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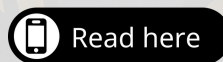
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Driving Sustainable Innovation: Islamic Financial Literacy and Inclusion in the Five Southernmost Provinces of Thailand

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Abstract

Financial literacy is increasingly recognised as enhancing access to financial services. The role of financial literacy in enabling individuals to make well-informed financial decisions is crucial. Financial inclusion ensures that individuals can participate in the formal economy and access financial tools to improve their living standards. Accordingly, financial literacy and inclusion are essential because they provide people with the knowledge and access to services that promote a more sustainable financial system, which benefits the larger community and the economy. However, exploring Islamic financial literacy, particularly in Muslim minority countries, remains a nascent concept. Furthermore, research on financial literacy and inclusion from an Islamic perspective is limited. Therefore, this research aims to examine the level of Islamic financial literacy, inclusion, and their relationship in the five southernmost provinces of Thailand. A mixed-methods research design was employed, using questionnaires and semi-structured interviews to gather quantitative and qualitative data. Based on empirical evidence, proactive policy recommendations are proposed to encourage Islamic financial institutions to increase Islamic financial literacy and inclusion by educating their targeted customers and developing products tailored to their needs. This should also emphasise the significant contribution of higher education in implementing policies to educate and innovate Islamic financial products that are compatible with the community's requirements. To support these initiatives, more resources should be allocated to Islamic finance scholars to enable them to organise seminars to increase Islamic financial knowledge among the public. Additionally, an information centre could be established to gather statistical data related to the Islamic financial sector in a specific region to facilitate the creation of Islamic financial products that meet customers' demands.

Keywords: Islamic Financial Literacy; Inclusion; Sustainable; Innovation; Thailand; Islamic Finance



1. Introduction

Financial literacy and financial inclusion are widely recognised as crucial goals in Thailand's development agenda. According to the International Survey of Adult Financial Literacy Competencies conducted by the Organisation for Economic Cooperation and Development (OECD) / International Network on Financial Education (INFE) in 2016, Thailand's financial literacy scores are lower than the global average. Nevertheless, the Bank of Thailand's financial inclusion survey revealed that the financial access of Thai households increased from 98.7% in 2018 to 99.7% in 2020 (Bank of Thailand, 2020). These data indicate that many financial customers in Thailand may not be financially literate. However, there is an absence of information relating to Islamic financial literacy (IFL) and Islamic financial inclusion (IFI) among Thai Muslims. Moreover, the existing surveys are based on the conventional model that excludes the beliefs of Muslim respondents. Therefore, this study is conducted to identify how well Thai Muslims understand the concept of Islamic finance and how many have access to Islamic financial services. In Thailand, Islam is the largest minority faith; there are approximately 3.2 million Muslims or 4.9% of the total population. About two-thirds live in the five southernmost provinces, namely Pattani, Yala, Narathiwat, Satun, and Songkhla (National Statistical Office, 2010 cited in Pattani Economy, 2019). Muslims in Thailand enjoy the same protection and support granted to every civilian. They can practice their faith and participate in religious and social activities.

Additionally, without any discrimination, they are entitled to the same political rights as other citizens in the democratic system, with the King as the Head of State. Islamic finance was first introduced in the country in 1987 when a group of dedicated Muslims founded the Pattani Islamic Saving Cooperative to manage funds in the area. Since then, the Thai government has noticed the importance of Islamic finance after the signing ceremony of the Indonesia-Malaysia Thailand-Growth Triangle (IMT-GT) in 1994. The two primary reasons for the government to initiate Islamic financial institutions in Thailand were to provide Shari'ah-compliant financial services to Thai Muslims and to establish financial institutions that link to IMT-GT members and the Muslim world. After the 1998 Asian Financial Crisis, the government looked at Islamic finance from different perspectives and recognised its potential as an alternative financial system (Sitthivanich and Hassan, 2018). This study was conducted in 2020 and 2022 based on data collected from Muslim and Islamic financial-related organisations in Thailand's five southernmost provinces. Given the potential of Islamic finance in a Muslim minority country like Thailand, it could be utilised as a sustainable tool to promote business opportunities for all groups of people while also stimulating economic growth in the wider community.

