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Research Article

Determinant of the Financial Performance of Islamic Banks in Light of Financial Technology

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ABSTRACT

The objective of this study is to conduct a comprehensive analysis of the factors that influence Islamic banks' performance in Jordan in the context of banking technology. The inquiry employed a method called a quantitative-descriptive enquiry. Using information based on financial statements from Jordanian Islamic Bank, Safwa Islamic Bank, and International Arab Islamic Bank listed on the Amman Stock Exchange between 2014 and 2022, annually data (a panel data) was gathered from banking companies for this study. The analysis found that both internal as well as external variables had a substantial impact on the Islamic Bank's financial performance. Policy implications suggest the need collaborations with financial technology startups can provide access to innovative solutions and technologies and also, Banks should explore strategic partnerships to complement their offerings and accelerate their digital transformation journey.

Keywords: Financial Technology, Financial Performance, Islamic Banks, Jordan.

1. INTRODUCTION

The financial sector and worldwide economic expansion are impacted by the quickening pace of technological advancement. Recent global increases in financial technology investment have given rise to new concepts that challenge traditional financial methods while providing users with financial services (Arner et al., 2015; Kim et al., 2016; Al-Omoush et al. 2020; Yaseen & Qirem, 2018). In the financial services industry, the current stage is regarded as a crucial one for resource persons. Due to the enormous amount of technological advancements that have revolutionized how people do business, move money, and conduct every day operations, the field of financial technology has emerged as one amongst the most prominent areas that receives broad support from decision-makers. Given the increasing potential for breakthrough in technology within this vibrant market and the increasingly inventive and successful achievements and growth that are being observed, it is not surprising which hopes for capital for this market might exceed thousands of millions of dollars so as to produce more sophisticated services related to financial technology which will meet the growing needs of consumers (Alnsour, 2022). In order to reduce inequalities and poverty to ultimately achieve justice, one important first step is to obtain financial services. This may be one of the main justifications for monetary inclusion policies introduced in a number of countries (Agyemang-Badu, Agyei, & Kwaku Duah, 2018).

Today's corporate organizations are using financial performance more often than they did in the past, and adoption of this practice has grown with time (Samhan & Al-Khatib, 2015). In the financial and commercial spheres, Islamic banks are essential and significant. Additionally, strong financial results give stockholders a return on their investment. As a result, there is an increase in investment and economic expansion. However, subpar banking operations can result in crises and bank failure, which can harm economic expansion (Ongore, 2013). Internal elements, like management costs and other unique bank characteristics, along with external factors, like as macroeconomic variables like rates of interest, inflation, and foreign currency rates, among others, may have an impact on a bank's performance (Al-Tamimi, 2010; Aburime, 2005; Eljelly, 2013; Istan & Fahlevi, 2020; Al-Shaghdari, & Bardai, 2020; Ltaifa, Hany, & Saleh, 2021,Alnsour,2023). Individual bank features that have an impact on the performance of the bank are known as bank unique factors. In

essence, the internal decisions made by the board and management affect these aspects. Conversely, external factors refer to national elements that are outside the bank's control and have an impact upon the profitability along with overall performance of banks (Ongore, 2013).

Significant global revolutions in the banking industry have occurred over the past two decades. The procedures of banking activities and the competitive landscape within the banking sector have been significantly impacted by these changes. The framework and performance of banks were greatly influenced by a number of specific to the sector, financial, external, including particular aspects of banks (Rashid & Jabeen, 2016). The banking industry continues to play a crucial role in supplying money to businesses and consumers, although facing significant criticism in the wake of the current economic downturn (Gazi, 2022). Similar to this, commercial banks have benefited from investments through information technology (IT), which have raised their performance levels, increased their profits, while allowed them to serve clients more quickly by utilizing electronic networks, which also lower expenses (Gharaibeh, Al-Afeef, & Al-Okaily, 2022). Through managerial information systems along with decision assistance, IT has additionally assisted banks become more competitive in their markets. The financial design process relies heavily on the different IT applications that banks utilize (Hamdan, 2021). In order to be competitive, Jordanian banks also exchange information with other financial services firms and competing funds, which are made up of agents, investors, and users (customers). Jordanian banks are required to simplify payment procedures and give clients access to financial information. Accordingly, it is believed that the amount of money invested in IT, the number of customers, and the volume of financial service providers all considerably improve the performance of banks (Hamdan, 2021; Gharaibeh, Al-Afeef, & Al-Okaily, 2022).

Covid-19 is yet another external variable that affects financial performance. Bans caused business entities to suffer, and as a result, company growth went down and had an impact on the economy (Mustapa & Mohamed, 2021). Global banking has also been impacted by COVID-19 (Al-afeef et al, 2024; Al-Bimani, & Matriano, 2021).

Therefore, academic academics, bank executives, managers, and monetary market regulators have all expressed interest in looking into the empirical drivers of bank success. Legislators, consumers, and scholars have all taken an interest in Islamic banking sector. Numerous studies examining the factors that influence the financial performance of Islamic banks have been carried out in this regard, utilizing internal as well as external determinants (Haron, 1996; Mukhibad, & Khafid, 2018; Al-Tamimi, 2010; Aburime, 2005; Eljelly, 2013; Istan, & Fahlevi, 2020; Al-Shaghdari, & Bardai, 2020; Ltaifa, Hany, & Saleh, 2021). However, the total number of customers and the investment in technology were disregarded in these research as internal variables, and the amount of financial services firms and Covid-19 considered external factors. This constitutes a significant vacuum in the body of literature. To strengthen the existing literature, further research into internal and external factors influencing the financial performance of Islamic banks remains necessary.

This study makes multiple valuable contributions to the body of prior literature. First off, the majority of earlier research measures outside forces as macroeconomic variables (such as interest rates, exchange rates, and inflation rates) and inner variables as both immediate and future characteristics unique of particular banks, with a smaller number measuring it using financial ratios like ROA and ROE. Thus, through assessing external determinants like Covid-19 along with the quantity of financial services firms and internal variables like the quantity of consumers and technological investments via ROI or ROE to be indicators of the financial performance of Jordan Islamic Banks, the current investigation will add another aspect to the existing literature. To the best of the investigator's understanding, nonetheless, this study is regarded as one of the initial ones conducted in Jordan. along with developing nations with burgeoning economies resembling Jordan's can apply the study's findings in a general way.

The structure of this document is just as follows. The available research about internal as well as external variables influencing Islamic banks' financial performance is reviewed in Section 2. Section 3 presents the technique used in the study. The analysis and empirical findings are covered in Section 4, as well as the study is concluded in Section 5.

2. Theoretical Foundation

In view of financial technology, this part offers a number of ideas which explain the factors influencing Islamic banks' financial performance. The three concepts in question include investment management, resource-based theory,and the theory of technological acceptance. The first theory, known as technology acceptance, holds that there is a positive correlation among the apparent utilization of any novel material with its popularity of use (Alnsour, 2023). According to the hypothesis, a variety of factors influence the choice of how and when to use a technological instrument or equipment. These elements include a technology's seeming ease of application and inferred user interface (Al-Smadi et al, 2023; Mohammad et al, 2020). Bank client behavior can be clarified and imagined using the model of technology acceptance. According to Muhammad et al. (2020), the notion is based on and used to assess how well financial technology performs in demonstrating the financial success of businesses, especially Islamic banks. It is pertinent to our study because Islamic banks can legitimize the implementation of financial technology

products. In other words, it may be utilized to ascertain how consumer response to novel technology introductions will enhance Islamic banks' financial performance (Winarmo & Putra, 2020). In other words, the theory can relate user perceptions, a bank's financial performance, and the efficacy of financial technology operations.

