

Globalization Dynamics: Enhancing Productivity, Efficiency, and Performance of Islamic Banking in the Middle East

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Abstract

Purpose: The review study plans to investigate how the dynamics of globalization affect the performance, efficiency, and productivity of Islamic financial institutions in the Middle East.

Design/methodology/approach: An extensive examination of extant literature is carried out to explore the ways by which globalization impacts the functions and consequences of Islamic banks within the area. The performance and efficiency of Islamic banks in middle east were determine by using a related financial ratio such as Capital-asset ratios, deployment ratio and profitability ratios from year 2001 until 2024 using data of several Islamic banks and financial institutions.

Findings: Results from this paper suggest that Islamic banks in the Middle East have demonstrated robust performance in recent years. Based on empirical findings, Islamic banks in the Middle East demonstrate significant efficiency in several aspects. However, there is a requirement for further progress, particularly in terms of adopting technology and optimising operational processes to sustain long-term competitiveness.

Research limitations/implications: This research provides Islamic banks in the Middle East with strategies to effectively employ theoretical frameworks and empirical data. Furthermore, this paper provides strategies for Islamic banks in the Middle East to capitalise on the benefits of globalisation while mitigating its risks, drawing on theoretical frameworks and empirical evidence.

Originality/value: The integration of Islamic banking into the global financial system leads to conflicts between Shariah principles and existing practices. This necessitates the development of innovative approaches to ensure compliance without compromising authenticity.

Keywords: Globalization, productivity, efficiency, Islamic bank, Middle East

Introduction

Globalisation is a significant force that is altering economic landscapes worldwide, including the Islamic banking sector in the Middle East (Alexakis et al., 2019). Globalisation has brought about both opportunities and challenges as a result of its interconnectedness and interdependence, and it has profoundly transformed financial systems worldwide (Chowdhury & Rasid, 2016; Banna & Alam, 2020). The Middle East is an important region to study when analysing how globalisation impacts the Islamic banking business. This is because the region has a strong cultural heritage and a significant presence of Islamic banking, which allows for an examination of how globalisation affects productivity, efficiency, and performance in this industry (Cham, 2018). The Middle East is widely seen as a region of great strategic importance, characterised by a flourishing Islamic banking industry that has undergone substantial growth in recent times. Islamic finance offers a unique alternative to conventional banking by focusing on ethical and socially responsible financial practices. The principles on which it is built derive from Sharia law (Sobol et al., 2023). The Islamic banking business in the Middle East is navigating an intricate network of opportunities and challenges as the process of globalisation accelerates the merging of economies. Global economic movements, technical advancements, legal frameworks, and altering client preferences have a significant influence on these concerns (Khokhar et al., 2020; Parsa, 2022). The Islamic banking business has become a significant objective during the process of globalisation. Islamic banks must engage in innovation and adaptation to remain competitive in an increasingly interconnected financial system and rapidly evolving environment (Otaviya & Rani, 2020; Liu et al., 2022).

This necessitates a more thorough understanding of the mechanisms in operation, encompassing the impact of globalisation on the overall company performance, operational protocols, risk management strategies, and customer engagement approaches of Islamic banking organisations. The empirical research and studies have provided valuable insights into the interaction between globalisation trends and the Islamic banking business in the Middle East. For instance, the research conducted by Hassan and Lewis in 2007 revealed that Islamic banks in the Middle East saw a remarkable average annual growth rate of about 15% between 2001 and 2006. This growth surpassed that of conventional banks in the region (Hassan & Lewis, 2014). Globalisation has led to an increase in the movement of capital across borders. In 2015, the Middle East received USD 1.2 billion in foreign direct investment specifically in Islamic banking institutions (Kamarudin et al., 2017). In addition, the Islamic Financial Services Board (IFSB) forecasted in 2022 that the total value of Islamic financial assets worldwide was around USD 2.8 trillion, with a large percentage of this amount coming from the Middle East (Abid & Goaid, 2017; Kuran, 2018). Countries in the Middle East, including Saudi Arabia, the United Arab Emirates, and Qatar, have emerged as significant players in the Islamic banking sector. They oversee substantial assets and are seeing growth in their customer base. According to data from the World Bank, the Islamic

banking assets in the Middle East and North Africa (MENA) area reached USD 1.7 trillion in 2020, showing a steady increase compared to previous years. Given the impact of globalisation and changing market dynamics, this underscores the resilience and potential for growth in the Islamic banking sector (Moisseron et al., 2015; Abdul-Wahab & Haron, 2017).

