) Regression Weights: (Group number 1 - Default model)

Variables	SPSS output			AMOS output						
	R ²	Adjusted R ²	D.W.	Estimate	S.E.	C.R.	P	Effect type	Label	Support
Y <----- X	0.562	0.537	1.98	.497	.162	3.061	.002	Direct	H1	Accepted
M1 <----- X	0.190	0.144	2.53	.672	.319	2.108	.035	Direct	H2	Accepted
M2 <----- X	0.201	0.156	2.42	.565	.258	2.185	.029	Direct	H3	Accepted
Y <----- M1	0.340	0.303	1.68	.271	.096	2.828	.005	Direct	H4	Accepted
Y <----- M2	0.358	0.323	2.09	.343	.118	2.898	.004	Direct	H5	Accepted

Figure (2) Estimated Structural Model (SEM)



Analysis of the results of the sixth hypothesis test

Tables (4 and 5) and Figure (3) present the results of the mediating role analysis (total assets) for the direct effect of Islamic investment financing on the credit facilities of commercial banks. They are based on the paths mentioned in the table.

The value of the regression coefficient (0.712) for the effect of the independent variable (X) on the dependent variable (Y) is statistically significant at a level less than (0.05), which is higher than its value in Table (3) (0.497), in the case of presence of the mediator (M1) total assets.

According to the test by Baron and Kenny (1986), the three conditions necessary for the test are fulfilled. The regression coefficient for the direct effect is (0.712) with a statistical significance of less than (0.05) and closer to zero than the total effect shown in Table (5), whose value is (0.872). Therefore, H6 can be accepted. The assets of Islamic banks mediate, in part, the direct effect of Islamic investment financing on commercial banks' credit facilities.

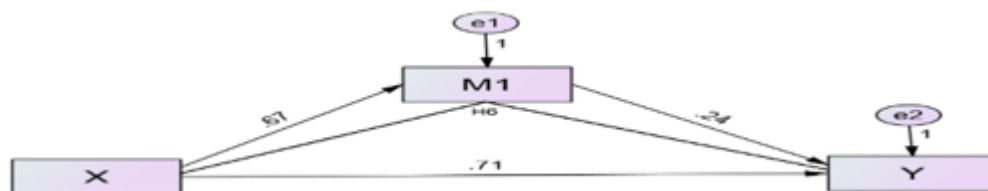
Table (4) Regression Weights: (Group number 1 - Default model).

			Estimate	S.E.	C.R.	P
M1	<---	X	.672	.319	2.108	.035
Y	<---	M1	.239	.115	2.080	.037
Y	<---	X	.712	.177	4.015	***

Table (5) Total Effects (Group number 1 - Default model)

	X	M1
M1	.672	.000
Y	.872	.239

Figure (3) Sixth Hypotheses Path based on Baron & Keny



Analysis of the results of the seventh hypothesis test

Tables (6 and 7) and Figure (4) display the results of the analysis effect of the Islamic bank size (mediating role) on the direct impact of Islamic investment financing on the credit facilities of commercial banks based on the paths mentioned in the table. The regression coefficient value for the independent variable (X) effect on the dependent variable (Y) is (0.701). It is statistically significant at a level less than (0.05), which is higher than its value in Table (3) (0.343) in the presence of the median variable size (M1) of total investment deposits.

According to the test by Baron and Kenny (1986), the three conditions necessary for the test are fulfilled. The regression coefficient for the direct effect has statistical significance because the p-value is less than (0.05). It is closer to zero than the total effect shown in Table (7), which is (0.872). Therefore, H7 can be accepted. The total investment deposits of Islamic

banks mediate, in part, the direct effect of Islamic investment financing on commercial banks' credit facilities.

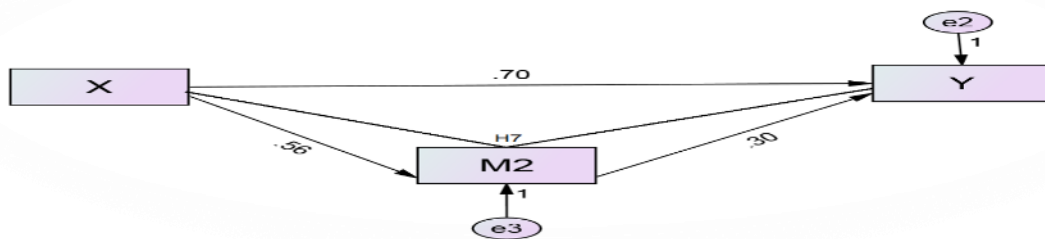
Table (6) Regression Weights: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P
M2	<--- X	.565	.258	2.185	.029
Y	<--- M2	.304	.141	2.161	.031
Y	<--- X	.701	.177	3.954	***