According to the second resource-based theory, an organization gains a competitive advantage over rivals and other financial services firms when it invests in technology and has access to strategic resources, both tangible and intangible (Shaw et al., 2013). This advantage enables the organization to achieve higher financial performance. Strategic resources are a vital component of any business. To obtain a competitive edge over their competitors, firms should align their assets, knowledge, including skill—all of the key internal influencers of bank's financial performance—with their core capabilities (Hitt et al., 2016). Activities that companies can perform more effectively than their rivals are, in this instance, the fundamentals competencies. Therefore, companies may want to think about Financial Technology being a way to boost profitability and attain better financial performance. The methods of managing finances are the subject of the third school of thought is investment management. Managing money effectively with the aim of turning a profit later on is the aim of investing. Among the most beneficial aspects of effective money management is the application of technology. As per Farok and DanDago (2015); Kalbouneh et al, (2023) a business that investments in technology aims to increase its returns by double or triple by accelerating its operations. However, the same business might also make technological investments to safeguard its transactions and reduce expenses or theft.

Thus, the research's theoretical contributions involved examining both internal and outside variables that influence Islamic banks' financial performance within the view of financial technology utilizing Islamic banks within Jordan as assessed by ROI along with ROE, as shown in the model below:

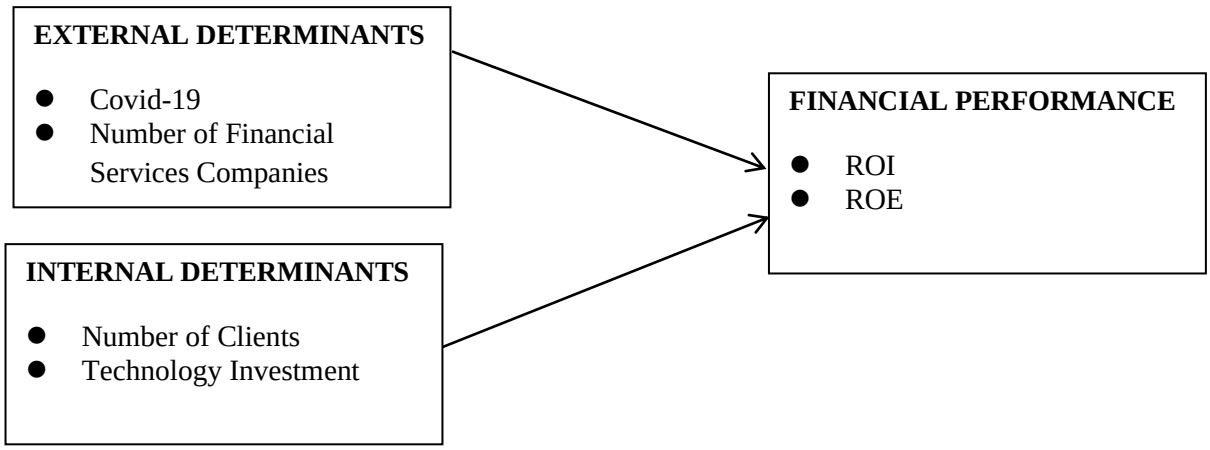

Figure 1: ***Conceptual Framework***

This framework explains how internal (the amount of consumers and technological investment) and outside (Covid-19 along with the amount of financial services providers) elements impact financial performance. The foundation of this framework is provided by the numerous studies which have shown the importance of external as well as internal variables when assessing (Haron, 1996; Mukhibad, & Khafid, 2018; Al-Tamimi, 2010; Aburime, 2005; Eljelly, 2013; Istan, & Fahlevi, 2020; Al-Shaghdari, & Bardai, 2020; Ltaifa, Hany, & Saleh, 2021). Though, like the research literature assessment section below demonstrates, the majority of these investigations measure intrinsic variables as bank-specific features and external variables such as macroeconomic variables (exchange rate, interest rate, , and the pace of inflation, amongst others).

3. Literature Review

Several empirical investigations have been conducted by which investigators have assessed the banking sector's performance utilizing a variety of statistical methods, including ratio analysis, regression analysis, including CAMEL model (Rashid, & Jabeen, 2016). Moreover, a great deal of research has been done in an effort to investigate the global empirical factors that influence bank performance (Alnsour, 2024; Rashid, & Jabeen, 2016). The research on the monetary, macroeconomic, specific to sector, and bank-specific factors influencing banks' financial performance is summarized under this section. Following a review of the research, the gaps pertinent to this investigation have been determined. Additionally, the shortcomings of the current empirical research have been brought to light. Numerous research studies have confirmed the importance of various internal and external elements in influencing the performance of banks Safrali & Gumus (2010), for instance, looked at performance of Azerbaijani banks between 2003 & 2008. They also assessed how macroeconomic variables and bank performance related to each other. They regressed bank performance upon GDP as well as inflation after first calculating their bank performance employing CAMEL

model approach. They discovered that while banks' performance is adversely affected by both GDP along with inflation, the impact of inflation remains statistically significant while the influence of GDP is negligible. Tamimi (2010) also looked at performance of conventional and Islamic banks within the United Arab Emirates between 1996 and 2008. He used return on equity (ROE) and return on assets (ROA) to gauge the performance of the bank. In addition to the GDP, he took into account a number of independent variables, including bank size, liquidity, concentration, financial development measure, cost, along with branch count. He discovered that the performance of conventional banks is significantly influenced by both liquidity along with concentration (ROA along with ROE), while operating costs and branch count are significantly impacted by Islamic banks. Hassan as well as Bashir (2003) looked at the 1994–2001 performance of Islamic banks. They discovered that the revenue and effectiveness of banks are significantly impacted by both external (GDP per capita, taxation, financial metrics, and real interest rate) and internal (liquidity, leverage, overhead cost, earnings, as well as fund management ratio) aspects. They came to the conclusion that when capital as well as loans to inventory ratios increased, banks would become more profitable. They offered proof that this conclusion remains valid even when the various factors—such as taxation, market dynamics, and economic conditions—are taken into account. Additionally, they discovered that during the studied period, taxes had an adverse impact upon bank performance, while macroeconomic variables had an encouraging impact. Choong, Thim, and Kyzy (2012) looked at a number of both internal and outside factors to determine how well Malaysian banks were performing. ROE and ROA were employed as performance metrics. They discovered that banks' performance is significantly impacted by credit risk Additionally, they came to the conclusion that while concentration & liquidity are essential criteria, their relationship towards the performance of banks over the studied period is statistically negligible. Zeitun (2012) investigated how the GCC region's Islamic and conventional banks performed in relation to macroeconomic indicators, bank-specific factors, and foreign ownership. He made use of yearly data from 2002 to 2009. He discovered that the performance of Islamic banks as determined by ROE is significantly positively impacted by bank size. Additionally, he discovered that the performance of both Islamic and conventional banks is significantly and negatively impacted by the cost to income ratio. Additionally, he determined that while foreign ownership had no significant effect on the performance of either Islamic or as conventional banks, there is a significant correlation between GDP, inflation and bank performance. Demirgu¨ç-Kunt and Huizinga (1998) conducted a study using a cross-country data set to look at the effects of external as well as internal factors on profitability along with interest rate margins over the period 1988–1995. They found that larger, more capitalized bicant relationship between capitalization and profitability. Additionally, theanks have higher profits and interest rate margins, as well as that there is a signify demonstrated bank reserves along with inflation have adverse impact upon profitability. Curak et al. (2012) utilized the generalized approach to the analysis of movement (GMM) process to analyze influence of determinants upon the profitability of Macedonian banks throughout the time frame of 2005 to 2010, finding that operating expense, solvency risk, GDP, concentration, and liquidity risk are significantly related to bank profitability while both bank size as well as credit risk had relatively small impacts. Alper and Anbar (2011), using data encompassing the duration 2002 to 2010, investigated the Turkish banks' performance by taking into account a number of internal and external variables. Using return on assets (ROA) and return on equity (ROE) as measures of performance, they contended that earning a profit is the most accurate way to assess bank's performance. Based on the estimation fixed effect model, found that non-interest ratio along with bank size possess substantial effects on profitability, as does the real interest rate, while CAR, deposits, inflation, GDP, liquidity, and interest margin have no significant effects on performance.

