

The Impact of Financial Technology on Financial Performance: An Applied Study in a Sample of Islamic Banks in Iraq

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Abstract:

The aim of the research is to show the impact of financial technology in its combined dimensions (adoption of financial technology, investments in information technology) on the financial performance of Iraqi Islamic banks. The descriptive analytical approach (quantitative) was adopted, the simple probability sample method, the primary data were collected through the questionnaire, the research sample was 103 managers in the general administration, and it was analysed and hypotheses were tested using the SPSS V.23 program. The results showed that there is a weak significant (direct) correlation between financial technology in its combined dimensions and financial performance (ROA) at a significance level of 0.05, a significant impact of financial technology in its combined dimensions on financial performance (ROA) at a significance level of 0.05, and a significant direct significant impact of the dimension of investments in information technology on financial performance (ROA). The researchers recommend working on improving information security by using advanced encryption systems and firewalls to protect financial data, launching incentive programs to encourage digital innovation within banks, and employing information technology specialists to support digital transformation in the banking sector.

Keywords: Financial technology; financial performance; Islamic banks; Iraq

Introduction:

In the era of globalization and technological progress, which has come to play the most important role in all economic fields, due to the many benefits that these developments bring about, whether in the speed of performing and completing the required tasks or in the costs that are saved (Dasilas & Karanović, 2025). These benefits have prompted many governments to

promote the optimal operation of such technology, which can lead to optimal investment of available resources (material and human) (Uddin, et al., 2023). This is of course in addition to the possibility of enhancing the absolute or relative competitive advantages that the state may enjoy compared to other economies or societies (Alkhaldeh, et al., 2023). This pursuit by

governments is often It pays off by developing a comprehensive vision of how to deal with and integrate into this digital world (Alabdullah, 2023). This readiness includes all methods, applied energy, and air and ground networks, in addition to the continuous investment in the human element necessary to interact and work appropriately with these developments (Al-Shari, & Lokhande, 2023). In addition to this infrastructure, there is another effort to enhance financial inclusion in order to provide opportunities for the business and individual sectors (Chen, et al.,2022). Here, many banks and the financial services sector face many challenges resulting from these technological developments, and these developments may push decision-makers in banks and other financial companies (Saleem, 2021). Or other banking entities from setting several scenarios (Jourdan, et al.,2023). Because banks are the most important financial institutions in all economies, the most important thing that governments can do to improve their financial performance and implement financial and monetary policies is to (Safiullah& Paramati, 2024). So, societies seek and companies in All over the world to benefit from Modern technologies such as technology Finance to increase Its economic growth (Smilor, et al.,1989). In order to overcome the major challenges faced by the monetary authority after the fall of the political regime in Iraq in 2003, the Central Bank of Iraq sought to adopt several banking reforms and procedures, the most important of which was the expansion of the use of electronic technological systems and modern methods of dealing with them (AL-mamoorey& Al-Rubaye, 2020). The Iraqi banking sector suffers from a lack of interest in developing financial technology and not fully applying its techniques in Banks (Khudair& Hussein, 2022). The banking sector in Iraq still suffers from the weak use of modern technologies in its work, unlike what exists in the region (Al_Khero,et al.,2019).Thus, the banking system in Iraq has witnessed several changes since its establishment in the early twentieth century, as the banking industry (technology) in Iraq

remained unstable until 2020 when most banks resumed their operations (Alalie, et al.,2018).By ignoring advanced technological laws and regulations (Alghorbany, et al.,2022).Moreover, the financial performance of Islamic banks in the Middle East suffers from weakness as a result of the restriction of the banking industry (technology), which reflects its shadow by making Banks Islamic less Efficiency in providing banking services and increases costs operational, which Reduces growth opportunities and increases return on assets ROA (Khoirin, & Sudarmawan, 2024). As a result of the shortage and the decline in Usage And benefit from Applications Technology Finance and its impact on financial performance in the Iraqi banking sectors well as Number of Aspects: such as improving customer experience (Alfatlawi & Alsaedi, 2023). increasing efficiency, reducing costs and digital transformation (Suryono& Purwandari, 2020). The order which requires formulating a problem the study with the following main question: What is the impact of financial technology on? Financial performance of Islamic banks?