Table (7) Total Effects (Group number 1 - Default model)

	X	M2
M2	.565	.000
Y	.872	.304

Figure (4) Seventh Hypotheses Path based on Baron & Keny



Analysis of the results of the average effect test for the Islamic bank size (together)

Preacher and Hayes's 2008 methodology is used to test the effect of the presence of the size variables together, as shown in Table (8). Based on the fulfillment of the first condition in H6 and H7, the minimum confidence period amounts to (0.091). The maximum confidence period reaches (0.910). As zero does not interrupt them and the significance level is (0.011), it is less than 0.05. Therefore, the two intermediate variables representing Islamic bank size (investment assets and deposits) partially mediate the direct effect of Islamic investment financing on commercial banks' credit facilities. This result supports those achieved under the Baron and Kenny methodology for each variable.

Table (8) Bootstrap confidence interval (Lower and Upper level)

<i>Indirect Effects - Lower Bounds (B.C.) (Group number 1 - Default model)</i>				<i>Indirect Effects - Upper Bounds (B.C.) (Group number 1 - Default model)</i>				<i>Indirect Effects – Two-Tailed Significance (B.C.) (Group number 1 - Default model)</i>			
Variables	X	M2	M1	Variables	X	M2	M1	Variables	X	M2	M1
M2	.000	.000	.000	M2	.000	.000	.000	M2
M1	.000	.000	.000	M1	.000	.000	.000	M1
Y	.091	.000	.000	Y	.910	.000	.000	Y	.011

CONCLUSION

The results of the path analyses indicate a statistically significant positive direct effect of Islamic investment financing on each of the commercial banks' credit facilities through the mediation of the Islamic bank size (Islamic bank assets and investment deposits). In addition, with positive statistical significance, Islamic banks' asset and investment deposits directly affect commercial banks' credit facilities. Moreover, the mediation effect test indicates that the mediating variable (Islamic Bank Size) partially mediates the direct effect of Islamic investment financing on commercial banks' credit facilities. This result indicates the increasing interest of the administrative leaders in Islamic banks in focusing on the continuous growth in their size and achieving competitiveness in the Jordanian banking market. These results are consistent with the findings of previous studies. Furthermore, the success of the Islamic banking experience as a competitive model obliges many Arab and international commercial banks, particularly Jordanian banks, to adopt the Islamic banking methodology as part of their business model or complete transformation of their business methodology to Islamic banking.

RECOMMENDATIONS

1. The findings of this research can be applied to promoting competition in the Jordanian commercial and Islamic banking market through various Islamic banking services that sustain banking resources.
2. Jordanian commercial banks are recommended to take advantage of the cash surplus available to them to work on establishing Islamic branches or converting some units to work in Islamic banking.
3. Jordanian commercial banks should build a new business strategy in investment financing that is commensurate with the challenges of Islamic banks to preserve the gains they have achieved and hold for the future.

REFERENCES

- Abbas, F., Ali, S., Yousaf, I., & Wong, W. (2022). Economics of Risk-Taking, Risk-Based Capital, and Profitability: Empirical Evidence of Islamic Banks. *Asian Academic of Management Journal of Accounting & Finance*. 18 (1).
- Abdal-Majeed, A., Al-Smadi, A., Hamdan, F., & Almsafir, M. (2013). Islamic Banking Vs. Conventional Banking, During The Global Financial Crisis: Malaysia as A Case. *Journal of Islamic and Human Advanced Research*. 3 (1), 27-40.
- Abdullah, R. (2021). Study of the experience of the National Bank of Saudi Arabia in the field of transition from traditional banking to Islamic banking. *Research Journal*, 6 (1), 241-261.
- Abu Muhaimid, M. M. (2008). The Islamic Finance and Investment Instruments risks and its impact on capital Adequacy for the Islamic Banks According to Basel II, Unpublished thesis, College of Banking and Financial Sciences. *The Arab Academy for Banking and Financial Sciences*.
- Agler, R., & Boeck, P. (2017). On the Interpretation and Use of Mediation: Multiple Perspectives on Mediation Analysis. *Frontiers in Psychology*, 8, 1-11. DOI: 10.3389/fpsyg.2017.01984.
- Ahmed, R., & Maimon, M. (2018). Measuring the Efficiency of Islamic and Traditional Banks in the Arab World: A Case Study Sample of the Top 10 Banks for 2013, *Journal of Economic and Financial Research*. 5(2), 423-448.
- Al-amed, M. (2020). The impact of credit facilities on banks' profitability: applied study on Jordanian commercial banks for the period (2008-2018), *IUG Journal of Economics and Business Studies*. 28 (4), 174-190.
- Al-Fawwaz, T., & Al-Rawashdah, O. (2019). Credit Risk Management in Islamic and Conventional Banks. *Journal of Law and Human Sciences - Economic Studies*. 19 (2), 72-90.
- Al-Fawwaz, T., Daoud, H., & Arabiyat, Y. (2016). Credit Risk Management in Islamic and Conventional Banks in Jordan, *Jordan Journal of Business Administration*, 12 (2), 289-305.
- Al-Quraishi, M., & Abdul Karim, M. (2012). Islamic Banks and the impact of the Global Financial Crisis. *Iraqi Journal of Economic Sciences*. 10 (32), 43-62.
- Al-Rqeebat, G., & Al-Fawwaz, T. (2016). The Impact of Interest Rates on Size of the Credit Facilities and Deposits in Jordanian Commercial Banks (1985-2014). *Dirasat: Administrative Sciences*. 43 (2), 801-812.
- Amman Stock Exchange, (2021).
- Arbuckle, J. (2008). Amos 17.0 user's guide. SPSS Inc.
- Ariss, R.T. (2010). Competitive conditions in Islamic and conventional banking: A global perspective. *Review of Financial Economics*. 19 (3), 101–108.