Srairi (2013) conducted a second study to examine the impact of ownership structure—namely, the kind of owners as well as ownership concentration—upon risk-taking tendencies of conventional along with Islamic banks. The empirical investigation has made use of annual data regarding banks that operated in ten MENA countries from 2005 to 2009. The outcomes of the research suggest ownership concentration along with risk are negatively correlated. The findings also show that different shareholder types have different risk views. The study conducted by Bilal, Saeed, Gull, and Akram (2013) examined the influence of macroeconomic measures and bank-specific variables upon bank profitability between 2007 and 2011. They employed the methods of correlation and regression analysis to examine the factors that influence profitability, using ROA and ROE as proxies for profitability. They discovered that while NPL as well as inflation had large and adverse impact on GDP, interest rate margin and bank size had significant and favorable effects. They also came to the conclusion that capital and ROA have a strong positive relationship. In a similar vein, Akhtar, Ali, and Sadaqat (2011) evaluated the performance of Pakistan's Islamic banks from 2006 to 2009. In addition to taking into account several factors such bank size, asset management, gearing ratio (total debt to equity), non-performing loan ratio, operating efficiency, and capital adequacy, they employed ROA and ROE as measures of performance. To examine how these variables affected performance measures, they employed multivariate regression analysis. They discovered that while bank size had a negative and negligible relationship with ROA, ROE, gearing ratio along with capital adequacy ratio had a considerable beneficial impact. An impact of macroeconomic factors (CPI, GDP, and interest rate) and bank variables (size, risk, and deposit ratio) upon profitability was studied by Riaz and Mehar (2013) between 2006 and 2010. They chose sample of thirty-two traditional banks and computed the profitability by means of ROA and ROE.

Investigators found that whereas bank size along with deposit ratio significantly affect only ROE, risk as well as interest rate significantly affect ROA and ROE.

A review of literature reveals that a number of investigations have looked at the factors that influence bank performance within both developed and emerging economies. These studies have used a variety of both internal and external factors as well as statistical techniques like ratio analysis, regression analysis, CAMEL testing, macroeconomic indices, and bank-specific variables. As substitute for banks' performance, ROA as well as ROE were used in the majority of studies (e.g. Mukhibad, & Khafid, 2018; Haron, 1996; Al-Tamimi, 2010; Aburime, 2005; Eljelly, 2013; Al-Shaghdari, & Bardai, 2020; Istan, & Fahlevi, 2020; Alper & Anbar, 2011; Ltaifa, Hany, & Saleh, 2021; Akhtar et al. 2011; Riaz & Mehar, 2013; Bilal et al., 2013). But nobody uses ROI and ROE together to assess financial success, especially when it comes to the Jordanian Islamic banks. Furthermore, the majority of these researches ignore the endogeneity & heteroskedasticity issues by using the straightforward typical least-squares estimate method. This study is very different from previous studies in that it first analyzes the financial performance of Islamic banks within Jordan via ROI and ROE proportions. It then looks at the factors that influence performance of banks both internally and externally, employing different constructs like Covid-19, number of financial services firms as a possible external determinant, and amount of customers along with technology investment as internal determinant.

Thus, in accordance with the previously studied literature, the following assumptions are made by this research:

H1: Covid-19 is a significant determinants of Jordanian Bank's performance.

H2: Number of financial services companies is a significant determinants of Jordanian Bank's performance.

H3: Number of clients is a significant determinants of Jordanian Bank's performance.

H4: Technology investment is a significant determinants of Jordanian Bank's performance.

4. Research Material and Method

The purpose of this inquiry, which is descriptive in nature and quantitative in nature, is to gather data on how internal as well as external variables affect bank performance. The study uses three Islamic banks across Jordan as its sample banks, while purposive sampling using random technique is employed. Among the examples were Safwa Islamic Banking, and Jordan Islamic Banking and Arab International Islamic Bank. Yearly data from financial institutions' statistics from the Stock Exchange of Amman's annual reports from 2014 and 2022 were collected and utilized in the study. In this paper, data panel regression is one form of data analysis method used. The previously mentioned technique is applied to panel data in order to evaluate and ascertain the impact of independent variable (IV) relative to dependent variable (DV). The current investigation uses financial metrics like ROE , ROI for assessing financial performance of Islamic banking with regard to DV (Anindyastri, Lestari & Sholahussin, 2022;Phillips, 2023; Setiawan, & Rosa, 2023; Ichsani, & Suhardi, 2015; Siska, 2022; Ilhami & Thamrin, 2021).

Return on Investment (ROI)

A performance metric called ROI is employed for assessing the effectiveness of several distinct investments or assess how profitable or efficient an investment was. The goal of ROI aims to quantify the sum of profit received upon an investment compared to its cost (Ichsani & Suhardi, 2015; Phillips, 2023; Setiawan & Rosa, 2023). ROI can be :computed using the formula below

ROI= Net Return on Investment/Cost of Investment X X100%

Return on Equity (ROE)

ROE is another financial metric that may be used to assess a company's profitability in relation to the total amount of capital that investors own (Oktavia & Genjar, 2019). A business that has a high return on equity will likely to succeed. A firm is more lucrative the higher its profit percentage on equity (Gwatiringa, 2020). The formula for calculating ROE is as follows:

ROE = Net Income after Tax/Total Equity X 100%

Covid-19, number of financial services firms as exogenous factors, the percentage of customers, and technological investment constitute the variables that are independent for the purpose of this investigation.

5. Results and Discussion

Descriptive Results

Table 1 show the results of descriptive statistics test for all study variables (Covid-19 (COV), Number of Financial (NOF), Services Companies (SC), Number of Clients (NOC), Technology Investment (TI), ROI and ROE) for the (2014-2022) period. The findings indicate that the minimum recorded value for Technology Investment stands at 3.1, and the maximum is recorded 10.92 Moreover, the highest Std. Dev recorded by ROI and the lowest value recorded by Technology Investment (see table 1).

Table 1: Descriptive Results

Factors	Stander Devotion.	Mean	Minimum.	Maximum.
Covid-19	14.11	14.70	4.06	86.03
Number of Financial	22.6	78.1	21.5	111.1
Services Companies	43.2	29.3	16.8	101.3
Number of Clients	21.3	73.6	18.6	109.2
Technology Investment	13.34	26.21	3.11	10.92
ROI	45.8	30.47	17. 8	120.5
ROE	41.9	29.34	16.3	141.3

Source: Output of the Eviews 7.2 econometric software

Furthermore, Table 1 shows the results of the mean for the COV, Number of Financial, Services Companies, Number of Clients, Technology Investment, ROI and ROE are 14.7, 78.1, 29.3, 73.6, 26.21, 30.47 and 29.34 respectively. Next table (2) shows the results of stationarity (panel unit root tests) using LLC and IPS panel unit root tests. However, the results confirmed that all the selection variables are integrated of order I(1).

Table (2): Results of stationary

Variables	LLC		IPS		Decision
	I(0)	I(1)	I(0)	I(1)	
Covid-19	6.45a	16.78a	3.44a	5.13a	I(1)
Number of Financial	5.12b	14.56a	2.96b	4.43a	I(1)
Services Companies	5.35b	14.62a	2.89b	4.62a	I(1)
Number of Clients	5.57b	13.89a	3.11b	4.32a	I(1)
Technology Investment	6.12a	16.51a	3.97a	7.60a	I(1)
ROI	7.31a	18.47a	4.12a	8.61a	I(1)
ROE	7.56a	18.49a	4.22a	8.23a	I(1)

Notes: (1) a,b denotes statistically significance at 1%, 5% levels. (2) LLC is test by Levin, Lin, and Chu (2002); IPS is Im, Pesaran, and Shin (2003) test; (2) VIF denotes variance inflation factor test. The Ho of multicollinearity is rejected if the values of VIF test > 3.