The research objectives were to identify :nature Relationship with meN FinTech and Financial Performance of Islamic Banks, measurement impact Financial technology on the financial performance of Islamic banks, and to show the fundamental impact of financial technology (adoption of financial technology, investments in information technology) on financial performance in application to a sample of Islamic banks in Iraq and represents to The answers will be based on the opinions of the respondents to achieve the objectives: The following questions emerge from the objectives:

- Q1. What she nature the relationship between Fintech and financial performance?
- Q2. what impact Fintech on financial performance?
- Q3. What is the substantive impact of FinTech (FinTech adoption, IT investments) on financial performance in practice in a sample of Islamic banks in Iraq?

The importance of the study is evident from the novelty of the topic and the diversity of its elements, as it was Use a self-variable of great importance at the present time that has not received enough attention before Previous studies, considering tote benefits of the impact of financial technology in improving financial performance (Lontchi, et al.,2023). And so wed the study is considered to be of scientific importance and contribution due to the scarcity of literature dealing with the subject in Iraqi banks. As for the practical contribution, it will be applied in the Islamic banking community in Iraq. And work (banks)Iraqi. From the results This is amazing Study on identifying financial technology and its impact on its performance.

What was organized? remain from this paper as follows in the second section review Literature and the frame Theoretical, the third section included methodology Data and opinion analysis Respondents Section Fourth: Conclusions and recommendations

Review Literature and the frame Theoretical FinTech:

There are many definitions of financial technology. The Basel Committee on Banking and Financial Supervision defined financial technology as a financial technology and innovation that results in the formulation of a business model or a set of new operations or products that have a positive impact on financial institutions and markets (Al-Ajlouni,2018). The International Monetary Fund defined financial technology as a set of financial innovations that apply technological means and have the ability to build a number of business models (Neama, et al.,2023). The National Digital Research Centre in Dublin defined digital technology as a number of modern innovations and inventions in the field of the financial and banking sector. These inventions include a number of digital programs and applications that are applied and used in all banking and financial operations of banks and financial institutions (Keogh, 2021). The Stability Council knew Financial Stability Boers's) defines financial technology as a process of creative

financial innovations made possible by technological means and resulting in commercial activities(Issa, et al.,2024).The definitions agreed that financial technology includes modern technologies, and this is the characteristic that distinguishes financial technology, and that it includes two important axes, which are technology (Technology), and Financial, which means applying technological and technical means in the financial and banking services sector. The term FinTech was combined, meaning a technological innovation process employed to improve banking and financial services and achieve benefit and interaction between several parties. It includes users of financial technology, banks and financial institutions and their clients, as well as economic organizations with various activities (Fatima,2021).

Accreditation Technology Finance:

It means adopting and applying all innovative technologies and business models in order to improve access to financial services (Asia,et al .,2023).The process of adopting financial technology is defined as the use of a set of digital programs, which are used in the financial operations of banks, and include transactions with customers, clients, and financial services(Boutaleb, 2024). It is also known as the trend of economic and financial institutions to apply advanced methods based on new technologies and new financial innovations (Mention, 2019). It is also known as the reliance on electronic business in various institutions in order to ensure quality and speed in providing banking services in order to enable customers to conduct their transactions through the Internet (Belouta & Ramadan,2022). It is also known as the use of financial technologies, innovative business models and emerging technologies that have the potential to transform the financial services industry, process transactions easily, and use them to settle all accounts correctly (Suryono, et al.,2020).

