

Integrating Artificial Intelligence into Shariah Islamic Banking Recommendations for The Development of Islamic Banking

Prof. Dr. Aijaz Ali Khoso

Professor, Al-Hamd University, Islamabad Campus.

Email: aijaz.khoso80@gmail.com

Dr. Muhammad Shoaib Khan Pathan

Associate Professor, Government College University Hyderabad, Sindh, Pakistan.

Email: pakshoaib.khan@gmail.com

Received on: 03-10-2024

Accepted on: 05-11-2024

Abstract

This article is based on the readiness of Islamic banking partners for in-depth discussion in the Shariah Commission. This is necessary to maintain knowledge of Islamic banking and finance, as well as to comply with Sharia law. This article discusses the inclusion of robo-advisors in the Shariah Committee on Sharia Law in real time. Demonstrate the capabilities of the Block Lock Management System (BMS) to strengthen Sharia compliance and auditing functions to ensure Sharia compliance for Islamic banks.

Keywords: Shariah Commission, Shariah Compliance, Robot Consulting

Introduction

The Islamic financial services (FinTech) industry has grown steadily and now accounts for \$79 billion, or 18% of the global fintech market. By 2022, the global Islamic fintech market will be worth \$179 billion. Islamic banks collaborate with fintech companies to develop competitive technologies. Today, banks are using artificial intelligence (AI) to invest in infrastructure and implement business models for cash flow management, peer-to-peer lending, big data analytics, and remittances (Lee Shin, 2018). Financial information on social media is also the largest choice of social media users.

Their commitment to Islamic values is to allow Islamic banks to operate in the corner of the Sharia committee. Islamic banks should be from the point of view of Sharia. The selection of candidates should be made in the field of morality, experience in Islamic banking. How can Islamic economics, revolution, and progress be compatible with Sharia? Sharia Advisor to Fintech Property, Sharia Law Oversight, and Partnership with Mathematical Trust. Sharia consultants, peers in the profession, and the variety of financial products and services available in the financial sector are also factors. With the development of the Digital Suite solution, Sharia consultants can now comply with Sharia law and save money. Block alchemy

makes Sharia-compliant financial transactions available (Chong, 2021). Haridan et al. (2023) show that the use of AI-based robots allows Sharia governance to enforce Islamic law quickly and efficiently. In the early stages of research and further development, Islamic banks provide Islamic advice on the fundamentals of financial technology (Laldin Djafri, 2019). Poon et al., 2020; Mukhibad, 2023).

This research aims to explore the role of artificial intelligence in improving Sharia guidelines, integrating fast-growing fintech companies, and overcoming the benefits of strong ethics. Use of blockchain, robotic consulting, and big data analytics Artificial intelligence plays the role of a strong Islamic board of directors and plays a key role in the integration and transformation of financial technology in Islamic financial institutions. Running the Sharia Law Council, the largest Islamic bank, and the art of good progress in Islam for generations.

Improvement of research methods and technologies

Xuesong Zhai et al., 2021 (by De Bakker et al.) Gu. (2019) A methodology describing Islamic banking strategies for considering the financial advantages and disadvantages of Islamic banking in accordance with Sharia law. Search for books, websites, and databases on artificial intelligence in Google Scholar, Elsevier, Emerald, and other journals such as big data analytics, blockchain, and robot-based Sharia. Essentially, AI devices can be used to ensure the stability, independence, and functionality of Sharia, as well as to ensure quality compliance with Sharia. Suggested books are published by publishing articles, conference proceedings, books, book chapters, and journals to save money. (Lin, K.-K., et al., 2023). Consider the abstract of the article (Table 1) before accepting the offer and overcoming the Shariah Conference as the main obstacle. The figure of 2016-2023 is proof of the fears of Islamic banks. Commentators look at the numbers from 2016 to 2023 to see the materialization of their arguments, which are not the latest Islamic banks.

Results and discussions

Table 1. Commentary on the article on Islamic banking on the challenges of Sharia fintech

MA RR Y#	Title of the article	I want to	Purpose of the study	Method	Explanation
01.	Quttainah, M.A. und Almutairi, A.R. (2016). Business Ethics: Evidence Islamic banks.	Journal of Manageme nt and Public Administra tion	Study of the behavior of the bank's management about companies Ethics	Examples of data from a commissio n of 15 people Selected countries	Strong leadership from the Shariah Council can ensure that Islamic banks comply with Shariah norms and laws Стандарти.