Also, the variance inflation factor (VIF) is used to test the problems of multicollinearity (Bahraini & Qaffas, 2019) and confirmed that no possibility of negative effects of multicollinearity.

However, in order to gain acceptance among panel data models (Pooled Ordinary Least Square (OLS) or Model Generalized Least Square Models) the Breusch and Pagan Lagrange Multiplier Test is used ((see table 3).

Table (3): Results of Breusch and Pagan Lagrange Multiplier Test

Chi-Square Statistics	**Probability**
4.47295a	0.0012
Sample: 2014 – 2022	

Notes: (1) a denotes statistically significance at 1%, levels.
Source: Output of the Eviews 7.2 econometric software

The result of Breusch and Pagan Lagrange Multiplier Test shows that the value of Chi-Square Statistics is 4.47295 at 1% significance level, which mean that the suitable model is Generalized Least Square Models (Fixed Effect and Random Effect Model) (Shkodra et al, (2021); Hiestand, 2005; Gujarati and porter, 2009). However, to determinant the suitable model among Fixed Effect and Random Effect the Hausman Test (1978) is used as see in table (4).

Table (4): Results of Hausman Test

Chi-Square Statistics	**Probability**
6.68275a	0.0022
ROI= Covid-19, Number of Financial, Services Companies, Number of Clients, Technology Investment	

Chi-Square Statistics	**Probability**
7.42219a	0.0061
ROE= Covid-19, Number of Financial, Services Companies, Number of Clients, Technology Investment	
Sample: 2014 – 2022	

Notes: (1) a denotes statistically significance at 1%, levels.

Source: Output of the Eviews 7.2 econometric software

The result of Hausman Test for the first model (ROI) shows that the value of Chi-Square Statistics is 6.68275 at 1% significance level, which mean that the suitable model is Fixed Effect model and also, the result of Hausman Test for the second model (ROE) shows that the value of Chi-Square Statistics is 7.42219 at 1% significance level, which mean that the suitable model is Fixed Effect model (Shkodra et al, (2021); Hiestand, 2005; Gujarati and porter, 2009).

Fixed effect model test

The fixed effect model parameters test in Table (5) was used to test the study hypotheses and identify the relationship among the study variables for the first model (ROI).

Table (5): Results of fixed effect model (ROI)

Model (ROI)	Coefficient	Probability
Covid-19	0.00014b	0.021
Number of Financial	0.06165b	0.022
Services Companies	0.0707b	0.037
Number of Clients	0.0065b	0.021
Technology Investment	0.0029b	0.045
C	8.5674a	0.001

Notes: (1) a and b denotes statistically significance at 1% and 5%, levels.
Source: Output of the Eviews 7.2 econometric software

Table (5), confirmed that there is a positive relationship between financial technology indicators, represented by (Covid-19, Number of Financial, Services Companies, Number of Clients, Technology Investment) and Financial Performance (ROI) for all Islamic banks in Jordan. Which mean that (Covid-19, Number of Financial, Services Companies, Number of Clients, Technology Investment) are a significant determinants of Jordanian Bank's performance. This result can be justified by the fact that the need for banks to activate these facilities which contributes to increasing their administrative efficiency and effectiveness, in a way that guarantees them the achievement of their goals, strategies, and programs within the framework of the financial and banking environment. Thus, these results are confirmed by (Baker et al, 2023; Song et al, 2023; Abbas, and Rozina 2021; DanDago 2015).
However, financial technology adoption can streamline banking operations by means of automating and digitizing ordinary procedures, along with loan approvals, consumer onboarding, and charge processing and also, reducing guide work and enhancing efficiency, banks can lower operational expenses and growth profitability (Cho & Chen, 2021; Gomber et al, 2017).

Furthermore, the fixed effect model parameters test in Table (6) shows the results of the study hypotheses and identifies the relationship among the study variables for the second model (ROE).

Table (6): Results of fixed effect model (ROE)

Model (ROE)	Coefficient	Probability
Covid-19	0.01314b	0.040
Number of Financial	2.07264b	0.031
Services Companies	2.0591b	0.049
Number of Clients	1.0191b	0.032
Technology Investment	1.0204b	0.058
C	7.3821a	0.004

Notes: (1) a and b denotes statistically significance at 1% and 5%, levels.
Source: Output of the Eviews 7.2 econometric software

Table (6), confirmed that there is a positive relationship between financial technology indicators, represented by (Covid-19, Number of Financial, Services Companies, Number of Clients, Technology Investment) and Financial Performance (ROE) for all Islamic banks in Jordan. Which mean that (Covid-19, Number of Financial, Services Companies, Number of Clients, Technology Investment) are a significant determinants of Jordanian Bank's performance. This result can be justified by the fact that the adoption of financial technology solutions in the banking sector can considerably impact banks' financial performance by means of improving efficiency, enhancing customer experience, diversifying sales streams, and strengthening risk management practices. Banks that efficiently integrate financial technology into their operations and techniques can gain a competitive benefit and achieve sustained overall performance (Alnsour, 2023; Al-Ababneh et al, 2023; Cho & Chen, 2021; Gomber et al, 2017).

Financial technology affords banks with the capability to harness statistics and analytics to make informed decisions about consumer conduct, marketplace traits, and threat management. Also, Data-pushed strategies can result in higher-focused services and products, improving financial performance (Raghupathi and Raghupathi, 2014).

Conclusion

The objective of this study is to conduct a comprehensive analysis of the factors that influence Islamic banks' performance in Jordan in the context of banking technology. The inquiry employed a method called a quantitative-descriptive enquiry. Using information based on financial statements from Jordanian Islamic Bank, Safwa Islamic Bank, and International Arab Islamic Bank listed on the Amman Stock Exchange between 2014 and 2022, annually data (a panel data) was gathered from banking companies for this study. The analysis found that both internal as well as external variables had a substantial impact on the Islamic Bank's financial performance.

In conclusion, the relationship between financial technology (fintech) indicators and banks' financial performance is both significant and multifaceted. As banks continue to adopt and integrate financial technology solutions into their operations, they can harness the power of data analytics, automation, and innovative technologies to improve efficiency, enhance customer experience, diversify revenue streams, and strengthen risk management practices. Based on the determined relationship among financial generation (fintech) indicators and banks performance, Policy implications suggest the need collaborations with fintech startups can provide access to innovative solutions and technologies and also, Banks should explore strategic partnerships to complement their offerings and accelerate their digital transformation journey. Future research directions may conducting long-term studies to observe how the relationship between fintech adoption and financial performance evolves over time. This can provide insights into the sustainability of fintech-driven improvements and identify potential long-term risks.