Investments in technology Information:

Information technology is a set of activities that facilitate the collection, acquisition, storage,

processing, transmission, display, and transfer of information from one place to another by electronic means, i.e. it is a combination of hardware, software, and communications networks (Abdulreda, et al.,2020). Information technology investments are defined as companies investing in information technology capital through computers, software and similar equipment that are used in all companies from all industries (Kholoud & Islahi 2021). And you know That he is Seeking to transform the results of scientific research, innovations and inventions in the theoretical field into the applied field or to transfer technology from countries with technological advancement to developing countries (Abdulreda, et al.,2020). The process of investing in information technology is defined as investing in technology, i.e. harnessing a set of human and material assets and organizational capabilities necessary to generate the technology itself (Belouta & Ramadan,2022). It is also known as the process of local technological transfer, through valuing the results of scientific research and innovation, or transferring technology from countries that own the technology (Suryono& Purwandari, 2020).

Financial performance:

Financial performance is defined as a diagnosis of the financial health of the organization to determine its ability to create value facing the future by relying on budgets, income statements and other financial statements (With & Ahlam,2020). It is also known as the financial results that the organization is trying to achieve from a financial perspective and they represent the goals that can be used as standards to measure the efficiency of the company's financial plan (Yasmine & Wahib,2019). Financial performance is defined as the ability to complete a planned task measured by objective, comprehensive criteria, and speed, i.e. the degree to which the desired goal can be achieved.

Methodology:

The descriptive analytical approach and quantitative research method were adopted to

demonstrate the impact of Financial Technology on Financial Performance as Applied to Islamic Banks in Iraq, Most academic studies use the deductive approach to achieve a strong conclusion for the hypothesis being tested (Trochim& Donnelly, 2001).The employees were selected at Islamic Banks in Iraq (General Administration) for 8 Islamic Banks(Study community), and using the simple probability sampling technique through the data collection tool (questionnaire) prepared electronically from during(Google form) is a versatile and easy-to-use tool for data collection and surveys, and the tool offers data analysis tools .Comprehensive, Including charts and graphs, making it easier to visualize and interpret. Responses (Pundhir, et al.,2024). It included Questionnaire on (52) Paragraph of it (37) paragraph for variable FinTech (Ali& Khalif,2023). (15) Paragraph for variable Financial performance (Azaiziah, ,2020) It consists of three parts: demographic data and (2) Fintech in all its dimensions (Technology adoption Financial Investments in Technology Information) Based Ato study (Nugroho& Valencia, 2023). and (3) Financial performance ROA (dependent variable) Based on a study (Do, et al.,2023) Where it was determined (140) boss (Study sample) The number of respondents' responses was (103) An answer that represents the lower limit of the distribution based on the sample size measure. <http://www.raosoft.com/samplesize.html> With an error rate of 5%, it was analysed using the program. SPSS V.24 statistical and a number of methods and tools, Cronbach's alpha coefficient for the stability and validity of the study questions, the five-point Likert scale, descriptive analysis (tools for measuring central tendency, statistical dispersion, frequencies, percentages), multiple linear regression coefficient to show the effect of variables, correlation coefficient between variables.

Research hypotheses:

H1.a: There is an effect Statistically significant for technology adoption Finance on Financial performance of Islamic banks in Iraq at a significant level0.05

H1.b: There is a statistically significant impact of investments in information technology on the financial performance of Islamic banks in Iraq at the level of Significance 0.05

H2.a: There is a correlation between Statistical significance of technology adoption Finance on Financial performance of Islamic banks in Iraq at a significant level 0.05

H2.b: There is a correlation Statistically significant impact of investments in information technology on the financial performance of Islamic banks in Iraq at the level of Significance 0.05

Results of study sampler characteristics

It is noted from Table No. (1) that the percentage of (61.2%) of the study population Males While the percentage of individuals is less than Females in percentage(38.8%),And the percentage(55.3%) Bachelor's degree holders And with a specialization in accounting at a rate of (22.2%)while Decrease by(2.9%) from Certificate holder Preparatory, And the percentage(49.2%), And the percentage(35.9%) for the age of the study community members(from 31-36 years,37-42 years old) while it decreases by(10.7%) for ageStudy community members from 25-30 years oldAs for the job position, It was représenté by (82.6%) Who are the heads of departments in banks?