02.	Haridan, N. F. M., Хасан, А. Ф. С. и Карбхари, Й. (2018). Public Administration, Religious Security and Islamic Banking: The Effectiveness of Sharia Councils Serve?	Journal of Manageme nt and Public Administr ation	Explore the role of Sharia councils in verifying compliance.	Semi- structured interviews	Sharia bodies are ceremonial observers rather than vigilant observers of Sharia compliance due to a lack of skills and competencies.
03.	La Toré, M., Dumais, J. und Rhea, M.A. (2018). The Destruction of Intellectual Capital: Critical Reflections on the Destruction of Intellectual Capital Big data security.	Meditari Accountin g Studies	Reviews of articles on intellectual capital and big data	-	Data breaches pose a threat to intellectual capital and value creation and therefore threaten Interests.
04.	Manay, M. A. & Ahmed, H. (2019). A study on the work of the Shariah Supervisory Board in the field of Islamic finance: the view of Shariah scholars of the Cooperation Council for the Arab States of the Gulf.	Quarterly Economic and Financial Review	In order to verify the structure of the Shariah body, supervision is carried out directly by the members of the State Security Service themselves	Semi- structured interviews	Supervision by the Shariah Council may be required Operational risk in the form of Shariah compliance risk due to insufficient Shariah independence and transparency.

05.	Meslieux, K., Risfundi, T. & Tarazi, A. (2020). Equity Financing of Islamic Banks, Shariah Supervisory Board and Banking Environment.	Pacific Financial Review	Shariah Council Study on Potential Determinants of Capital Financing	Samples were collected from 88 Islamic banks in 16 countries. in the period from 2009 to 2009. 2014	The duality of the members of the Shariah Council has a positive effect on the financing of capital, while the presence of Sharia Apartment Sheriat in Frames auf Banks This has a negative impact.
06.	Tajudin, M., Omar, R., Smedlund, A., Aziz, R. . (2020). Financing with Soul and Intelligence: More Intimacy and Resilience through Islamic Fintech Companies.	Internatio nal Journal of Advanced Science and Technolog y	Explain how fintech startups in Finland and Malaysia are implementing financial inclusion through e- marketplaces, payments, and P2P financing.	This study uses literature reviews, conceptual analysis, and case study methods	The results of this study show that Islamic fintech companies a viable and productive option for raising funds within the framework of Content Automatically.
07.	Mansur, M., Elahi, N., Хасан, А., Малик, К. А., Уахид, А. и Ула, Н. (2020). Corporate Governance, Shariah Governance, And Solvency: Cross-Border Analysis From Asian Islamic banks.	Open Innovatio ns Magazine: Technolog ies, Market, and Complexit y	To study the relationship between the characteristics of corporate governance, the attributes of Sharia and the attributes of Sharia and solvency of Asian Islamic banks	22 Sample Data Banks in 2006 – 2018 Period	This one To study install that Credit The ratings were positively correlated with board size, competencies, women on the board, Sharia board size, Sharia board of directors, Sharia board closure, and women's Sharia Scientist.

08.	Manita, R., Elommal, N., Bodie,, & Hikerova, L. (2020). Project Digital transformation External audit and its impact	Technological foresight and social change	Yes The impact of digitalization on the audit sector and its potential for Increase efficiency	Interview	This study highlights the need to integrate digital tactics into the audit business to: Improving the efficiency of audits,
	ZUR Corporate Governance.		Take a management tool with you.		Importance and quality. Tin It also fosters creativity in these areas Organization.
09.	Poon, J., Chow, Yu.U., Evers M. and Ramli, P. (2020). Draft The role of competencies in Islamic Finance Innovation: Evidence Bahrain and Malaysia.	Vestnik na Open Innovation: Technology Market and Complexity	Explain Effect Different Competencies of MFIs Research in the field of innovation.		Sharia Board Experience can be Help Islam Establishment of banks Risk associated with assets Division Tools for Dismantling Sharia Risks and Promote Finance Innovation.
10.	Safiula, M., Hassan, M. K. and Kabir, M. N. (2022). Corporate Management and Liquidity Create Link in Islamic Banks - E Administration Capacity for Channel?.	Global Finance Daily	For scientific research Effect dual Advice Administration Machinery (Sharia Vigilance Board of Directors and Smoothing cardboard	Boss Data B 110 Islamic and the Convention Al-Bank From 11 countries Application Deadline 2005 -2015	This study It was clear to me Improved Sharia Tracking Platinum Administration (SSB) Improves balance creates liquidity, but Reduced distance Balance sheet liquidity Create.