References

1. Abusaimeh, H. (2020). Distributed denial of service attacks in cloud computing. International Journal of Advanced Computer Science and Applications, 11(6).
2. Abusaimeh, H., Shkoukani, M., & Alshrouf, F. (2014). Balancing the network clusters for the lifetime enhancement in dense wireless sensor networks. Arabian Journal for Science and Engineering, 39, 3771-3779.
3. Abusaimeh, H., & Alshareef, Y. (2021). Detecting the phishing website with the highest accuracy. TEM Journal, 10(2), 947.
4. Abusaimeh, H. (2020). Virtual machine escape in cloud computing services. International Journal of Advanced Computer Science and Applications, 11(7).
5. Mahafzah, A. H., & Abusaimeh, H. (2018). Optimizing power-based indoor tracking system for wireless sensor networks using ZigBee. International Journal of Advanced Computer Science and Applications, 9(12).
6. Abusaimeh, H. (2022). Computation Offloading for Mobile Cloud Computing Frameworks and Techniques. TEM Journal, 11(3), 1042-1046.
7. Abusaimeh, H. (2020). Enhance the security and prevent vampire attack on wireless sensor networks using energy and broadcasts threshold values. International Journal of Advanced Computer Science and Applications, 11(3).
8. Abusaimeh, H., Sharabati, A., & Asha, S. (2023). Using cloud computing services to enhance competitive advantage of commercial organizations. International Journal of Data and Network Science, 7(3), 1349-1360.
9. ABUSAIMEH, H., & ISAID, O. (2017). HYBRID DATA DEDUPLICATION TECHNIQUE IN CLOUD COMPUTING FOR CLOUD STORAGE. Journal of Theoretical & Applied Information Technology, 95(24).
10. Ahmad, A. Y. B., Kumari, D. K., Shukla, A., Deepak, A., Chandnani, M., Pundir, S., & Shrivastava, A. (2024). Framework for Cloud Based Document Management System with Institutional Schema of Database. International Journal of Intelligent Systems and Applications in Engineering, 12(3s), 672-678.
11. Ahmad, A. Y. B., Hannoon, A., Al-Daoud, K. I., Abu-Alsondos, I. A., & Al-Qaisieh, M. S. (2023). Assessment of Cloud Based Accounting Technology Adoption and Business Performance. Kurdish Studies, 11(3).
12. Ahmad, A. Y. B., Kumari, D. K., Shukla, A., Deepak, A., Chandnani, M., Pundir, S., & Shrivastava, A. (2024). Framework for Cloud Based Document Management System with Institutional Schema of Database. International Journal of Intelligent Systems and Applications in Engineering, 12(3s), 672-678.
13. Ahmad, A. Y. B., Tiwari, A., Nayeem, M. A., Biswal, B. K., Satapathy, D. P., Kulshreshtha, K., & Bordoloi, D. (2024). Artificial Intelligence Perspective Framework of the Smart Finance and Accounting

Management Model. International Journal of Intelligent Systems and Applications in Engineering, 12(4s), 586-594.
14. Ahmad, A., Abusaimeh, H., Rababah, A., Alqsass, M., Al-Olima, N., & Hamdan, M. (2024). Assessment of effects in advances of accounting technologies on quality financial reports in Jordanian public sector. Uncertain Supply Chain Management, 12(1), 133-142.
15. Ahmad, A. (2024). Ethical implications of artificial intelligence in accounting: A framework for responsible ai adoption in multinational corporations in Jordan. International Journal of Data and Network Science, 8(1), 401-414.
16. Ahmad Y. A. Bani Ahmad, "Firm Determinants that Influences Implementation of Accounting Technologies in Business Organizations," WSEAS Transactions on Business and Economics, vol. 21, pp. 1-11, 2024
17. Ahmad, A. Y. B., William, P., Uike, D., Murgai, A., Bajaj, K. K., Deepak, A., & Shrivastava, A. (2024). Framework for Sustainable Energy Management using Smart Grid Panels Integrated with Machine Learning and IOT based Approach. International Journal of Intelligent Systems and Applications in Engineering, 12(2s), 581-590.
18. Ahmad, A. B., Atta, A. A. B., Asma'a Al-Amarneh, M. S., & Dahbour, S. A. (2023). Fund Family Selectivity Skills and Market Timing Ability: Comparison Study
19. Ahmad, A. Y. Bani ahmad , (2019). Empirical Analysis on Accounting Information System Usage in Banking Sector in Jordan. Academy of Accounting and Financial Studies Journal, 23(5), 1-9.
20. Ahmad, A. Y. B., Gongada, T. N., Shrivastava, G., Gabbi, R. S., Islam, S., & Nagaraju, K. (2023). E-Commerce Trend Analysis and Management for Industry 5.0 using User Data Analysis. International Journal of Intelligent Systems and Applications in Engineering, 11(11s), 135-150.
21. Alhawamdeh, H., Al-Saad, S. A., Almasarweh, M. S., Al-Hamad, A. A.-S. A., Bani Ahmad, A. Y. A. B., & Ayasrah, F. T. M. (2023). The Role of Energy Management Practices in Sustainable Tourism Development: A Case Study of Jerash, Jordan. International Journal of Energy Economics and Policy, 13(6), 321–333. https://doi.org/10.32479/ijeep.14724
22. Allahham, M., & Ahmad, A. (2024). AI-induced anxiety in the assessment of factors influencing the adoption of mobile payment services in supply chain firms: A mental accounting perspective. International Journal of Data and Network Science, 8(1), 505-514.
23. Y. A. B. Ahmad, S. S. Kumari, M. S, S. K. Guha, A. Gehlot and B. Pant, "Blockchain Implementation in Financial Sector and Cyber Security System," 2023 International Conference on Artificial Intelligence and Smart Communication (AISC), Greater Noida, India, 2023, pp. 586-590, https://doi.org/10.1109/AISC56616.2023.10085045
24. Ahmad, A. Y. B., Atta, A. A. B., Shehadeh, M. A. H. A., Baniata, H. M. A., & Hani, L. Y. B. (2023). Fund family performance: Evidence from emerging countries. WSEAS Trans. Bus. Econ, 20, 951-964.
25. Bani Atta, A. A., Ali Mustafa, J., Al-Qudah, S. S., Massad, E., & Ahmad, A. B. (2023). The effect of macroprudential regulation on banks' profitability during financial crises [Specialissue]. Corporate Governance and Organizational Behavior Review, 7(2), 245-258.
26. Cheng, Congbin, Sayed Fayaz Ahmad, Muhammad Irshad, Ghadeer Alsanie, Yasser Khan, Ahmad Y. A. Bani Ahmad (Ayassrah), and Abdu Rahman Aleemi. 2023. "Impact of Green Process Innovation and Productivity on Sustainability: The Moderating Role of Environmental Awareness" Sustainability 15, no. 17: 12945. https://doi.org/10.3390/su151712945
27. Atta, A., Baniata, H., Othman, O., Ali, B., Abughaush, S., Aljundi, N., & Ahmad, A. (2024). The impact of computer assisted auditing techniques in the audit process: an assessment of performance and effort expectancy. International Journal of Data and Network Science, 8(2), 977-988.
28. ALLAHHAM, M., SHARABATI, A. A. A., HATAMLAH, H., AHMAD, A. Y. B., SABRA, S., & DAOUD, M. K. Big Data Analytics and AI for Green Supply Chain Integration and Sustainability in Hospitals.Magboul, I., Jebreel, M., Dweiri, M., Qabajeh, M., Al-Shorafa, A., & Ahmad, A. (2024). Antecedents and outcomes of green information technology Adoption: Insights from an oil industry. International Journal of Data and Network Science, 8(2), 921-934.
29. Daoud, M. K., Al-Qeed, M., Ahmad, A. Y. B., & Al-Gasawneh, J. A. (2023). Mobile Marketing: Exploring the Efficacy of User-Centric Strategies for Enhanced Consumer Engagement and Conversion Rates. International Journal of Membrane Science and Technology, 10(2), 1252-1262.
30. Daoud, M., Taha, S., Al-Qeed, M., Alsafadi, Y., Ahmad, A., & Allahham, M. (2024). EcoConnect: Guiding environmental awareness via digital marketing approaches. International Journal of Data and Network Science, 8(1), 235-242.
31. Fraihat, B. A. M., Ahmad, A. Y. B., Alaa, A. A., Alhawamdeh, A. M., Soumadi, M. M., Aln'emi, E. A. S., & Alkhawaldeh, B. Y. S. (2023). Evaluating Technology Improvement in Sustainable Development Goals by Analysing Financial Development and Energy Consumption in Jordan. International Journal of Energy Economics and Policy, 13(4), 348
32. Almestarihi, R., Ahmad, A., Frangieh, R., Abu-AlSondos, I., Nser, K., & Ziani, A. (2024). Measuring the ROI of paid advertising campaigns in digital marketing and its effect on business profitability. Uncertain Supply Chain Management, 12(2), 1275-1284.