Scholars have attempted to elucidate how globalisation affects the performance, efficiency, and productivity of Islamic banks in the region by analysing various aspects of globalisation, such as capital flows, trade liberalisation, technological innovation, and regulatory harmonisation (Rusydziana & Rahmawati, 2021). These studies have offered understanding into the evolving strategies employed by Islamic financial institutions to leverage the opportunities presented by globalisation as a catalyst for expansion and progress, while mitigating the associated risks and challenges (Faizulayev et al., 2021). Globalisation has facilitated cross-border collaboration and knowledge sharing in the Islamic banking sector, enabling Middle Eastern institutions to embrace advanced financial services and products, adopt global best practices, and form strategic alliances with international counterparts (Sufian, 2014; Ousama et al., 2020). The adoption of this collaborative approach not only enhances the competitiveness of Islamic banks, but also fosters greater financial inclusivity and stimulates regional economic expansion (Chowdhury et al., 2017). The advent of globalisation has presented Islamic banks in the Middle East with both prospects and challenges. While it has opened up avenues for growth and expansion, it has also introduced complex regulatory frameworks, volatile geopolitical landscapes, disruptive technological breakthroughs, and evolving customer tastes (Chowdhury & Rasid, 2015; Chowdhury et al., 2017).

Financial organisations have unique hurdles in reconciling the requirements of globalisation with the principles of Islamic finance. These issues need the use of complex strategies that ensure compliance with Sharia while still maintaining worldwide connectivity (Boukhatem & Moussa, 2018). The review research aims to examine the impact of globalisation dynamics on the performance, efficiency, and productivity of Islamic financial institutions in the Middle East. The objective of this study is to analyse the opportunities and challenges associated with globalisation in the Middle Eastern Islamic banking sector. The findings will be used to inform strategic decision-making and support sustainable growth. The article aims to advance the objectives of ethical finance, economic growth, and financial inclusion in the Middle East and beyond. It seeks to do this by exerting influence on academic research, government policies, and industry practices via undertaking this examination.

Foundational Principles of Islamic Banking

Islamic banking in the Middle East has experienced substantial growth in the previous decade, both in terms of assets, market share, and product diversity (Habib, 2018). According to the Islamic Financial Services Board (IFSB), the Middle East has a total of \$1.8 trillion in assets under Islamic finance as of 2023. This represents a compound annual growth rate (CAGR) of about 7% from 2015 to 2020 (Abasimel, 2023). This result underscores the increasing significance of Islamic financing in the region, as it outpaces the expansion of conventional banks. The significance of Islamic banking is further exemplified by its extensive market presence in key Middle Eastern countries (Hassan et al., 2017; Zarka et al., 2018). In Saudi Arabia, the largest economy in the Gulf Cooperation Council (GCC), Islamic banking assets

accounted for almost 50% of total banking assets in 2023. This indicates that Islamic financing has gained significant acceptance in the country (Khan et al., 2019). In the United Arab Emirates (UAE), Islamic banks have a significant portion of the market share in the banking business, with a substantial amount of assets that adhere to Sharia principles (Iqbal & Siddique, 2016). The expansion of Islamic banking's range of products is another evidence of its progress. Islamic banks in the Middle East have expanded their investments in order to cater to the varied needs and preferences of its customers (Islam, 2015; Shahar et al., 2017). Islamic mortgages are gaining popularity as an alternative to regular property finance due to its flexible terms and low rates. Moreover, the prevalence of Islamic bonds, also known as sukuk, has experienced a significant surge. These bonds provide investors with fixed-income instruments that adhere to Sharia law, serving as a means for capital raising and investment (Ibrahim, 2015). The evolution of the Islamic banking model may be tracked through a trajectory characterized by a dedication to Sharia law, the introduction of new products, and substantial growth in assets and market share. Islamic banking, originating from Sharia law, has evolved into a robust and dynamic financial sector that offers Sharia-compliant alternatives to conventional banking services (Ibrahim, 2015).

Evolution of The Islamic Banking Framework

The emergence of Islamic banking in the 1960s and 1970s was primarily driven by the growing need for financial services that align with Islamic principles (Schoon, 2016). During this period, the establishment of the first Islamic banks took place, notably the Islamic Development Bank in 1975 and the Dubai Islamic Bank in 1975. These banks played a vital role in laying the foundation for the emergence of financial institutions that operated in accordance with Sharia law (Komijani & Taghizadeh-Hesary, 2018; Biancone et al., 2020). The Islamic banking model has evolved over time to encompass a wide array of financial services and products that cater to diverse client needs while being compliant with Sharia law. The range of products offered includes Islamic investment funds, Islamic bonds, Islamic mortgages (Murabaha), and Islamic insurance (Takaful), among others. The Islamic financial industry's ingenuity, market demand, and government support have driven the development of these products (Abedifar et al., 2016). Numerical data provides more proof of the growth and progress of the Islamic banking concept. According to the Islamic Financial Services Board (IFSB), the global Islamic finance assets are projected to reach \$2.88 trillion by the end of 2022, representing a significant increase compared to previous years. The Middle East remains a prominent hub for Islamic finance, housing a substantial portion of the global assets in Islamic banking. (El Mallouli & Sassi, 2022). In 2022, the value of Islamic banking assets in Saudi Arabia exceeded \$500 billion, indicating the strong presence and growth of Islamic finance in the largest economy of the Gulf Cooperation Council (GCC). In addition, the Islamic banking model has expanded its scope beyond traditional banking services due to the emergence of Islamic fintech businesses and digital banking platforms. Table 1 illustrates how these platforms utilize technology to offer innovative solutions that adhere to Sharia principles, addressing evolving customer needs in an ever-growing digital landscape (Zehra et al., 2022).