			Directors) In Islam Banks" Liquidity Create		
11	Abdeldayem, M. and Aldulaimi, S. (2022). Development of an Islamic crowdfunding campaign Model: New Innovative SME Finance Instrument Right in the middle of it.	International Journal "Organization" All analysis	Attempt And argue Islamic Краудфънди нг (ICF) Cato Alternative Financing Method of preparation Environment This is both The Islamic plural is pyme.	Watch out Interview	This study proposes an Islamic paradigm of obedient crowdfunding for donations to prizes, loans, and promotions Based on crowdfunding.
12.	Mohid, H., Norkhin, A., Anisikural, I. Fachrurrozie, F. y Jayanto, P. J. (2023). Open Innovation in Sharia Compliance in Islamic Banks: Are the Features of the Shariah Supervisory Board Important?	Vestnik na Open Innovatio n: Technolog y Market and complexit y	For scientific research Role Project characteristics Shariah Supervisory Board (SSB) for the Implementati on of Sharia Law	Panel Details Analysis	This study assumes that Banks with Great Sheriat Advice that is less in line with Sharia. The study also shows that Sharia law Economic, financial and accounting competence of members of the Board of Directors Compliance with exposure.

The researchers decided on the procedure by choosing a paper written by Lin, K.-K. et al. (2023) The search string used in the process of selecting this document was TITLE-ABS KEY ("Artificial Intelligence (AI)" OR "Independence of the Shariah Council" OR "Relevance of the Shariah Council" OR "Fintech") and PUB YEAR > 2015 AND (LIMIT-TO (PUBSTAGE,' final') AND (LIMIT-TO (DOCTYPE,'cp') OR LIMIT-TO (DOCTYPE,'ar') OR LIMIT-TO (DOCTYPE,'ch') OR LIMIT-TO (DOCTYPE, 'bk') OR LIMIT-TO (DOCTYPE, 'd') 'bk') O LIMIT-TO (DOCTYPE, 'bk') OR LIMIT-TO (DOCTYPE, 'bk') OR LIMIT-TO (DOCTYPE, 'ed') Y (LIMIT-TO (OA, 'all')). The researcher filtered them by the following criteria based on the above search criteria: About me: Islamic banks can use artificial intelligence. Keywords and Overview: The final step is to select articles that are relevant to the dataset for a given study based on keywords and abstracts. The main focus of the article: In this review, the main focus is on documents related to the impact of artificial intelligence on Islamic banking.

The meaning of this treaty is in the broad sense of Sharia, Sharia. Dowling and Pfeffer (1975) argued that the river could be applied to legal entities, while Weber (1978) argued that social norms could be used for this purpose. According to Suchman (1995), the theory of legitimacy is better known and also corresponds to the values and justice of the world. Sharia law focuses on moral policy and Sharia law. Reduction in the number of participants (Chapra, Ahmed, 2002; Dusuki, 2008; Abu-Tapenjeh, 2009; Safieddine, 2009; Todorof, 2018). Sharia, Sharia too. The Supreme Shariah Council has a fiduciary duty to ensure that all banks comply with Sharia law. However, the challenge is to strengthen the Shariah Accountability Commission to ensure the effectiveness of Sharia law (Ullah et al., 2018). Haridan et al., 2018. Mannai & Ahmed, 2019).

Head of the Shariah Council of the Islamic Bank

Islamic banks are different from older banks and adhere to Sharia law, which prohibits money laundering (usury) and speculation (gharar). Given the uniqueness of the Islamic banking sector, fintech companies should work closely with Sharia authorities to regulate Islamic affairs. It upholds the doctrine of the way and is independent of Sharia (Bougatef, 2015; Ullah et al., 2018). Todorof, 2018). Shariah financial regulators in the Council of Shariah Legalists regulate Shariah financial instruments by auditing the financial instruments of their banks (AAOIFI, 2010). Jinena, 2014. 2015, Bugatef Najib and Ibrahim, 2014. Quttainah and Almutairi, 2016. Farag et al., 2018). Indeed, it is the responsibility of the Sharia authorities to ensure that the Sharia respects the principles of independence and transparency enshrined in the Sunnah and the Quran. How:

Sharia Compliance with Islamic Bank Guarantees for Fintech

Through its integration, fintech has become a critical financial transaction and solution for Islamic banks. There is no doubt that the fintech banking sector has changed dramatically. Innovation by Islamic banks in the financial services sector depends crucially on their ability to compete in a changing market. In addition, the Fintech Direct solution is integrated with the legacy bank, which can be a simple and effective solution for Islamic banks.