Table (1) distribution Study sample according to demographic variables

Variable	Category	Répétition	Percentage %
Gander	Male	63	61.2
	Females	40	38.8
Carrer Center	boss	9	8.7
	Assistant Director	9	8.7
	Head of Department	85	82.6
Academic achèvement	Préparatoire	3	2.9
	diplôme	9	.88
	Bachelor's	57	55.3
	Masters	23	22.3
	PhD	11	10.7
Spécialisation	accounting	23	22.2
	Finance and Banking	15	14.6
	business management	21	20.4
	economy	18	17.5
	law	14	13.6
	Other	12	11.7
The Age	25-30 years old	11	10.7
	31-36 years	37	35.9
	37-42 years old	37	35.9
	Over 42 years	18	17.5
	The total	103	100.0

Outputs of SPSS V.23

Table (2) Descriptive analysis					
		FinTech Adoption	IT investments	Financial performance (ROA)	
N	Valid	103	103	103	
	Missing	0	0	0	
Mean		55.8155	35.7961	37.1068	
Std. Deviation		11.39724	7.77548	7.48451	
Skewness		1.107	1.228	0.937	
Kurtosis		4.720	2.214	2.154	

Table (3) Dependency analysis (stability Study questions)

Cronbach's Alpha	N of Items
0.879	52

Outputs PSS V.23

Based on the analysis of the validity and reliability of the study questions, the Cronbach's alpha coefficient represented a high degree of reliability and all the coefficients for the questions were

higher than the conditional level.0.60 according to (Sekaran& Bougie, 2003). The overall reliability of the questionnaire was0.879It has a high stability rate.

Testing study hypotheses:

Table (4) Correlation and internal consistency analysis

		Financial performance (ROA)	FinTech Adoption	IT investments
Financial performance (ROA)	Pearson Correlation	1	0.446**	0.480**
	Sig. (2-tailed)		0.000	0.000
	N	103	103	103
FinTech Adoption	Pearson Correlation	0.446**	1	0.442**
	Sig. (2-tailed)	0.000		0.000
	N	103	103	103
IT investments	Pearson Correlation	0.480**	0.442**	1
	Sig. (2-tailed)	0.000	0.000	
	N	103	103	103

Significant at the 0.05level (2-tailed).

Correlation coefficients ranging from (0.01 - 0.49) represent a weak correlation between the variables and upward (medium) for coefficients (0.50 - 0.69), strong for coefficients 0.70 - 0.99, while +1 represents a direct perfect correlation and vice versa in the case of a negative sign. The correlation analysis table showed that the correlation between the independent variable (Adoption of financial technology) and the dependent variable (Financial performance (ROA) Direct Relationship Weak Because Factor Pearson Correlation (0.446**) and significant 0.000 And vice versa, and the correlation of the variable

Independent (investments in information technology) and the variable Independent (Financial performance (ROA) Direct Relationship weak and vice versa Because Factor Pearson Correlation (0.480**) and significant 0.000, That is, the more the independent variable increases, the more the dependent variable increases. Therefore, we accept Hypothesis Alternative (H2.b, H2. a) Because the correlation between the two variables is positive and the significance is 0.000 less than the significance level 0.05.

Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.546a	0.298	0.284	6.33308

- a. Predictors: (Constant), IT investments, FinTech Adoption
- b. Dependent Variable: Financial performance (ROA)

Based on the model summary of the multiple linear regression outputs, the correlation coefficient is 0.54, meaning there is a correlation between the variables, and explains the variance of the joint prediction. R2 Square for the

independent variable (financial technology in its dimensions) affects the dependent variable (financial performance (ROA) by 0.298, while the amount of 71% is outside the effect.

ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1703.029	2	851.515	21,231	0.000b
Residual	4010.796	100	40.108		
Total	5713.825	102			

- a. Dependent Variable: Financial performance (ROA)
- b. Predictors: (Constant), IT investments, FinTech Adoption

Shows The table is Analysis of variance Supports value F (21.231) It appeared statistically significant because the significance level was less than 0.05. This enables us to rely on the model formula and adopt the results.

Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
1 (Constant)	14.357	3.567		4.025	.000			
FinTech Adoption	0.190	0.061	0.290	3.105	0.002	0.446	0.296	0.260
IT investments	0.339	0.090	0.352	3.765	0.000	0.480	0.352	0.315

a. Dependent Variable: Financial performance (ROA)

We note in the table Coefficients For slopes: The relationship between Pearson's correlation coefficient and multiple linear regression, and to show the substantial impact Fintech in all its dimensions (FinTech (investments in IT) on financial performance (ROA). with regards for the distance IT investments) at significance level 0.05 because of the moral for the distance below significance level 0.05 And being less sig Compared to the dimension (financial technology adoption), which indicates that investments in information technology have a significant impact. This means that if investments in information technology change by one unit, it will change the dependent (financial performance (ROA) by the amount of 0.339 The rest of the independent dimensions

have an impact and a correlation between them. Therefore, the hypothesis is accepted. (H1. a, H1.b).

Conclusion:

The results of the study showed that there is a significant positive effect of the dimension of "FinTech "IT investments on financial performance (ROA) Because it is less moral This was tested using the multiple linear regression method, which allows also By including a set of predictive variables and testing their effect on the dependent variable, the results showed that the dimensions FinTech Combined (FinTech adoption, IT investments) Explain 29% from change in the dependent variable Financial performance (ROA), while the amount of 71% is outside the effect. The

results regarding the essential effect are consistent with the study (Hamdan, et al.,2021; Gunawan& Serlyna, 2018; Dandago,et al.,2012).There is a positive correlation between the independent variable (adoption of financial technology, investments in information technology) and financial performance.(ROA)Conversely, to a weak degree according to the correlation coefficient because the significance of the variables is less than the significance level.0.05Therefore, it is necessary to Adopting cloud computing to reduce operational costs and increase banking flexibility, working on Improve information security Using advanced encryption systems and firewalls to protect financial data., Raising security awareness For employees and customers to prevent cyber-attacks, Launching incentive programs to encourage digital innovation within banks,Hiring IT professionals to support digital transformation in banking sector.

References:

1. Abdulreda, M. S., Kareem, H. M., & Harjan, S. A. (2020). Financial Technology and its Role in Achieving Sustainable Development. *Cihan University-Erbil Journal of Humanities and Social Sciences*, 4(2), 127-135. [CrossRef] [Google Scholar]
2. Al_Khero, I. M. M., Janudin, S. E. B., Abdelhakeem, A., & Ahmed, K. (2019). The impact of financial engineering on the financial performance in Iraqi Banks. *Global Journal of Accounting and Finance*, 2, 33-46. [CrossRef] [Google Scholar]
3. Alabdullah, T. T. Y. (2023). The impact of financial technology and risk management practices on corporate financial system profitability: evidence from

Kuwait.<https://essuir.sumdu.edu.ua/handle/123456789/93187>[CrossRef] [Google Scholar]