- Azouz, A. (2018). The Use of Structural Equation Modeling in Social Sciences. *Journal of Humanities and Social Sciences*. 15 (1), 287-322.
- Badawi, M. (2016). Modeling by structural equations and their applications in marketing research. *Algerian Review of Economic Development*. 5, 21-36.
- Baron, R. M., & Kenny, D.A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research, Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*. 51 (6), 1173-1182. 0022-3514/86/\$00.75.
- Belkaid, K., & Abdelkader, Q. (2018). Estimating the efficiency of the leading Arab Islamic banks compared to their conventional counterparts in the face of contemporary challenges during the period (2005-2015). *International Journal of El-Maqrizi for Economic and Financial Studies*. 2 (1), 19-45.
- Bitar, M., Pukthuanthong, K., & Walker, T. (2019). Efficiency in Islamic vs. conventional banking: The role of capital and liquidity. *Global Finance Journal*. 19, DOI: 10.1016/j.gfj.2019.100487.
- Dang, C., Li, Z. F., & Yang, C. (2015), Measuring firm size in empirical corporate finance, *Journal of Banking and Finance*, Forthcoming pp:1-57. DOI: 10.2139/ssrn.2345506.
- Demming, C.L., Boztug, Y., & Jahn, S. (2017). Conducting Mediation Analysis in Marketing Research. *Marketing ZFP- journal of research and management*. 39 (3), 76–93. DOI: 10.15358/0344-1369-2017-3-76.
- El-Beltagy, M. (2005). A Proposed Model for Measuring Risk in Islamic Banking. *Journal of Economic Studies*. 13 (1), 1-32.
- Gujrati, D., Porter, D., & Gunasekar, S. (2012). *Basic Econometrics* (5thed.). New Delhi, ND. McGraw Hill education.
- Hair, F., Sarstedt, J., Hopkins, L., & Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) is an emerging tool in business research. *European Business Review*. 26 (2), 106-121.
- Hamiltona, R., Qasrawib, B. W., & Al-Jarrah, I. M. (2010). Cost and Profit Efficiency in the Jordan Banking Sector 1993-2006, A parametric Approach. *International Research Journal of Finance and Economics*. Issue 56, 96-110.
- Hayes, A.F., & Rockwood, N.J. (2020). Conditional Process Analysis: Concepts, Computation, and Advances in the Modeling of the Contingencies of Mechanisms. *American Behavioral Scientist*. 64 (1), 19–54. DOI: 10.1177/0002764219859633.
- Hellmann, T. F., Murdock, K. C., & Stiglitz, J. E. (2000). Liberalization, moral hazard in banking, and prudential regulation: Are capital requirements enough? *The American Economic Review*. 90 (1), 147-165. DOI: 10.1257/aer.90.1.147.