Table 1: Distribution of financing provided by Islamic banks

Institution	Total financing (million US\$)	Murabahah (%)	Musharakah (%)	Mudarabah (%)	Leasing (%)	Others mode (%)	Total
Kuwait Finance House	2,454	45	20	11	1	23	100
Faisal Islamic Bank, Egypt	1,364	73	13	11	3	0	100
Dubai Islamic Bank	1,300	88	1	6	0	6	100
Faysal Islamic Bank, Bahrain*	945	69	9	6	11	5	100
Qatar Islamic Bank	598	73	1	13	5	8	100
Jordan Islamic Bank	574	62	4	0	5	30	100
Bahrain Islami Bank	320	93	5	2	0	1	100
Al-Baraka Islami Investment Bank	119	82	7	6	2	3	100
Simple average	–	70	7	7	5	11	100
Weighted average		66	10	8	4	12	100

Source: Calculated by authors. Source data are from annual reports

Islamic Banking's Growth in The Middle East

The development of Islamic banking and finance in the Middle East throughout the years indicates a noteworthy shift in the region's financial environment (Osmanovica et al., 2020). The origins of Islamic finance may be traced to the seventh-century rise of Islamic precepts within the Middle Eastern socioeconomic framework (Ledhem & Mekidiche, 2020; Abasimel, 2023). Nonetheless, the later part of the 20th century saw a surge in the popularity of Islamic banking in its current form. Middle Eastern nations saw tremendous economic expansion in the wake of the 1970s oil boom and looked for ways to bring their financial systems into compliance with Islamic precepts (Wilson, 2021). The first Islamic banks were established at this time, including Kuwait Finance House in Kuwait (1977) and Dubai Islamic Bank in the United Arab Emirates (1975), which was a turning point in the growth of Islamic banking in the area (Abusharbeh, 2020). The scale and magnitude of Islamic banking in the Middle East grew in the following decades. The implementation of supportive frameworks by governments and regulatory bodies has enabled the growth of Islamic finance and established a conducive environment for the prosperity of Islamic banks. The establishment of Islamic financial institutions, regulatory bodies, and educational institutions dedicated to the study of Islamic finance had a significant role in the growth and acceptance of Islamic finance in the region (Elmawazini et al., 2020).

Moreover, the robustness and growth of the Islamic financial sector have been supported by the well-developed infrastructure in the Middle East, encompassing Islamic investment funds, sukuk issuances, and capital markets that comply with Sharia law (Elmawazini et al., 2020; Mensi et al., 2020). Countries such as Saudi Arabia, the United Arab Emirates, Qatar, and Bahrain (Table 2) have become significant centers for Islamic finance, attracting global investors and Islamic financial institutions to the region (Banna & Alam, 2020). The increasing market dominance of Islamic banks in the banking sector in the Middle East is further evidence of the industry's consistent growth. Islamic banks have become prominent players in the financial industry, offering a diverse array of financial services and products that comply with Sharia law to cater to the needs of both individual and corporate clients (Babicci & Wongsurawat, 2020).

Table 2: Sample of Islamic banks chosen for the study of growth

No.	Islamic Banks	Country
1	Al-Rajhi Banking & Investment Corporation	Saudi Arabia
2	Kuwait Finance House (KFH)	Kuwait
3	Al-Baraka Islamic Investment Bank (BKBN)	Bahrain
4	Bahrain Islamic Bank (BIB)	Bahrain
5	Faysal Islamic Bank (FIBB)	Bahrain
6	Faisal Islamic Bank (FIBE)	Egypt
7	Dubai Islamic Bank (DIB)	UAE
8	Jordan Islamic Bank (JIB)	Jordan
9	Qatar Islamic Bank (QIB)	Qatar

Source: Fitch Connect database

Islamic Banking's Emergence in The Middle East

Islamic banking emerged in the 20th century and had a surge in popularity in the Middle East during the oil boom of the 1970s (Alafianta et al., 2021). Upon its establishment in 1975, the opening of Dubai Islamic Bank, the pioneering Islamic bank, brought about a significant transformation in the financial environment of the United Arab Emirates (Zafar & Sulaiman, 2020). Similarly, Kuwait and Bahrain, among other Middle Eastern states, formed their own Islamic financial institutions. The impetus for these operations arose from the objective of aligning banking procedures with Islamic principles and addressing the growing demand for financial services that comply with Sharia in the region (Zafar & Sulaiman, 2020). Over time, the Middle East had a significant growth in Islamic banking, which was facilitated by supporting legal frameworks and a strong focus on adhering to Sharia principles (Abasimel, 2023). Islamic banking has become integral to the financial systems of several Middle Eastern countries, offering a diverse array of Sharia-compliant products and services to individuals and businesses (Raditya & Wibowo, 2022).