4. Al-Ajlouni, A. (2018, April). Financial technology in banking industry: Challenges and opportunities. In *e International Conference on Economics and Administrative Sciences ICEAS2018*. [CrossRef] [Google Scholar]
5. Alalie, H. M., Harada, Y., & Noor, I. M. (2018). The challenges of creating sustainable competitive advantage in the banking industry in Iraq. *World Journal of Business and Management*, 4(2), 1-15.<https://doi.org/10.5296/wjbm.v4i2.13871>[CrossRef] [Google Scholar]
6. Alfatlawi, H. A. K., & Alsaedi, W. K. A. (2023). The Effect of Electronic Payments on Customer Satisfaction (Case Study of the Al-Watani Islamic Bank Iraq). *AL-IKTISAB: Journal of Islamic Economic Law*, 7(1), 141-162 . <https://doi.org/10.21111/aliktisab.v7i2.10567> [CrossRef] [Google Scholar]
7. Alghorbany, A., Che-Ahmad, A., & Abdulmalik, S. O. (2022). IT investment and corporate performance: Evidence from Malaysia. *Cogent Business & Management*, 9(1), 2055906.<https://doi.org/10.1080/23311975.2022.2055906>[CrossRef] [Google Scholar]
8. Ali, Enas Ayoub Hussein, Aziz, Ezzou Khalif. (2023). “The Role of Financial Technology in Improving the Financial Performance of Banks - A Field Study on a Sample of Private Banks in Erbil Governorate” *Journal of Accounting and Financial Studies*, Volume (18), Issue 65, Pp: 465-477.[CrossRef] [Google Scholar]
9. Alkhalwaldeh, 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. [CrossRef] [Google Scholar]
10. AL-mamoorey, M. A., & Al-Rubaye, M. M. (2020). The role of electronic payment systems in Iraq in reducing banking risks: an empirical research on private banks. *Polish Journal of Management Studies*, 21(2), 49-59. DOI: [10.17512/pjms.2020.21.2.04](https://doi.org/10.17512/pjms.2020.21.2.04) [CrossRef] [Google Scholar]
11. Al-Shari, H. A., & Lokhande, M. A. (2023). The relationship between the risks of adopting FinTech in banks and their impact on the performance. *Cogent Business & Management*, 10(1), 2174242. <https://doi.org/10.1080/23311975.2023.2174242> [CrossRef] [Google Scholar]
12. Asia, Ben Sassi, Khadra Dahou, Hosseini Ishaq. (2023). "The Relationship between Digital Financial Technology and Financial Inclusion." *Journal of Legal and Economic Studies* 5.3: 165-192.
13. Azaiziah, Fadhila. (2020). "Information and Communication Technology and its Impact on Performance in the Economic Institution - Case Study of the Algerian Telecommunications Corporation, Operational Directorate - Guelma" Master's Thesis, Department of Management Sciences, Faculty of Economics, Commerce and Management Sciences, University of May 8, 1945, Guelma - Ministry of Higher Education and Scientific Research,. Pp. P: 1-129 <http://dspace.univ-guelma.dz:8080/xmlui/handle/123456789/10300> [CrossRef] [Google Scholar]
14. Belouta Khaled, Baraghat Ramadan. (2022). "The impact of financial technology on the performance of banks: a field study of a sample of Algerian banks in the city of Guelma (BNA-BADR-CPA). Master's thesis. University of May 8, Algeria. <http://dspace.univ-guelma.dz/jspui/handle/123456789/13040> [CrossRef] [Google Scholar]
15. Boutaleb, Hanaa. (2024). "The Role of Financial Technology in Improving Electronic Banking Services - An Analytical Study of the Experience of the Kingdom of Saudi Arabia with Reference to the Case of Algeria". Master's Thesis. University of Martyr Sheikh Larbi Tebessi, Tebessa. <http://oldspace.univ-tebessa.dz:8080/xmlui/handle/123456789/http://localhost:8080/jspui/handle/123456789/11439> [CrossRef] [Google Scholar]
16. Chen, B., Yang, X., & Ma, Z. (2022). Fintech and financial risks of systemically important commercial banks in China: an inverted U-shaped relationship. *Sustainability*, 14(10), 5912. <https://doi.org/10.3390/su14105912> [CrossRef] [Google Scholar]
17. Dandago, K. I., Farouk, B. K., & USMAN, B. K. (2012). Impact of investment in information technology on the return on assets of selected banks in Nigeria. *International Journal of Arts and Commerce*, 1(5), 235-244 [CrossRef] [Google Scholar]
18. Dasilas, A., & Karanović, G. (2025). The impact of FinTech firms on bank performance: evidence from the UK. *EuroMed Journal of Business*, 20(1), 244-258. <https://doi.org/10.1108/EMJB-04-2023-0099> [CrossRef] [Google Scholar]
19. Do, H. N., Do, L. C., Tran, M. D., Dao, A. T. A., & Tran, T. T. D. (2023). The impact of technological innovation on the performance of Vietnamese firms. *Interdisciplinary Journal of Management Studies (Formerly known as Iranian Journal of Management*