Fintech is a new challenge for the Sharia legal framework, for the resolution of Islamic law,

and for establishing Sharia law for Islamic finance. The application of Sharia law to fintech products is controversial at the base. (2023) Sharia draws on various experiences and other Islamic financial disciplines from a private council to facilitate the development of Sharia-compliant products so that Islamic banks can see the advancement of fintech in the financial market.

The Importance of Artificial Intelligence for the Shariah Council: Enforcing Sharia Law

Shariah Consulting can use artificial intelligence to improve law enforcement audits. Sharia consultants can arrange for Sharia exams to be checked. This simplification has allowed the Sharia Authority to focus on in-depth investigations into Islamic banks in order to protect Sharia law. Blockchain technology supports real-time Sharia audits to identify violations and ensure compliance.

In addition to blockchain, there are larger sums and many faster increases in the capabilities of the Islamic rule of law. For a high level of safety, this is a large dose of safety. The importance of big data analytics makes Sharia advice more accessible and representative than scientifically based systems (Kwilinski, 2019). La Torre et al., 2018, 2021. Manita and others., 2020).

Sharia is used against artificial intelligence

It is immediately clear that Sharia does not allow Islamic banks to comply with Islamic law. According to Ullah et al. (2018), the management of Islamic banks wants to regulate their activities in violation of Sharia law and limit their ability to protect Sharia. It seems that Sharia law is more of a concern for bank accounts than compliance with Sharia law. Haridan et al. (2018) Governance of the Islamic banking sector in Malaysia, with many Sharia committees enacting Sharia law. Therefore, the Shariah' Parliament often recalls the Ministry of the Interior if it does not exercise control. Mannai and Ahmed (2019) interviewed 13 BWC Sharia Committees to share their concerns. The results of the investigation raise concerns about the independence of Sharia and Sharia lawyers, which could limit the effectiveness of the operation.

Fintech solutions implement Sharia law into new artificial intelligence. This is not about the legalization of halal law and Sharia haram. The financial theory of these figures emphasizes the need for Islamic bankers to apply Sharia law. When Islamic banks experiment with fintech and new financial strategies, there are many obstacles. The way to solve this problem is that data security, not IT at all. Since the number of Bitcoin and Ethereum is fixed, there is a general discussion about those related to Islam (Noordin, 2018). Depietro, 2018). While interest-bearing advances may be strictly prohibited, others are seen as an accumulation of negative monetary policy based on the investment model of active economic agents (Noordin, 2018).

Abdeldayem and Aldulaimi (2022) Sharia law is divided into four types of Muslims: prizes, grants, loans, and public services. However, Bakar, Roby, Uzaki (2017), and Mira (2018)

believe that there are not many direct links to crypto products and that there are concerns about injustices that violate Sharia law. Interestingly, there is evidence that Islamic banks are buying to support the online Bitcoin fintech industry (Oseni Ali, 2019). However, there is a shortage of talent among Sharia scholars (Garas Pierce, 2010). Najib and Ibrahim, 2014. Othman & Amir, 2015. Haridan et al. (2018) on the inclusion of fintech numbers and services for Islamic banks. Hassan et al. (2019) also note the inadequacy of national norms and Islamic and legal frameworks, as well as sharia experts. According to a 2020 study by Poon et al. among Islamic banks in Bahrain and Malaysia, the shortage of Islamic financial professionals invalidates Sharia law. Therefore, the monitoring of decision-making by the Islamic Banking Consultative Movement with the help of artificial intelligence and the implementation of Sharia law by this agency is necessary to ensure the number of financial services in Islamic finance.

Conclusion and recommendation

With the rise of Islamic banking, Islam is becoming increasingly important. With these economic changes, Islamic banks are also Islamic. Change the new financial secrecy technology that locks down the integrity of the financial services industry with artificial intelligence (AI) in Islamic finance. Blockchain integration and artificial intelligence can help Islamic leaders succeed. This technique has become understood, and the financial transaction industry is also the most important for the preservation of Islam. For example, padlocks provide information about all financial transactions, which makes it easier to track compliance with Sharia recommendations.