33. Al-Dweiri, M., Ramadan, B., Rawshdeh, A., Nassoura, A., Al-Hamad, A., & Ahmad, A. (2024). The mediating role of lean operations on the relationship between supply chain integration and operational performance. Uncertain Supply Chain Management, 12(2), 1163-1174.
34. Lin, C., Ahmad, S. F., Ayassrah, A. Y. B. A., Irshad, M., Telba, A. A., Awwad, E. M., & Majid, M. I. (2023). Green production and green technology for sustainability: The mediating role of waste reduction and energy use. Heliyon, e22496.
35. K. Daoud, D. . Alqudah, M. . Al-Qeed, B. A. . Al Qaied, and A. Y. A. B. . Ahmad, "The Relationship Between Mobile Marketing and Customer Perceptions in Jordanian Commercial Banks: The Electronic Quality as A Mediator Variable", ijmst, vol. 10, no. 2, pp. 1360-1371, Jun. 2023
36. Mohammad Jebreel, Mohammad Alnaimat, Amjad Al-Shorafa, Majed Qabajeh, Mohammad Alqsass, & Ahmad Bani Ahmad. (2023). The Impact of Activity Ratios on Change in Earnings (Case Study:Based on Jordanian Food Companies). Kurdish Studies, 11(2), 4551–4560. Retrieved from https://kurdishstudies.net/menu-script/index.php/KS/article/view/1044
37. Mohammad Alqsass, Munir Al-Hakim, Qais Al Kilani, Lina Warrad, Majed Qabajeh, Ahmad Y. A.Bani Ahmad, & Adnan qubbaja. (2023). The Impact of Operating Cash Flow on Earnings Per Share (Case Study Based on Jordanian Banks). Kurdish Studies, 11(2), 2718–2729. Retrieved from https://kurdishstudies.net/menu-script/index.php/KS/article/view/831
38. Mohammad Alqsass, Munir Al-Haki, Mohammad Dweiri, Majed Qabajeh, Dmaithan almajali, Ahmad Bani Ahmad, & Adnan Qubbaja. (2023). The Impact of Current Ratio on Net Profit Margin (Case Study: Based on Jordanian Banks). Kurdish Studies, 11(2), 2894–2903. Retrieved from https://kurdishstudies.net/menu-script/index.php/KS/article/view/834
39. Mustafa, J. A., ATTA, A. A. B., AHMAD, A. Y. B., SHEHADEH, M., & Agustina, R. (2023). Spillover Effect in Islamic and Conventional Fund Family: Evidence from Emerging Countries. WSEAS Transactions on Business and Economics, 20, 1042-1058.
40. Mohsin, H. J., Hani, L. Y. B., Atta, A. A. B., Al-Alawnh, N. A. K., Ahmad, A. B., & Samara, H. H. (2023). THE IMPACT OF DIGITAL FINANCIAL TECHNOLOGIES ON THE DEVELOPMENT OF ENTREPRENEURSHIP: EVIDENCE FROM COMMERCIAL BANKS IN THE EMERGING MARKETS.
41. Ni, L., Ahmad, S. F., Alshammari, T. O., Liang, H., Alsanie, G., Irshad, M., ... & Ayassrah, A. Y. B. A. (2023). The role of environmental regulation and green human capital towards sustainable development: The mediating role of green innovation and industry upgradation. Journal of Cleaner Production, 138497.
42. Peng, Yixuan, Sayed Fayaz Ahmad, Ahmad Y. A. Bani Ahmad, Mustafa S. Al Shaikh, Mohammad Khalaf Daoud, and Fuad Mohammed Hussein Alhamdi. 2023. "Riding the Waves of Artificial Intelligence in Advancing Accounting and Its Implications for Sustainable Development Goals" Sustainability 15, no. 19: 14165. https://doi.org/10.3390/su151914165
43. Peiran Liang, Yulu Guo, Sohaib Tahir Chauhdary, Manoj Kumar Agrawal, Sayed Fayaz Ahmad, Ahmad Yahiya ,Ahmad Bani Ahmad, Ahmad A. Ifseisi, Tiancheng Ji,2024"Sustainable development and multi-aspect analysis of a novel polygeneration system using biogas upgrading and LNG regasification processes, producing power, ,heating, fresh water and liquid CO2",Process Safety and Environmental Protection
44. Peiran Liang, Yulu Guo, Tirumala Uday Kumar Nutakki, Manoj Kumar Agrawal, Taseer Muhammad, Sayed ,Fayaz Ahmad, Ahmad Yahiya Ahmad Bani Ahmad, Muxing Qin 2024. "Comprehensive assessment and sustainability improvement of a natural gas power plant utilizing an environmentally friendly combined cooling heating and power-desalination arrangement",Journal of Cleaner Production,Volume 436,,,140387

A. Y. A. Bani Ahmad, Y. M. A. Tarshany, F. T. M. Ayasrah, F. S. Mohamad, S. I. A. Saany and B. Pandey, "The Role of Cybersecurity in E-Commerce to Achieve the Maqasid of Money," 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, pp. 1-8, doi: 10.1109/CSET58993.2023.10346972.

45. Rumman, G., Alkhazali, A., Barnat, S., Alzoubi, S., AlZagheer, H., Dalbouh, M., ... & Darawsheh, S. (2024). The contemporary management accounting practices adoption in the public industry: Evidence from Jordan. International Journal of Data and Network Science, 8(2), 1237-1246.
46. Singh, R., Gupta, N. R., & Ahmad, A. Y. (2024). An Empirical Study on Challenges of Working From Home During COVID-19 on Work-Life Domains in the Education Sector in Bengaluru. In S. Singh, S. Rajest, S. Hadoussa, A. Obaid, & R. Regin (Eds.), Data-Driven Intelligent Business Sustainability (pp. 111-121). IGI Global. https://doi.org/10.4018/979-8-3693-0049-7.ch008
47. William, P., Ahmad, A. Y. B., Deepak, A., Gupta, R., Bajaj, K. K., & Deshmukh, R. (2024). Sustainable Implementation of Artificial Intelligence Based Decision Support System for Irrigation Projects in the Development of Rural Settlements. International Journal of Intelligent Systems and Applications in Engineering, 12(3s), 48-56.
48. Wang, C., Ahmad, S. F., Ayassrah, A. Y. B. A., Awwad, E. M., Irshad, M., Ali, Y. A., ... & Han, H. (2023). An empirical evaluation of technology acceptance model for Artificial Intelligence in E-commerce. Heliyon, 9(8).