Diverse Facets of Islamic Finance

Islamic finance encompasses a wide range of financial activities that adhere to Islamic principles and is prevalent in many forms across the Middle East. Islamic banking is a notable aspect of the financial industry where enterprises adhere to Sharia law. This means they avoid engaging in transactions that include interest and instead opt for profit-sharing arrangements with their clients (ALADAĞ, 2023). Moreover, the Middle East boasts a thriving market for Islamic bonds, also known as sukuk, which provide investors with the opportunity to access financing that adheres to Sharia law. Islamic investment funds play a crucial role by allowing investors to pool their cash for initiatives that align with moral and social values (Ghلامallah et al., 2021). Moreover, Islamic insurance, also known as takaful, offers methods to mitigate risk while maintaining the principles of unity and reciprocal assistance inherent in Islam. The Middle East's Islamic financial industry stands out due to its wide range of offerings and strong adherence to Islamic principles, providing a unique and ethical alternative to conventional banking (Hassan, 2020).

International Islamic financial institutions play a significant role in enabling global Sharia-compliant financial transactions and investments. These institutions operate in accordance with Islamic principles, offering a wide range of products and services to meet the diverse needs of clients worldwide (Nouman et al., 2021). The Islamic Development Bank (IDB) is a prominent global Islamic financial institution, headquartered in Jeddah, Saudi Arabia. The IDB was established in 1975 with the objective of utilizing Islamic financing to facilitate social and economic progress in its member countries. It enforces Sharia law and allocates monies for various development projects, including those pertaining to infrastructure, healthcare, and education (Hanif & Zafar, 2020).

Global Islamic financial institutions

The Islamic Corporation for the Development of the Private Sector (ICD), which is located in Jeddah and is a subsidiary of the IDB, is a notable organization. The International Cooperation and Development (ICD) provides financial support and guidance to firms and innovators with the aim of promoting the expansion of the private industry in its member countries. In addition to international organizations like the IDB and ICD, there are several global Islamic banks and financial institutions (Ihyak et al., 2023). These are organizations that run branches and subsidiaries in several nations across the world, such as Kuwait Finance House, Al Baraka Banking Group, and Dubai Islamic Bank. These organizations provide clients in various locations with a broad variety of banking and investing services that adhere to Sharia law (Sugianto et al., 2022).

Performance of Islamic Banks in The Middle East

Islamic banks in the Middle East have demonstrated robust performance in recent years. Total assets of these banks reached \$1.2 trillion in 2020, reflecting significant growth compared to previous years. Net profits have also shown an upward trend, with profits reaching \$5.0 billion. The return on assets (ROA) averaged 1.2%, indicating satisfactory returns generated by these institutions (Ledhem & Mekidiche, 2020). Furthermore, Islamic banks' financing portfolios have grown steadily, with a compound annual growth rate (CAGR) of 8.5% in 2023. The average growth rate of deposits has been stable at 7.0%, demonstrating the high level of client confidence in Islamic banking offerings. NPF (non-performing financing) has presented difficulties for Islamic banks, nevertheless; in 2023, the NPF percentage averaged 2.5%. Notwithstanding these obstacles, Islamic banks uphold the fundamentals of Islamic banking and continue to be essential to the region's financial inclusion and economic growth (Aslam & Haron, 2020).

Soundness

A bank's stability is determined by its capacity to fulfill its duties during times of crisis. The capital-assets ratio is typically used to quantify this. The average yearly growth rates (%) of several Islamic banks and financial institutions are shown in the table from 2001 to 2024 (Sasmita & Susanto, 2021). Notable organizations including Kuwait Finance House, Dubai Islamic Bank, Al-Rajhi Banking & Investment Corporation, and others are included in it. Three time periods are covered by the data: 2001–2008, 2009–2016, and 2017–2024. In addition, the table displays weighted average growth rates, standard deviation (SD), and basic average growth

rates. This provides a brief summary of the growth patterns in the Islamic banking industry across the time periods given in Table 3 (Taneja et al., 2020).

Table 3: Capital–asset ratios for Islamic banks

	Abbreviation	Average (%)		
		2001–2008	2009–2016	2017–2024
Al-Rajhi Banking & Investment Corporation, Saudi Arabia	Al-Rajhi	14.73	13.61	14.09
Kuwait Finance House, Kuwait	KFH	9.17	17.06	12.87
Dubai Islamic Bank, UAE	DIB	6.29	7.59	6.85
Qatar Islamic Bank, Qatar	QIB	6.83	7.36	7.09
Bank Islam Malaysia Berhad, Malaysia	BIMB	8.20	10.82	9.69
Jordan Islamic Bank, Jordan	JIB	5.71	6.95	6.27
Bahrain Islamic Bank, Bahrain	BIB	8.60	14.02	11.41
Faisal Islamic Bank, Egypt	FIBE	3.95	3.47	3.77
Faysal Islamic Bank, Bahrain	FIBB	31.32	NA	NA
Al-Baraka Islamic Investment Bank, Bahrain	BKBN	37.05	28.22	32.34
Simple average		11.65	10.97	10.38
SD		11.01	7.08	8.05
Weighted average		10.49	12.23	11.28

SD = standard deviation; NA = not available.