In addition, the Sharia government will continue to use its powers to do the same. Teaching artificial intelligence in the block is important for practitioners of Sharia and the trend of change. Support in the development of new financial technology products. The rule of law in Islam can not only support the observance of Islamic law but also develop in Islamic banking. That is why he offers himself in the Islamic way to become his karma. In the future, given the advances in artificial intelligence, there is an urgent need to reconsider the potential risks of blocking blocks in Islamic banks. Know the basics of Islamic banking and Islam, especially mathematics. The Internet is the flexibility of Islamic financial institutions, the integrity of their business, and compliance with Sharia law.

The integration of business and Islam (artificial intelligence) is a significant or long-term paradigm shift. Artificial intelligence systems that allow financial transactions to be conducted under Sharia are key to the future of scientific research. It's also important to find Sharia AI algorithms that align with the Islamic faith. It can be studied in detail with the help of the artificial intelligence theory of the Islamic jurist. The application of AI is Islamic, with no limitation of liability.

References

1. AAOIFI. (1998). Accounting and Auditing Standards for Islamic Banks and Financial Institution. Manama, Bahrain: Accounting and Auditing Standards for Islamic Financial Institutions.
2. AAOIFI. (2010). Financial Accounting Standards. Manama, Bahrain: Accounting and Auditing Organization for Islamic Financial Institutions.

3. Abdeldayem, M. and Aldulaimi, S. (2022). Developing an Islamic crowdfunding model: A new innovative mechanism to finance SMEs in the Middle East. *International Journal of Organizational Analysis*, Vol. ahead-of-print No. ahead-of-print.
4. Abedifar, P. (2019). Lending, the poor, and Islamic scripture: Islamic finance versus welfare Islam. *Journal of the American Academy of Religion*, 87(2), pp. 460-482
5. Abedifar, P., Ebrahim, S.M., Molyneux, P. and Tarazi, A. (2015). Islamic banking and finance: Recent empirical literature and directions for future research. *Journal of Economic Surveys*, 29(4), pp. 637- 670.
6. Abu-Tapanjeh, A. M. (2009). Corporate governance from the Islamic perspective: A comparative analysis with OECD Principles. *Critical Perspectives on Accounting*, 20, pp. 556-567.
7. *Academy of Accounting and Financial Studies Journal*, 23, pp. 1-6.
8. *Academy of Management Review*, 20, pp. 571-610.
9. Ahamed, M. M., Mallick, S. K. (2019). Is financial inclusion good for bank stability? *International evidence. Journal of Economic Behavior & Organization*, 157, pp. 403-427
10. Ahmed, F., Ali, Z., Khan, M. S., & Mullazai, M. (2023). A syntactic analysis of compound noun phrase of Balochi within the perspective of X-bar theory. *International Research Journal of Management and Social Sciences*, 4(3), 289-304.
11. Alshater, M. M., Saba, I., Supriani, I. and Rabbani, M. R. (2022). Fintech in islamic finance literature: A review. *Heliyon*, 8(9), p. 10385.
12. Bakar, N.A., Rosbi, S. and Uzaki, K. (2017). Cryptocurrency framework diagnostics from Islamic finance perspective: A new insight of bitcoin system transaction. *International Journal of Management Science and Business Administration*, 4(1),
13. Banna, H., Hassan, M. K. and Rashid, M. (2021). Fintech-based financial inclusion and bank risk taking: Evidence from OIC countries. *Journal of International Financial Markets, Institutions & Money*, 75, p. 101447
14. Bougatef, K. (2015). The impact of corruption on the soundness of Islamic banks. *Borsa Istanbul Review*.
15. Bukht, T.F.N., Raza, M.A., Awan, J.H. and Ahmad, R. (2020). Analyzing cyber-attacks targeted on the Banks of Pakistan and their Solutions. *International Journal of Computer Science and Network Security*, 20(2). *Bulletin of Monetary Economics and Banking*, 20(4), pp. 475-492
16. Chapra, M. U. and Ahmed, H. (2002). Corporate governance in Islamic financial institutions. *Islamic Development Bank: Islamic Research and Training Institute*.
17. Chong, F. H. L. (2021). Enhancing trust through digital Islamic finance and blockchain technology. *Qualitative Research in Financial Markets*, 13(3), pp. 328-341
18. Daud, S. N. M., Ahmad, A. H., Khalid, A. and Azman-Saini, W. N. W. (2022). FinTech and financial stability: Threat or opportunity?. *Finance Research Letters*, 47, p. 102667
19. De Bakker, F. G. A., Rasche, A. and Ponte, S. (2019). Multi-Stakeholder Initiatives on Sustainability: A Cross-Disciplinary Review and Research Agenda for Business Ethics. *Business Ethics Quarterly*, 29(3), pp. 343-383.
20. Depietro, A. (2018). Blockchain and Islamic banking are working together, and everyone stands to benefit. *The Forbes*. Retrieved from <https://www.forbes.com/sites/andrewdepietro/2018/07/11/blockchain-islamic-banking-benefits/?sh=3586da383af2>
21. Dowling, J. and Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, 18, pp. 122-36.
22. Dusuki, A. W. (2008). Understanding the objectives of Islamic banking: A survey of stakeholders' perspectives. *International Journal of Islamic and Middle Eastern Finance and Management*, 1 (2), pp. 132-148.
23. Farag, H., Mallin, C. and Ow-Yong, K. (2018). Corporate governance in Islamic banks: New insights