- Studies*, 16(1), 299-321. <https://doi.org/10.22059/ijms.2022.328219.674681> [CrossRef] [Google Scholar]
20. Fatima Abdullah Muhammad, Attia. (2021). "Financial Technology and Supporting the Competitiveness of Islamic Banks: An Applied Study of Faisal Islamic Bank 2005-2019" *Journal of Contemporary Business Studies*, Volume Seven, Issue Twelve, Part One, 361-400. <https://dx.doi.org/10.21608/csj.2021.222219> [CrossRef] [Google Scholar]
21. goodness With Rawya, Tajine, Radhia, Ahlam. (2020). "The role of the balanced scorecard in improving the financial performance of the economic institution for the period 2016-2019". Master's thesis. University of Kasdi Merbah. Ouargla.. <https://dspace.univ-ouargla.dz/jspui/handle/123456789/35298> [CrossRef] [Google Scholar]
22. Gunawan, H., & Serlyna, S. (2018). Impact of information technology investment to financial performance on banking sector. *Journal of Applied Managerial Accounting*, 2(1), 41-46. <https://doi.org/10.30871/jama.v2i1.700> [CrossRef] [Google Scholar]
23. Hamdan, M., Gharaibeh, O., Al-Quran, A., & Nusairat, N. (2021). The impact of information technology investment on the financial performance of the banks. *Academy of Strategic Management Journal*, 20(6), 1-12. <https://doi.org/10.1016/B978-0-443-15665-6.00008-7> [CrossRef] [Google Scholar]
24. Issa, H., Dakroub, R., Lakkis, H., & Jaber, J. (2024). Navigating the decision-making landscape of AI in risk finance: Techno-accountability unveiled. *Risk Analysis*. <https://doi.org/10.1111/risa.14336> [CrossRef] [Google Scholar]
25. Jourdan, Z., Corley, J. K., Valentine, R., & Tran, A. M. (2023). Fintech: A content analysis of the finance and information systems literature. *Electronic Markets*, 33(1), 2. <https://doi.org/10.1007/s12525-023-00624-9> [CrossRef] [Google Scholar]
26. Keogh, P. (2021). *The Growth of Digitization of Retail Banking in Ireland, and the impact FinTechs' have on the adoption and actual usage* (Doctoral dissertation, Dublin Business School). [CrossRef] [Google Scholar]
27. Khoirin, L. T. P., & Sudarmawan, B. N. (2024). Shariah Banking dynamics: Financial performance and stability amid middle east conflict. *Al-Infraq: Jurnal Ekonomi Islam*, 1(1), 49-68. [CrossRef] [Google Scholar]
28. Kholoud Brahma, Saliha Islahi. (2021). "The Role of Financial Technology in Developing the Financial Sector: A Case Study of Bahrain During the Period (2016-2020)". Master's Thesis. University of May 8, 1945. Algeria. [CrossRef] [Google Scholar]
29. Khudair, R. K., & Hussein, I. A. (2022). The Role of Financial Technology in Achieving Customer Satisfaction: A Field Study in a Sample of Iraqi Banks. *Millennium Journal of Economic and Administrative Sciences*, 3(1). [CrossRef] [Google Scholar]
30. Lontchi, C. B., Yang, B., & Shuaib, K. M. (2023). Effect of financial technology on SMEs performance in Cameroon amid COVID-19 recovery: The mediating effect of financial literacy. *Sustainability*, 15(3), 2171. <https://doi.org/10.3390/su15032171> [CrossRef] [Google Scholar]
31. Mention, A. L. (2019). The future of fintech. *Research-Technology Management*, 62(4), 5963. <https://doi.org/10.1080/08956308.2019.1613123> [CrossRef] [Google Scholar]