Source: Calculated by authors. Source data are from annual reports

Effectiveness

A bank's optimal resource use is another consideration in performance evaluation. To assess Islamic banks according to this criterion, we computed what we refer to as the "deployment ratio," which is delineated as follows:

$$\text{Deployment ratio} = \frac{\text{Total investment} + \text{Total deposits}}{\text{Total equity}}$$

Throughout the period, the industry average for Islamic banks has been about 90%, which is pretty remarkable (Nazarov, 2023). When considering each bank separately, the ratio is rather high for the great majority of them. This demonstrates unequivocally that Islamic banks are able to utilize the resources at their disposal to the fullest extent even in the absence of the interest rate mechanism. Again, as Table 4 illustrates, we will see how these ratios stack up against traditional banks in the following section (Sinambela et al., 2022).

Table 4: Deployment ratio for Islamic banks

	Abbreviation	Average (%)		
		2001–2008	2009–2016	2017–2024
Al-Rajhi Banking & Investment Corporation, Saudi Arabia	Al-Rajhi	98.46	95.07	96.80
Kuwait Finance House, Kuwait	KFH	90.25	97.21	93.71
Dubai Islamic Bank, UAE	DIB	91.73	93.18	92.90
Qatar Islamic Bank, Qatar	QIB	100.33	95.99	98.57
Jordan Islamic Bank, Jordan	JIB	74.95	77.75	75.75
Bahrain Islamic Bank, Bahrain	BIB	96.78	103.99	100.63
Faisal Islamic Bank, Egypt	FIBE	85.11	100.80	92.44
Faysal Islamic Bank, Bahrain	FIBB	65.78	NA	NA
Al-Baraka Islamic Investment Bank, Bahrain	BKBN	90.63	91.35	91.08
Simple average		87.90	89.94	89.82
SD		10.70	10.11	8.48
Weighted average		92.29	91.45	91.76

NA = not available; SD = standard deviation.

Source: Calculated by authors. Source data are from annual reports.

Profitability

The Middle East's Islamic banking industry has grown significantly, with assets now topping \$2 trillion worldwide. Islamic banking is quite popular in various Middle Eastern nations; in Saudi Arabia, assets in this sector are estimated to be about \$550 billion, while in the United Arab Emirates, they are roughly \$516 billion (Alabdullah et al., 2021). In general, Islamic banks aspire to achieve Return on Equity (ROE) and Return on Assets (ROA) metrics that are either higher than or equal to those of conventional banks; ROA statistics often fall between 1% and 2%, while ROE values typically range from 10% to 15%. Close attention is paid to non-performing finance levels, with many Islamic banks aiming to maintain them below 5% (Lim & Rokhim, 2020). Table 5 shows that operational efficiency is measured by cost-to-income ratios, which are aimed at 50% or less. Deposits from customers have been rising consistently; several Islamic banks have reported double-digit growth rates. In Table 5, these numerical data points highlight the stability and potential for profitability of Islamic banking in the Middle East (Ahmed et al., 2020).

Table 5: Profitability ratios for Islamic banks

Bank	ROA (%)			ROE (%)		
	Average			Average		
	2001-2008	2009-2016	2017-2024	2001-2008	2009-2016	2017-2024
Al-Rajhi	3.87	3.49	3.66	25.92	25.52	25.69
KFH	0.73	2.43	1.52	-0.78	14.25	6.10
DIB	0.77	0.96	0.87	12.05	3.90	7.83

QIB	0.55	1.51	0.98	2.58	20.52	10.49
BIMB	1.12	0.50	0.79	14.14	6.45	9.96
JIB	0.92	0.46	0.67	17.55	6.56	12.00
BIB	0.94	1.25	1.09	10.99	9.66	10.21
IBBG	1.51	1.04	1.24	33.66	18.14	25.86
FIBE	0.15	0.22	0.20	2.55	5.98	4.49
FIBB	5.66	NA	3.93	18.05	NA	NA
BKTF	1.61	1.02	1.31	42.43	28.60	35.01
BKBN	1.67	1.37	1.43	4.76	4.83	4.49
Average	1.63	1.29	1.47	15.33	13.13	13.83

NA = not available.

Source: Calculated by authors. Source data are from annual reports.

Efficiency in Islamic Banking in Middle East

Efficiency is crucial for Islamic banks to maintain competitiveness and profitability in the long run. A crucial determinant is the cost-to-income ratio, which ideally should not exceed 50%. Return on Equity (ROE) and Return on Assets (ROA) are important indicators of profitability that should be at least as high as those of conventional banks. The adoption of technology is increasing, especially in digital banking systems, with the aim of reducing costs and optimizing operations (Hidayat et al., 2021). Efficient risk management strategies are crucial for ensuring both adherence to Sharia principles and maintaining financial stability. The overall efficiency is determined by the optimization of production and the optimal exploitation of resources. Ensuring adherence to regulatory requirements, particularly in relation to Sharia principles, ensures the trust and confidence of stakeholders. Delivering exceptional customer service enhances client satisfaction and loyalty, hence increasing productivity and competitiveness to an even greater extent (Khokhar et al., 2020).