49. Yahiya Ahmad Bani Ahmad (Ayassrah), Ahmad; Ahmad Mahmoud Bani Atta, Anas; Ali Alawawdeh, Hanan; Abdallah Aljundi, Nawaf; Morshed, Amer; and Amin Dahbour, Saleh (2023) "The Effect of System Quality and User Quality of Information Technology on Internal Audit Effectiveness in Jordan, And the Moderating Effect of Management Support," Applied Mathematics & Information Sciences: Vol. 17: Iss. 5, Article 12.
DOI: https://dx.doi.org/10.18576/amis/170512
50. Zhan, Y., Ahmad, S. F., Irshad, M., Al-Razgan, M., Awwad, E. M., Ali, Y. A., & Ayassrah, A. Y. B. A. (2024). Investigating the role of Cybersecurity's perceived threats in the adoption of health information systems. Heliyon, 10(1).
51. Alhawamdeh, H. M., & Alsmairat, M. A. (2019). Strategic decision making and organization performance: A literature review. International review of management and marketing, 9(4), 95.
52. Alhawamdeh, H., Al-Saad, S. A., Almasarweh, M. S., Al-Hamad, A. A. S., Ahmad, A. Y., & Ayasrah, F. T. M. (2023). The role of energy management practices in sustainable tourism development: a case study of Jerash, Jordan. International Journal of Energy Economics and Policy, 13(6), 321-333.
53. Alkhawaldeh, B., Alhawamdeh, H., Al-Afeef, M., Al-Smadi, A., Almarshad, M., Fraihat, B., ... & Alaa, A. (2023). The effect of financial technology on financial performance in Jordanian SMEs: The role of financial satisfaction. Uncertain Supply Chain Management, 11(3), 1019-1030.
54. Ali, O., Al-Duleemi, K., Al-Afeef, D. J., & Al-hawamdah, D. H. (2019). The Impact of the Decisions of the COBIT 5 Committee on the Effectiveness of the Internal Control Systems in the Jordanian Industrial Joint Stock Companies. The Journal of Social Sciences Research, 5(11), 1587-1599.
55. Ali, O. A. M., Matarneh, A. J., Almalkawi, A., & Mohamed, H. (2020). The impact of cyber governance in reducing the risk of cloud accounting in Jordanian commercial banks-from the perspective of Jordanian auditing firms. Modern Applied Science, 14(3), 75-89.
56. Al-Hawamdeh, H. M. (2020). The Intermediate Role of Organizational Flexibility in the Impact of Using Information Technology on the Efficiency of the Application of IT Governance in Jordanian Industrial Companies. Modern Applied Science, 14(7).
57. Fraihat, B. A. M., Alhawamdeh, H., Younis, B., Alkhawaldeh, A. M. A., & Al Shaban, A. (2023). The Effect of Organizational Structure on Employee Creativity: The Moderating Role of Communication Flow: A Survey Study.
58. Al-gharaibeh, S. M., Al-Zoubi, D. M., Hijazi, H. A., Al-Sakarneh, A., Alhawamdeh, H. M., Abdel, M., & Al-Afeef, M. (2021). The Relationship Between E-learning During Coronavirus Pandemic and Job Burnout Alkhawaldeh, B. Y. S., Alhawamdeh, H., Almarshad, M., Fraihat, B. A. M., Abu-Alhija, S. M. M., Alhawamdeh, A. M., & Ismaeel, B. (2023). The effect of macroeconomic policy uncertainty on environmental quality in Jordan: Evidence from the novel dynamic simulations approach. Jordan Journal of Economic Sciences, 10(2), 116-131.among Faculty Members in Public and Private Universities in Jordan
59. SALIH, A. A., & NASEREDDIN, A. Y. The Role of Strategic Awareness in Developing the Practice of Strategic Foresight in Business Organizations-Epistemological Perspective.
60. Nasereddin, A. (2023). Exploring the effect of corporate environmental management responsibility on firm performance. Uncertain Supply Chain Management, 11(2), 625-636.
61. Salih, A., Mousa, Z., & Nasereddin, A. (2023). The impact of career capital on sustainable competitive advantage: The mediating role of human resource management capabilities. Uncertain Supply Chain Management, 11(2), 489-502.
62. Raza, A., Al Nasar, M. R., Hanandeh, E. S., Zitar, R. A., Nasereddin, A. Y., & Abualigah, L. (2023). A Novel Methodology for Human Kinematics Motion Detection Based on Smartphones Sensor Data Using Artificial Intelligence. Technologies, 11(2), 55.
63. Nasereddin, A. Y. (2023). Impact of the Blue Ocean Strategy Dimensions in Achieving Competitive Advantage from the Perspective of Faculty Members.
64. Nasereddin, A. Y. (2023). A Business Analytics Approach to Strategic Management using Uncovering Corporate Challenges through Topic Modeling.
65. Yacoub Nasereddin, Ahmad (2023) "The Impact of Lean Thinking on Strategic Planning in Industrial Companies in Jordan from the Upper and Middle Management: A Perspective Study," Information Sciences Letters: Vol. 12 : Iss. 6 , PP -
66. Al-Afeef, M., Fraihat, B., Alhawamdeh, H., Hijazi, H., AL-Afeef, M., Nawasr, M., & Rabi, A. (2023). Factors affecting middle eastern countries' intention to use financial technology. International Journal of Data and Network Science, 7(3), 1179-1192.
67. Al-Waely, D., Fraihat, B. A. M., Al Hawamdeh, H., Al-Taee, H., & Al-Kadhimi, A. M. M. N. (2021). Competitive Intelligence Dimensions as a Tool for Reducing the Business Environment Gaps: An Empirical Study on the Travel Agencies in Jordan. Journal of Hunan University Natural Sciences, 48(11).
68. Abbas, Abrar, and Rozina Shaheen. (2021). Role of Financial Technology in the Banking Sector of Saudi Arabia. Palarch's Journal of Archaeology of Egypt/Egyptology 18: 1190–98.

69. Al-Smadi, A. W., Al-Smadi, R. W., Al-Afeef, M. A., Al-Afeef, M. A. M., & Kalbouneh, N. Y. (2023). Consequences to the stock market caused by currency fluctuations: Jordanian evidence. International Journal of Professional Business Review, 8(4), e01275-e01275.
70. Aburime, U. (2005), "Determinants of Bank Profitability: Company-level Evidence from Nigeria", Nigeria: University of Nigeria, Enugu Campus.
71. Alnsour, I. (2023). The effect of financial technology on Islamic banks performance in Jordan: Panel data analysis. International Journal of Data and Network Science, 7(4), 1515-1524.
72. Al-afeef, M. A., Al-Afeef, M. A. M., Al-Smadi, R. W., & Al-Smadi, A. W. (2024). The Impact of Covid-19 on Financial Markets Performance: An Empirical Study in Amman Stock Exchange. Calitatea, 25(199), 40-49.
73. Agyemang-Badu, A. A., Agyei, K., & Kwaku Duah, E. (2018). Financial inclusion, poverty and income inequality: Evidence from Africa, SpiritanInternational Journal of Poverty Studies, 2(2), 1–19.
74. Akhtar, M. F., Ali, K., & Sadaqat, S. (2011). Factors influencing the profitability of Islamic banks of Pakistan. International Research Journal of Finance and Economics, 1(66), 125-132.
75. Al-Bimani, A., & Matriano, M. (2021). The Impact of COVID-19 on the Financial Performance of Bank Dhofar. International Journal of Research in Entrepreneurship & Business Studies, 2(3), 47-56.
76. Alnsour, I. (2023). The effect of financial technology on Islamic banks performance in Jordan: Panel data analysis. International Journal of Data and Network Science, 7(4), 1515-1524.
77. Alnsour, I. R. (2022). Impact of fintech over consumer experience and loyalty intentions: an empirical study on Jordanian Islamic Banks. Cogent Business & Management, 9(1), 2141098.
78. Alnsour, I., Alghadi, M., Ahmad, A., Alibraheem, M., Altahat, S., Al-Smadi, R., & Alshboul, K. (2023). Islamic financial technology acceptance: An empirical study in Jordan. International Journal of Data and Network Science, 7(4), 1659-1668.
79. Al-Omoush, K. S., Simón-Moya, V., & Sendra-García, J. (2020). The impact of social capital and collaborative knowledge creation on e-business proactiveness and organizational agility in responding to the COVID-19 crisis. *Journal of Innovation & Knowledge*, *5*(4), 279-288.
80. Alper, D., & Anbar, A. (2011). Bank specific and macroeconomic determinants of commercial bank profitability: empirical evidence from Turkey. Business and Economic Research Journal, 2(2), 139-152.
81. Al-Shaghdari, F., & Bardai, B. (2020). Empirical analysis on the influence of internal and external parameters of Islamic banks financial performance: evidence from Malaysia. *International Journal of All Research Writings*, *3*(5), 33-40.
82. Alnsour, I. R. (2024). Technological turbulence as hindrance between factors influencing readiness of senior management and implementing blockchain technology in Jordanian Islamic banks: a structural equation modeling approach. Journal of Innovation and Entrepreneurship, 13(1), 1-19.
83. Al-Tamimi, H., Hassan, A. (2010) "Factors Influencing performance of the UAE Islamic and Conventional National Banks", Department of Accounting, Finance, and Economics, College of Business Administration, University of Sharjah.
84. Arner, D.W., Barberis, J. and Buckley, R.P. (2015) 'The evolution of FinTech: a new post-crisis paradigm', *Geo. J. Int'l L.*, *47*(1), 1271.
85. Baker, H., Kaddumi, T. A., Nassar, M. D., & Muqattash, R. S. (2023). Impact of financial technology on improvement of banks' financial performance. Journal of Risk and Financial Management, 16(4), 230.
86. Bilal, M., Saeed, A., Gull, A. A., & Akram, T. (2013). Influence of bank specific and macroeconomic factors on profitability of commercial banks: a case study of Pakistan. Research Journal of Finance and Accounting, 2(2), 117-126.
87. Cho, T. Y., & Chen, Y. S. (2021). The impact of financial technology on China's banking industry: An application of the metafrontier cost Malmquist productivity index. The North American Journal of Economics and Finance, 57, 101414.
88. Choong, Y. V., Thim, C. K., & Kyzy, B. T. (2012). Performance of Islamic commercial banks in Malaysia: an empirical study. Journal of Islamic Economics, Banking and Finance, 8(2), 67-80.
89. Curak, M., Poposki, K., & Pepur, S. (2012). Profitability determinants of Macedonian banking sector in changing environment. Procedia-Social and Behavioral Sciences, 44, 406e416.
90. Demirgu¨ç-Kunt, A., & Huizinga, H. (1998). Determinants of commercial bank interest margins and profitability: some international evidence. In Policy Research Working Paper, March 1998
91. Eljelly, A. M. (2013). Internal and external determinants of profitability of Islamic banks in Sudan: evidence from panel data. *Afro-Asian Journal of Finance and Accounting*, *3*(3), 222-240.
92. Farouk, B.K.U., & DanDago, K.I. (2015). Impact of investment in information technology on financial performance of Nigerian banks: is there a productivity paradox? The Journal of Internet Banking and Commerce, 20(1), 1-22.
93. Gazi, M. A. I., Nahiduzzaman, M., Harymawan, I., Masud, A. A., & Dhar, B. K. (2022). Impact of COVID-19 on financial performance and profitability of banking sector in special reference to private commercial banks: empirical evidence from Bangladesh. Sustainability, 14(10), 6260.
94. Gharaibeh, O. K., Al-Afeef, M. A. M., & Al-Okaily, M. (2022, May). The Effect of Cost Efficiency on Profitability and Value: Evidence from Jordanian Banks Sector. In European, Asian, Middle Eastern,