- for dual board structure and agency relationships. *Journal of International Financial Markets Institutions and Money*, 54, pp. 59-77.
24. Feghali, K., Mora, N., Nassif, P. (2021). Financial inclusion, bank market structure, and financial stability: International evidence. *The Quarterly Review of Economics and Finance*, 80, pp. 236-257
 25. Garas, S. N. and Pierce, C. (2010). Shari'a supervision of Islamic financial institutions.
 26. Ginena, K. (2014). Shariah risk and corporate governance of Islamic banks. *Corporate Governance: The International Journal of Business in Society*, 14(1), pp. 86-103.
 27. Ginena, K. and Hamid, A. (2015). Foundations of Shari'ah Governance of Islamic Banks.
 28. Haridan, N. F. M., Hassan, A. F. S. and Karbhari, Y. (2018). Governance, religious assurance and Islamic banks: Do Shariah boards effectively serve? *Journal of Management and Governance*, 22(4), pp. 1015- 1043
 29. Haridan, N. M., Hassan, A.F. S., Shah, S. M. and Mustafa, H. (2023). Financial innovation in Islamic banks: Evidence on the interaction between Shariah board and FinTech. *Journal of Islamic Accounting and Business Research*, 14(6), pp. 911-930.
 30. Hassan, M. K., Aliyu, S., Huda, M. and Rashid, M. (2019). A survey on Islamic finance and accounting standards. *Borsa Istanbul Review*, 19, pp. S1-S13
 31. Hassan, M. K., Khan, A. and Paltrinieri, A. (2019). Liquidity risk, credit risk and stability in Islamic and conventional banks. *Research in International Business and Finance*, 48, pp. 17-31.
 32. IFSB-9. (2009). Guiding Principles on Conduct of Business for Institutions Offering Islamic Financial Services. Islamic Financial Services Board.
 33. *Journal of Financial Regulation and Compliance*, 18(4), pp. 386-407
 34. Khan, M. S., Ali, Z., Burlea-Sciopiu, A., Ilyas, M., Shaikh, M. A., & Malik, M. K. (2024). Integrative Approaches To Complex Optimization: Stochastic Simulation, Multi-Criteria Fuzzy Decision Making, Super Economics, And The Interface Of Mathematical Economics And Nanotechnology. *Kurdish Studies*, 12(3), 311-325.
 35. Khan, M. S., Rahpoto, M. S., & Mangnejo, G. M. (2020). The effect of the financial crisis on corporal well-being: Apparent impact matters: Assessment of contagion to developing economies. *Research Journal of Social Sciences and Economics Review*, 1(3), 232-238.
 36. Khan, M. S., Rahpoto, M. S., & Talpur, U. (2021). The effect of the financial crisis on corporal well-being: Apparent impact matters. In *Internet of Everything and Big Data* (pp. 25-34). CRC Press.
 37. Khoso, A. A. K., Pathan, M. S. K., & Ahmed, M. (2022). Exploring the impacts and aftershocks of COVID-19 on Islamic banking and conventional banking in Pakistan. *International Research Journal of Management and Social Sciences*, 3(1), 179-192.
 38. Khoso, A. A., & Pathan, M. S. K. (2021). The role of Islamic banking industry in the perspective of global financial sector and its impact in Pakistan's economic growth. *International Research Journal of Education and Innovation*, 2(2), 81-91.
 39. Khoso, A. A., & Pathan, M. S. K. (2023). The mediating role of job satisfaction in the relationship between organizational culture and employee commitment in Islamic banking. *International Research Journal of Management and Social Sciences*, 4(2), 13-30.
 40. Khoso, A. A., Ahmed, M., & Pathan, M. S. K. (2022). Customer satisfaction standards according to Islamic and conventional banking system in Pakistan. *International Research Journal of Education and Innovation*, 3(2), 185-194.
 41. Khowaja, I. A., Talpur, U., Soomro, S. H., & Khan, M. S. (2021). The non-banking financial institutions in perspective of economic growth of Pakistan. *Applied Economics Letters*, 28(8), 701-706.
 42. Koulu, R. (2016). Blockchains and online dispute resolution: Smart contracts as an alternative to enforcement. *Journal of Law, Technology & Society*, 13(1), pp. 40- 69.
 43. Kwilinski, A. (2019). Implementation of blockchain technology in accounting sphere.
 44. La Torre, M., Botes, V.L., Dumay, J. and Odendaal, E. (2021). Protecting a new Achilles heel: The role of auditors within the practice of data protection. *Managerial Auditing Journal*, 36(2), pp. 218-