Measuring bank efficiency

"Measuring bank efficiency" refers to the evaluation of the Middle Eastern banks' capacity to generate income while effectively managing expenditures. This study employs a diverse range of metrics to offer valuable insights into the operational efficiency of banks in the Middle East (Belasri et al., 2020). The cost-to-income ratio, which is the ratio of operating expenses to operating income, is a crucial statistic. Maintaining a level below 50% is indicative of efficient cost management in proportion to income generation. It can be expressed as (Lee et al., 2021):

$$\text{Cost-to-Income Ratio} = \text{Operating Expenses} / \text{Operating Income} \times 100\%$$

Return on Assets (ROA) is a vital measure that indicates the efficiency of a bank in generating profits from its assets. The typical range for Return on Assets (ROA) for well-performing banks is usually between 1% and 2%. The computation for Return on Assets (ROA) is as follows:

$$\text{ROA} = \text{Net Income} / \text{Total Assets} \times 100\%$$

Return on equity (ROE) is a statistic that quantifies a bank's ability to generate profits for its stockholders. The desired range is 10% to 15%. It may be computed as:

$$\text{ROE} = \text{Net Income} / \text{Shareholders' Equity} \times 100\%$$

The net interest margin (NIM) is a measure of a bank's ability to effectively manage interest rates and generate interest revenue. It is calculated by dividing the net interest income by the average earning assets. The formula for NIM (Net Interest Margin) is:

$$\text{NIM} = \text{Net Interest Income} / \text{Average Earning Assets} \times 100\%$$

Additional criteria, including as productivity, loan-to-deposit, and operating efficiency ratios, are used to evaluate the effectiveness of Middle Eastern banks. These metrics provide data on the allocation of resources, usage of assets, and management of costs (Ahmad et al., 2020). Additional research has found that Islamic banks exhibit higher levels of production compared to regular banks, mostly due to increased efficiency (Jubilee et al., 2020; 2021; 2022). Effective risk management procedures are crucial for banks operating in the Middle East to ensure operational sustainability and stability while complying with Sharia law. In the dynamic financial environment of the Middle East, banks may enhance their operations, increase their profitability, and maintain their competitiveness by employing appropriate formulas and focusing on specific efficiency measures (Wang et al., 2021).

Empirical evidence on efficiency in Islamic banking

The Islamic banking business in the Middle East is now in a state of development, and available data shows that it is striving to adhere to both Sharia law and international banking standards in order to improve its efficiency (Ibrahim, 2020). Several studies on efficiency measures in Islamic banks around the area have revealed both favorable and unfavorable features. Research shows that Islamic banks in the Middle East tend to be more cost-efficient than conventional banks. On average, Islamic banks have a cost-to-income ratio of around 47%, whereas traditional banks have a ratio of around 51% (Ibrahim, 2020; Rizvi et al., 2020). Several studies on efficiency measures in Islamic banks around the area have revealed both favorable and unfavorable features. Research shows that Islamic banks in the Middle East tend to be more cost-efficient than conventional banks. On average, Islamic banks have a cost-to-income ratio of around 47%, whereas traditional banks have a ratio of around 51% (Kamarudin et al., 2017). Based on these empirical findings, Islamic banks in the Middle East demonstrate significant effectiveness in several aspects. However, there is still a requirement for further progress, particularly in terms of adopting technology and optimizing operational processes to ensure sustained competitiveness in the long run. Empirical research is a valuable method for assessing performance, identifying optimal strategies, and fostering ongoing enhancements in efficiency within the financial landscape of the Middle East. This is exemplified by the data presented in Table 6, particularly as the Islamic banking industry continues to evolve (Bayuny & Haron, 2017; Moualhi, 2015).

The effectiveness of Islamic banking in the Middle East was assessed through the collection of empirical information utilizing a variety of research approaches. The data collecting process entailed acquiring financial records, yearly reports, and banking databases such as BankScope, spanning several years to capture and analyze patterns. The samples consisted of a balanced combination of Islamic and mainstream banks in the region. The investigation utilized

descriptive statistics and comparative analysis to succinctly explain and contrast the cost-to-income ratios, return on equity (ROE), and return on assets (ROA) of Islamic and conventional banks (Ibrahim, 2020; Rizvi et al., 2020). The researchers employed panel data regression approaches to determine the elements that affect bank efficiency, as demonstrated in the studies conducted by Bayuny and Haron (2017) and Moualhi (2015). In addition, the researchers employed Data Envelopment Analysis (DEA) and Stochastic Frontier Analysis (SFA) to assess the relative efficiency of banks by comparing them to the top-performing banks in the sample (Bayuny & Haron, 2017; Moualhi, 2015). The researchers also conducted surveys and interviews with bank executives to get insight into how digital banking solutions affect operational efficiency (Kamarudin et al., 2017). Data analysis was performed using statistical software tools such as Stata, SPSS, and R. To guarantee the reliability of the results, robustness checks and sensitivity analyses were undertaken.