- Hilkevics, S., & Semakina, V. (2019). The classification and comparison of business ratios analysis methods. *Insights into Regional Development*. 1 (1), 48-57. doi.org/10.9770/ird.2019.1.1(4).
- Hox, J., & Bechger, T. (2014). An Introduction to Structural Equation Modeling. *Family Science Review*. 11, 354-373.
- Hoyle, R. H. (1995). The structural equation modeling approach: Basic concepts and fundamental issues. In *Structural equation modeling: Concepts, issues, and applications*. Thousand Oaks, CA: Sage Publications, 1-15.
- Humairoh, S., & Usman, H. (2016). Competition of Islamic Bank in Indonesia. *Journal of Distribution Science*. 14 (6), 39-44. doi.org/10.15722/jds.14.6.201606.39.
- Islamic Finance Development Indicator (IFDI). (2018). Islamic Finance Development (IFD) Report 2018.
- Isnurhadi, I., Adam, M., Sulastri, S., Andriana, I., & Muizzuddin, M. (2021). Bank Capital, Efficiency and Risk: Evidence from Islamic Banks. *Journal of Asian Finance, Economics and Business*. 8 (1), 841–850. DOI: 10.13106/jafeb.2021.vol8.no1.841.
- Karagoz, Y. (2016). SPSS ve AMOS 23 Uygulamalı İstatistiksel Analizler. Ankara: Nobel.
- Kumar, A., Channa, K., & Maharive, M. (2018). Work to Family Enrichment as Mediator between Organizational Support and Employees Performance. *Pakistan Journal of Commerce and Social Sciences*. 12 (2), 638-650.
- Latif, D., & Attia, T. (2020). Determinants of credit facilities in Iraqi commercial banks (2010-2019). *Journal of Financial, Accounting, and Administrative Studies*. 7 (1), 157-175.
- Lewis, M. (2007). Islamic Banking in Theory and Practice, *Monash Business Review*, 3 (1), 1-8.
- Mater, A. (2017). Evaluating the Performance of Islamic and Commercial Banks in Jordan: A Comparative study. *Jordan Journal of Economic Sciences*. 4 (1), 57-75.
- Mezo, P., & Short, M. (2012). Construct validity and confirmatory factor analysis of the Self-Control and Self-Management Scale. *Canadian Journal of Behavioral Science*. 44 (1), 1-8. <https://psycnet.apa.org/doi/10.1037/a0024414>
- Mohammed, W. (2012). Financial Intermediation in Islamic Banks: An Applied Research in the Iraqi Islamic Bank (for Investment and Development). *Al-Ustath Journal*, Issue 201, 833-847.
- Ocarina, F., & Mariam, A. (2021). Islamic Bank Efficiency in Indonesia: Stochastic Frontier Analysis. *Journal of Asian Finance, Economics, and Business*. 8(1), 751–758.
- Pratomo, W.A., & Ismail, A.G. (2006). Islamic bank performance and capital structure. *Munich Personal RePEc Archive Paper*. No. 6012. University Library of Munich, Germany.

- Preacher, K., & Hayes, A. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*. 36 (4), 717-731.
- Preacher, K., & Hayes, A. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*. 40 (3), 879-891. <https://doi.org/10.3758/BRM.40.3.879>.
- Rahim, R. (2016). Does Competition Foster Efficiency? Empirical Evidence from Malaysian Commercial Banks. *ASIAN ACADEMY of MANAGEMENT JOURNAL of ACCOUNTING & FINANCE*. 12 (1), 1–23.
- Ramlee, Sh., & Ghazali, N. (2006). Interest Rates Uncertainty, Immediacy Cost and The Role of Banks. *ASIAN ACADEMY of MANAGEMENT JOURNAL of ACCOUNTING and FINANCE*. 2 (2), 61–74.
- Risfandy, T., Tarazi, A., & Trinugroho, I. (2020). Competition in dual markets: Implications for banking system stability. *Global Finance Journal*. <https://doi.org/10.1016/j.gfj.2020.100579>.
- Sahraoui, A., & Bouselb, A. (2016). Constructivism and the processing of real standardization in the psychological and educational researches: the study of global construction model of relations of competencies of the administrative management in the educational institution. *Journal of Psychological and Educational Sciences*. 3 (2), 61-91.
- Samarin, M. (2011). A Perspective on Islamic Banks (Problems, Obstacles, Ambitions, and Future Vision). *International Conference on Islamic Banks*. Higher Institute of Islamic Studies. Al al-Bayt University. Jordan.
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the Fit of Structural Equation Models: Tests of Significance and Descriptive Goodness-of-Fit Measures. *Methods of Psychological Research*. 8 (2), 23-74.
- Talebnia, G., Valipour, H., & Shafiee, S. (2010). Empirical Study of the Relationship between Ownership Structure and Firm Performance: Some Evidence of Listed Companies in Tehran Stock Exchange. *Journal of Sustainable Development*. 3 (2). 264-270.
- Turnes, P., & Ernst, R. (2015). Strategies to Measure Direct and Indirect Effects in Multi-Mediator Models. *China-USA Business Review*. 14 (10), 504-514. DOI: 10.17265/1537-1514/2015.10.003
- Venardos, A. M. (2006). Islamic banking and finance in south-east Asia: its development and future (2nd edition) (Asia-Pacific Business) Paperback – October 30. Wspc.
- Zaho, X., Lyndh, J., & Chen, O. (2010) Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*. 37, 197-206.
- Zariyawati, M., Annuar, M., & Pui-San, N. (2016). Working Capital Management Determinants of Small and Large Firms in Malaysia. *International Journal of Economics & Management*. 10 (2), 365-377.