North African Conference on Management & Information Systems (pp. 563-579). Cham: Springer International Publishing.
95. Gomber, P., Koch, J. A., & Siering, M. (2017). Digital Finance and FinTech: current research and future research directions. Journal of Business Economics, 87, 537-580.
96. Hamdan, M., Gharaibeh, O., Al-Quran, A., & Nusairat, N. (2021). The impact of information technology investment on the financial performance of the banks. Acad Strateg Manag J, 20(6), 1-12.
97. Haron, S. (1996). Competition and other external determinants of the profitability of Islamic banks. Islamic economic studies, 4(1).
98. Al-Ababneh, H., Borisova, V., Zakharzhevska, A., Tkachenko, P., & Andrusiak, N. (2023). Performance of artificial intelligence technologies in banking institutions. WSEAS Trans. Bus. Econ, 20, 307-317.
99. Hiestand, T. (2005). Using pooled model, random model and fixed model multiple regression to measure foreign direct investment in Taiwan. International Business & Economics Research Journal (IBER), 4(12).
100. Hitt, M.A., Xu, K., & Carnes, C.M. (2016). Resource based theory in operations management research. Journal of Operations Management, 41, 77-94.
101. Istan, M., & Fahlevi, M. (2020). The effect of external and internal factors on financial performance of Islamic banking. *Jurnal Ekonomi & Studi Pembangunan*, *21*(1), 137-145.
102. Kim, Y., Park, Y. J., & Choi, J. (2016). The Adoption of Mobile Payment Services for "Fintech". International Journal of Applied Engineering Research, 11(2), 1058-1061.
103. Kalbouneh, N., Bataineh, K., Al-Hamad, A., Dwakat, M., Abualoush, S., Almasarweh, M., & Al-Smadi, R. (2023). The effects of the blockchain technology and big data analytics on supply chain performance: The mediating effect supply chain risk management. Uncertain Supply Chain Management, 11(3), 903-914.
104. Ltaifa, M. B., Hany, A., & Saleh, A. D. (2021). The internal factors determining the financial performance of Islamic banks. *International Journal of Innovation, Creativity and Change*, *15*(6), 52-64.
105. Mohammad Ebrahimzadeh Sepasgozar, F., Ramzani, U., Ebrahimzadeh, S., Sargolzae, S., & Sepasgozar, S. (2020). Technology acceptance in e-governance: A case of a finance organization. Journal of Risk and Financial Management, 13(7), 138.
106. Mukhibad, H., & Khafid, M. (2018). Financial performance determinant of Islamic banking in Indonesia. Jurnal Keuangan dan Perbankan, 22(3), 506-517.
107. Mustapa, A.N. and Mohamad, A. (2021). Malaysian Government Business Support and Assistance for Small and Medium Enterprises: A Case of COVID-19 Pandemic Crisis. Sergi, B.S. and Jaaffar, A.R. (Ed.) Modeling Economic Growth in Contemporary Malaysia (Entrepreneurship and Global Economic Growth), 291-305. http://doi.org/10.1108/978-1-80043-806-420211022
108. Ongore, Vincent Okoth.; Kusa, GemechuBerhanu. (2013),"Determinants of Financial Performance of Commercial Banks inKenya". International Journal of Economic and Financial Issues, Vol. 3, No. 1, pp.237-252.
109. Raghupathi, W., & Raghupathi, V. (2014). Big data analytics in healthcare: promise and potential. Health information science and systems, 2, 1-10.
110. Rashid, A., & Jabeen, S. (2016). Analyzing performance determinants: Conventional versus Islamic banks in Pakistan. Borsa Istanbul Review, 16(2), 92-107.
111. Riaz, S., & Mehar, A. (2013). The impact of bank specific and macroeconomic indicators on the profitability of commercial banks. The Romanian Economic Journal, 16(47), 91-110.
112. Safrali, A., & Gumus, G. K. (2010). The Effect of macroeconomic factors on the performance of Azerbaijan banking system. Journal of Money, Investment and Banking., 1(25), 59-69.
113. Samhan, H. M., & Al-Khatib, A. Y. (2015). Determinants of financial performance of Jordan Islamic bank. *Research Journal of Finance and Accounting*, *6*(8), 37-47.
114. Shaw, J.D., Park, T.Y., & Kim, E. (2013). A resource- based perspective on human capital losses, HRM investments, and organizational performance. Strategic Management Journal, 34(5), 572-589.
115. Shkodra, N., Sopi, X., & Krasniqi, F. X. (2021). The impact of foreign direct investment in the Western Balkan Countries-A panel data analysis. Int J Sustain Dev Plan, 16(6), 1185-90.
116. Srairi, S. (2013). Ownership structure and risk-taking behaviour in conventional and Islamic banks: evidence for MENA countries. Borsa Istanbul Review, 13(4), 115-127.
117. Tamimi, H. A. H. (2010). Factors influencing performance of UAE Islamic and conventional banks. Global Journal of Business Research., 4(2), 1-9.
118. Winarno, W.A., & Putra, H.S. (2020). Technology acceptance model of the Indonesian government financial reporting information systems. International Journal of Public Sector Performance Management, 6(1), 68- 84.
119. Yaseen, S. G., & El Qirem, I. A. (2018). Intention to use e-banking services in the Jordanian commercial banks. *International Journal of Bank Marketing*, *36*(3), 557-571.
120. Zeitun, R. (2012). Determinants of Islamic and conventional banks performance in GCC countries using panel data analysis. Global Economy and Finance Journal, 5(1), 53-72.