Table 6: Cost efficiency in Jordan, Egypt, Saudi Arabia and Bahrain banking over 2001-2024 (%)

	2001	2003	2006	2009	2012	2015	2019	2022	2024	All
Bahrain	100	100	100	100	100	99	99	99	99	99
Egypt	94	94	94	94	94	93	93	93	93	94
Jordan	90	89	89	89	89	89	89	88	88	89
Saudi Arabia	97	97	97	97	97	97	97	97	96	97
Commercial	95	95	95	95	94	94	94	94	94	94
Investment	93	93	93	93	93	93	93	93	93	93
Islamic	98	98	98	98	99	99	98	98	98	98
Other	97	96	96	96	96	96	96	96	96	96
All	95	95	95	95	95	94	94	94	94	95

Source: Calculated by authors. Source data are from annual reports.

Challenges Facing Islamic Banking in Middle East

In the Middle East, Islamic banking has several difficulties. Operations are hampered by inconsistent rules, which differ throughout nations. Product diversity is not as strong as it is at traditional banks, which limits client possibilities (Saleh & Zeitun, 2006). There is still a dearth of qualified professionals in the field, which requires thousands of experienced specialists. Limited investment channels may provide a liquidity issue for Islamic banks. Notwithstanding these obstacles, the Islamic finance industry is expected to rise to \$2.7 trillion in assets by 2024. To maximize the impact of Islamic banking in the area and overcome obstacles, cooperation and technology integration are essential (Grassa, 2024).

Theoretical challenges: unresolved issues

Theoretical issues in Islamic banking and finance still exist. Interpreting Sharia principles is still up for controversy; according to 58% of professionals, there isn't a single Sharia governance paradigm that applies to all situations. The compliance of financial instruments with Islamic law is ambiguous; 72% of respondents cite the sukuk issuance rules as an example (Opoku, 2024). According to 64% of practitioners, the lack of standard contracts that comply with Sharia law increases complexity. Even with 6% to 8% annual growth rates, which will reach \$2.88 trillion

globally in 2023, there is still uncertainty in Sharia-compliant activities. Stakeholder consensus-building and intellectual participation are necessary to resolve these problems (Antonion et al., 2024).

Practical challenges: operational problems

Operational problems that impede efficient operation are among the practical hurdles faced by Islamic banks. Approximately forty-five percent of Islamic financial institutions are hindered by antiquated infrastructure and insufficient digital solutions (Kogetsidis, 2024). Roughly 62% of banks suffer from operational inefficiencies, such as manual procedures and protracted transaction delays. About 53% of Islamic banks are impacted by compliance issues arising from differing regulatory frameworks and Sharia requirements (Ackermann, 2024). Roughly 70% of institutions struggle with a lack of talent in specialist fields like Sharia consulting and Islamic finance knowledge, which impedes efforts at innovation and growth (Spinillo et al., 2024). Problems with managing liquidity are also common; over 40% of Islamic banks find it difficult to do so in accordance with Sharia law. Furthermore, worries regarding product authenticity and transparency are a major source of customer trust difficulties, with roughly 55% of customers voicing such concerns. To meet these difficulties and increase efficiency and competitiveness in the global financial scene, a substantial investment in technology, personnel development, and strategic initiatives is needed (Steen et al., 2024).

Operational Challenges Compliance with Sharia Law

Ensuring compliance with Sharia law is one of the primary operational challenges for Islamic banks. Islamic banking prohibits activities that involve interest (riba), excessive uncertainty (gharar), and speculative transactions. This necessitates the creation of financial products that are fundamentally different from those offered by conventional banks, such as profit-sharing agreements (Mudarabah), joint ventures (Musharakah), and lease-to-own contracts (Ijarah). Developing these goods necessitates creative financial engineering and ongoing supervision by Sharia boards, which leads to higher operating expenses and hampers the pace of product advancement (Al Fageh, 2021)

Lack of Standardization

Another notable operational problem arises from the absence of uniformity in Islamic banking operations. Various schools of Islamic jurisprudence have distinct interpretations of Sharia law, resulting in differences in the implementation of Islamic banking concepts across different areas. The lack of uniformity in Islamic financial products can cause confusion for clients and make cross-border banking operations more complex. This can hinder the scalability of these products as banks need to customize their offers to comply with the particular regulations of other regions (Wani et al., 2021).

Regulatory Challenges

Regulatory Frameworks

Islamic banks frequently function inside conventional financial systems that may not entirely meet their distinct needs. Most regulatory frameworks are primarily tailored to accommodate traditional banking practices, resulting in a dearth of legislation that specifically cater to the needs of Islamic banks. Conventional banks have the ability to employ interest-based instruments for managing liquidity, but Islamic banks are restricted from doing so. Islamic banks may have a disadvantage due to the lack of a specific regulatory framework, since they have to deal with rules that are not in line with their operational principles (Yas et al., 2020).

Supervision and Governance

Another crucial regulatory difficulty is to provide efficient monitoring and governance. Islamic banks are required to comply with both normal regulatory norms and Sharia rules, which may be rather rigorous. Specialized regulatory agencies and Sharia supervising boards are necessary to ensure conformity with both aspects. Nevertheless, there is frequently a dearth of competent professionals possessing competence in both domains, resulting in deficiencies in governance and uneven supervision (Khmous & Besim, 2020).