- 239.
45. La Torre, M., Dumay, J. and Rea, M.A. (2018). Breaching intellectual capital: Critical reflections on big data security. *Meditari Accountancy Research*, 26(3), pp. 463- 482.
46. Laldin, M. A. and Djafri, F. (2019). Islamic Finance in The Digital World: Opportunities and Challenges (Kewangan Islam dalam Dunia Digital: Peluang dan Cabaran). *Journal of Islam in Asia* (E-ISSN 2289- 8077), 16(3), pp. 283-299.
47. Lee, I. and Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, 61 (1), pp. 35-46.
48. Lin, C.-C.; Huang, A.Y.Q.; Yang, S.J.H. (2023) A Review of AI-Driven Conversational Chatbots Implementation Methodologies and Challenges (1999–2022). *Sustainability*, 15, 4012. [https://doi.org/ 10.3390/su15054012](https://doi.org/10.3390/su15054012)
49. Manita, R., Elommal, N., Baudier, P. and Hikkerova, L. (2020). The digital transformation of external audit and its impact on corporate governance. *Technological Forecasting and Social Change*, 150.
50. Mannai, M. A. and Ahmed, H. (2019). Exploring the workings of Shari'ah supervisory board in Islamic finance: A perspective of Shari'ah scholars from GCC. *The Quarterly Review of Economics and Finance*, 74, pp. 97-108.
51. Meera, A.K.M. (2018). Cryptocurrencies from Islamic perspectives: The case of bitcoin.
52. Memon, A., & Khan, M. S. (2019). Industry academia linkages of Jamshoro universities: The case of University of Sindh, Mehran University of Engineering and Technology & Liaquat University of Medical and Health Sciences. *Mediterranean Journal of Basic and Applied Sciences (MJBAS)*, 3(3), 13-52.
53. Mollah, S. and Zaman, M. (2015). Shari'ah supervision, corporate governance and performance: Conventional vs. Islamic banks. *Journal of Banking & Finance*, 58,
54. Muedini, F. (2018). The compatibility of cryptocurrencies and Islamic finance. *European Journal of Islamic Finance*, 10, pp. 1-10.
55. Muhammad, S. K. P. (2023). The influence of organizational culture on employee commitment and turnover intentions: A study of the importance of positive culture for retaining employees. *Global Research Journal of Management and Social Sciences (GRJMSS)*, 1(1), 85-94.
56. Mukhibad, H., Nurkhin, A., Anisykurlillah, I., Fachrurrozie, F. and Jayanto, P. Y. (2023). Open innovation in shariah compliance in Islamic banks – Does shariah supervisory board attributes matter?. *Journal of Open Innovation: Technology, Market, and Complexity*, 9, p. 100014
57. Mullazai, M., Ali, Z., Khan, M. S., & Ahmed, F. (2023). Agent and theme theta roles in Balochi: A morphosemantic analysis. *International Research Journal of Management and Social Sciences*, 4(3), 332-347.
58. Najeeb, S. F. and Ibrahim, S. H. M. (2014). Professionalizing the role of Shariah auditors: How Malaysia can generate economic benefits. *Pacific-Basin Finance Journal*, 28, pp. 91-109.
59. Noordin, K.A. (2018, September 6). Islamic finance: Is cryptocurrency halal? *The Edge Market*. Retrieved from <https://www.theedgemarkets.com/article/islamic-finance-cryptocurrency-halal>.
60. Oseni, U.A. and Ali, S.N. (2019). *Fintech in Islamic Finance: Theory and Practice*. (1st ed). London: Taylor and Francis Group.
61. Oseni, U.A. and Omoola, S.O. (2015). Banking on ICT: The relevance of online dispute resolution in the Islamic banking industry in Malaysia. *Information & Communications Technology Law*, 24(2), pp. 205-223.
62. Othman, R. and Ameer, R. (2015). Conceptualizing the duties and roles of auditors in Islamic financial institutions: What makes them different? *Humanomics*, 31(2),
63. Pathan, M. S. K. (2022). The impact of emotional intelligence on leadership effectiveness. *International Research Journal of Management and Social Sciences*, 3(3), 1-7.
64. Pathan, M. S. K. (2022). The influence of organizational culture on employee commitment and turnover intentions. *International Research Journal of Management and Social Sciences*, 3(4), 34-