32. Neama, N. H., Abbood, R. H., & Aref, S. A. S. (2023). Financial technology and its role in Iraqi banking industry (analyzing study for selected private banks of Iraq). *Open Journal of Business and Management*, 11(4), 1577-1583. <https://doi.org/10.4236/ojbm.2023.114087>[CrossRef] [Google Scholar]
33. Nugroho, D. S., & Valencia, C. (2023, February). MSME Financing and its Investment on Corporate Performance: The Role of Fintech Adoption. In *Proceeding Medan International Conference on Economic and Business* (Vol. 1, pp. 645-654). <https://doi.org/10.30596/miceb.v1i0.170>[CrossRef] [Google Scholar]
34. Pundhir, A., Mehto, A. K., & Jaiswal, A. (Eds.). (2024). *Open Electronic Data Capture Tools for Medical and Biomedical Research and Medical Allied Professionals*. Elsevier. <https://doi.org/10.1016/B978-0-443-15665-6.00008-7>[CrossRef] [Google Scholar]
35. Safiullah, M., & Paramati, S. R. (2024). The impact of FinTech firms on bank financial stability. *Electronic Commerce Research*, 24(1), 453-475. <https://doi.org/10.1007/s10660-022-09595-z>[CrossRef] [Google Scholar]
36. Saleem, A. (2021). Fintech revolution, perceived risks and Fintech adoption: Evidence from financial industry of Pakistan. *International Journal of Multidisciplinary and Current Educational Research*, 3(1), 191-205. [CrossRef] [Google Scholar]
37. Sekaran, U., & Bougie, R. (2003). Research methods for business 5th Ed: a skill building approach. *Journal of Education Business*, 68(5), 316-317. [CrossRef] [Google Scholar]
38. Smilor, R. W., Gibson, D. V., & Kozmetsky, G. (1989). Creating the technopolis: High-technology development in Austin, Texas. *Journal of Business Venturing*, 4(1), 49-67. [https://doi.org/10.1016/0883-9026\(89\)90033-5](https://doi.org/10.1016/0883-9026(89)90033-5)
39. Suryono, R. R., Budi, I., & Purwandari, B. (2020). Challenges and trends of financial technology (Fintech): a systematic literature review. *Information*, 11(12), 590. <https://doi.org/10.3390/info11120590> [CrossRef] [Google Scholar]
40. Trochim, W. M., & Donnelly, J. P. (2001). Research methods knowledge base (Vol. 2). Cincinnati, OH: Atomic Dog Publishing. [CrossRef] [Google Scholar]
41. Uddin, M. H., Mollah, S., Islam, N., & Ali, M. H. (2023). Does digital transformation matter for operational risk exposure?. *Technological Forecasting and Social Change*, 197, 122919. <https://doi.org/10.1016/j.techfore.2023.122919>[CrossRef] [Google Scholar]
42. Yasmine Hekmat Salman, Hamza Faeq Wahib. (2019). "Measuring the Impact of Social Responsibility and its Reflection on the Financial Performance of Banks: An Applied Study in the National Bank of Iraq." *Journal of Accounting and Financial Studies (JAFS)* 14.48. <https://doi.org/10.34093/jafs.v14i48.434> [CrossRef] [Google Scholar]