Market Challenges

Awareness and Understanding

There is a widespread lack of information and comprehension of the principles of Islamic banking among potential clients and even within the financial community. A significant number of individuals lack knowledge about profit-sharing, joint ventures, and lease-to-own arrangements. This lack of awareness might hinder the market expansion of Islamic banking products. Erroneous beliefs regarding the intricacy and expense of Islamic banking items might moreover dissuade users from regarding them as feasible substitutes for traditional banking choices (Wilson, 2021)

Competition with Conventional Banks

Islamic banks frequently encounter strong competition from long-established conventional banks. It might be difficult to compete based on pricing, service quality, and product innovation while also following Sharia principles. Traditional banks possess the benefit of well-developed infrastructures, cost advantages due to large operations, and established groups of customers. Conversely, Islamic banks are obligated to allocate resources towards the development of goods that adhere to Sharia principles, teaching clients about these products, and establishing trust, which might require a significant amount of resources. In addition, the scarcity of Sharia-compliant financial products might restrict the expansion and profitability of Islamic banks (Sarker et al., 2020).

Technological Challenges

Digital Transformation

Adapting to fast-paced technical progress and incorporating it into the structure of Islamic banking is a major difficulty. Digital banking solutions, including internet banking, mobile banking, and fintech advancements, are gaining significance in the financial sector. Islamic banks must verify that these technical solutions adhere to Sharia norms, necessitating meticulous deliberation and customization (Sarker et al., 2020).

Cybersecurity

Islamic banks, like other financial organizations, must confront cybersecurity risks while ensuring that their technology solutions align with Islamic teachings. It is of utmost importance to prioritize the security of digital transactions and safeguard client data. However, it is necessary to ensure that the methods used to achieve these objectives are in accordance with Sharia law. This may restrict the use of some technology solutions that are often used by traditional banks (Ikra et al., 2021).

Discussion

Globalization has profoundly impacted the banking sector, including Islamic banking in the Middle East, leading to significant improvements in productivity, efficiency, and overall performance. One of the most notable effects has been the rapid adoption of advanced technologies. Islamic banks in the region have integrated online and mobile banking systems, enhancing service delivery and customer convenience. According to the Islamic Financial Services Industry Stability Report in 2023, the implementation of digital banking solutions has resulted in a 25% increase in customer bases over the past five years. Additionally, mobile banking transactions have surged by 40% annually, reflecting the growing preference for digital financial services (El-Halaby et al., 2023). Blockchain technology has also emerged as a transformative force, improving transparency and reducing fraud risks by 20%. The use of smart contracts ensures that transactions comply with Sharia principles, thereby boosting trust and efficiency in the financial system (Rabbani, 2022).

The globalization process has also driven the harmonization of regulatory frameworks across different jurisdictions. Many Islamic banks in the Middle East have adopted Basel III standards, which have led to a 20% improvement in capital adequacy ratios and a 30% reduction in non-performing loans (Hussain & Muhammad, 2022). This regulatory alignment has contributed to a more stable and predictable banking environment, enhancing the resilience of Islamic banks and their competitiveness on a global scale. In addition, the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and the Islamic Financial Services Board (IFSB) have been instrumental in establishing standardized processes for ensuring compliance with Sharia principles. By 2023, the adherence to AAOIFI criteria by Islamic banks in the area has increased to 85%, resulting in a notable improvement in operational transparency and consumer confidence (El-Halaby et al., 2023; Salihu et al., 2023). Globalization has greatly contributed to

the tremendous progress of financial inclusion, which is a key premise of Islamic banking. The number of Islamic microfinance institutions has increased by 40%, now serving over 2 million customers, with assets growing by 50% to \$3 billion over the past five years (Ibrahim et al., 2022). Financial literacy programs have expanded reach, educating over 1 million individuals and increasing financial literacy rates by 25%, which has helped broaden the customer base by 15% (Hansen-Addy et al., 2024). Islamic banks have expanded their range of products and formed strategic alliances in order to address the challenges posed by global competition. The yearly growth rate of Sukuk issuance has been 50%, resulting in a total of \$150 billion in 2023. Additionally, collaborations with fintech firms have contributed to a 30% rise in digital transaction volumes (Emuron et al., 2024). These methods, in addition to the growth of operations into foreign locations like as Southeast Asia and Africa, have increased the global footprint of Islamic banks by 20%, further enhancing their competitiveness (Raseala & Hlwatika, 2022).

Conclusion

Overall, the Islamic banking business in the Middle East is seeing increased globalization, resulting in a complex landscape that requires careful consideration of both opportunities and risks. Globalization facilitates technological progress and commercial growth, but it also exposes Islamic banks to more regulatory scrutiny and heightened competition. In order to thrive in the current environment, Islamic banks must prioritize adherence to Sharia principles. In addition, it is imperative for them to use partnerships and advancements in technology in order to enhance production and efficiency. Moreover, it is crucial to allocate resources towards the enhancement of human capital to foster a culture that is both inventive and flexible. These institutions may enhance their position in the global financial arena by adopting a diverse approach that promotes Islamic principles while embracing globalization. Ultimately, this will bolster the region's ongoing economic expansion by ensuring stability and financial access, all while upholding the unique features and values of Islamic banking.

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