- 43.
65. Pathan, M. S. K. (2023). Assessing the mediating role of job satisfaction in the relationship between organizational culture and employee commitment. *International Research Journal of Education and Innovation*, 4(1), 1-11.
66. Pathan, M. S. K., & Khoso, A. A. (2023). Misfortune tragedy findings in Pakistan: A public learning perspective on virtue of economic recovery mindset. *International Research Journal of Management and Social Sciences*, 4(2), 1-12.
67. Pathan, M. S. K., Khoso, A. A., & Ahmed, M. (2022). Digital model anecdotes through artificial intelligence in socioeconomic and Islamic investments. *International Research Journal of Education and Innovation*, 3(2), 195-209.
68. Pathan, M. S., Ahmed, M., & Khoso, A. A. (2022). Islamic banking under vision of green finance: The case of development, ecosystem and prospects. *International Research Journal of Management and Social Sciences*, 3(1), 193-210.
69. Poon, J., Chow, Y. W., Ewers, M. and Ramli, R. (2020). The role of skills in Islamic financial innovation: Evidence from Bahrain and Malaysia. *Journal of Open Innovation: Technology, Market, and Complexity*, 6, p. 47;pp. 1-17;pp. 19-28;pp. 201-213;pp. 418-435.
70. Quttainah, M.A. and Almutairi, A.R. (2016). Corporate ethics: evidence from Islamic banks. *Journal of Management and Governance*.
71. Rahat, S., & Pathan, M. S. K. (2021). Sustainable climate approach and in context of environment economy: A classical analyze matters. *Neutron*, 21(1), 40-45.
72. Safieddine, A. (2009). Islamic financial institutions and corporate governance: New insights for agency theory. *Corporate Governance: An International Review*, 17(2), pp. 142-158.
73. Safiullah, M., Hassan, M. K. and Kabir, M. N. (2022). Corporate governance and liquidity creation nexus in Islamic banks—Is managerial ability a channel?. *Global Finance Journal*, 51.
74. Sidaoui, M., Ben Bouheni, F., Arslankhuyag, Z. and Mian, S. (2022). Fintech and Islamic banking growth: New evidence. *Journal of Risk Finance*, 23(5), pp. 535-557.
75. Suchman, M. C. (1995). Managing legitimacy: strategic and institutional approaches.
76. Tajudin, M., Omar, R., Smedlund, A., Aziz, R. P. (2020). Financing with heart and intelligence: Augmenting intimacy and sustainability through Islamic fintech. *International Journal of Advanced Science and Technology*, 29(9s), pp. 1638- 1664.
77. The Wiley Finance Series.
78. Todorof, M. (2018). Shariah-compliant FinTech in the banking industry. *ERA Forum*, 19,
79. U.S. Securities and Exchange Commission. (2022). SEC charges robo-adviser with misleading clients, February 10, available at: <https://www.sec.gov/news/press-release/2022-24>.
80. Ullah, S., Harwood, I. A. and Jamali, D. (2018). 'Fatwa repositioning': The hidden struggle for Shari'a compliance within Islamic financial institutions. *Journal of Business Ethics*, pp. 1-23.
81. Weber, M. (1978). *Economy and society*. Berkeley: University of California Press.
82. Xuesong Zhai, Xiaoyan Chu, Ching Sing Chai, Morris Siu Yung Jong, Andreja Istenic, Michael Spector, Jia-Bao Liu, Jing Yuan, Yan Li, (2021) "A Review of Artificial Intelligence (AI) in Education from 2010 to 2020", *Complexity*, vol. 2021, Article ID 8812542, 18 pages, 2021. <https://doi.org/10.1155/2021/8812542>.
83. Yudaruddin, R. (2023). Financial technology and performance in Islamic and conventional banks. *Journal of Islamic Accounting and Business Research*, 14(1), pp. 100-116.