The rest of the paper is organised as follows. The next section provides a background of the literature review. Section three provides the methodological design and approach of this study. Section four shares the main results achieved. Then, section five discusses the main results, considering the theoretical background. Finally, section six concludes the paper.

2. Literature review

An in-depth review of the existing literature indicates that the research on IFL can be treated as a new topic brought into Islamic finance. This is evident when Kayed (2008) asked "if there are any attempts by the research community to assess levels of IFL in various Muslim communities." Two years later, Ahmad (2010), in his paper, drew attention to the essentials of IFL among the Muslim population and called for further research. Furthermore, the exploratory study on financial literacy undertaken by Abdullah and Chong (2014) demonstrated the absence of findings on financial literacy from the Islamic



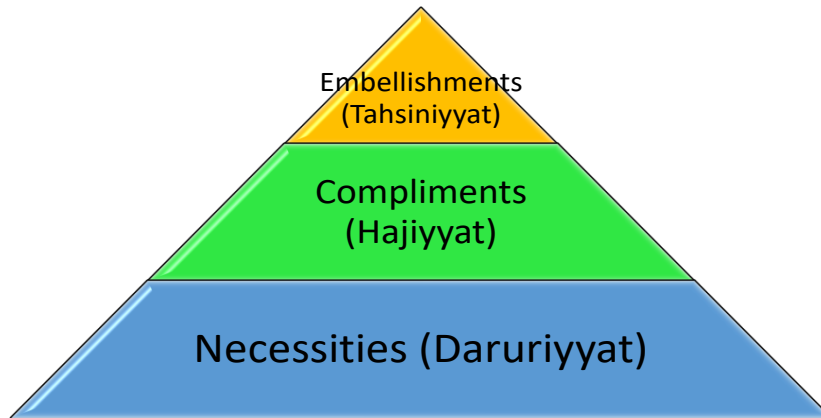
perspective. These doubts showed that, during those times, there was a demand for research on IFL. Eventually, the studies of IFL appeared in and after 2015.

The first definition of IFL can be found in the work of Abdullah and Anderson (2015, p. 4), which states that 'IFL is the stock of knowledge that one acquires through education and/or experience related explicitly to essential Islamic finance concepts and products. Notwithstanding, a review of the literature reveals that many IFL studies (e.g., Alfarisi et al., 2020; Biplob and Abdullah, 2019; Er and Mutlu, 2017; Khasanah et al., 2022) have adopted and applied the definition of financial literacy proposed by Atkinson and Messy (2012) in the OECD Working Papers. They view IFL as a combination of Islamic financial knowledge, attitudes, and behaviours in making financial decisions and managing financial resources by Islamic teachings. According to this perspective, Alfarisi et al. (2020) elaborated on each component as follows: Islamic financial knowledge entails an understanding of Shari'ah principles within the Islamic financial system; Islamic financial attitude refers to attitudes toward Islamic financial services; and Islamic financial behaviour refers to the behaviour demonstrated when using Islamic financial instruments. In addition, Biplob and Abdullah (2019) broaden the concept of IFL by including the idea of charity in Islam. This concept encompasses wealth purification and distribution, two of Islam's most important tenets. Based on these perspectives, it can be inferred that IFL is a comprehensive concept that covers various aspects of financial matters.

From the Islamic perspective, the importance of IFL is highly associated with wealth (Mal), which is one of the categories of the Maqasid of Shari'ah, set to achieve the well-being of humankind (Biplob and Abdullah, 2019; Khotiawan and Luthfiansyah, 2017; Lahsasna, 2016). According to Ayub (2007), the preservation of wealth connotes the sanctity of wealth among society members, focusing on earning Halal income and encouraging spending to receive the pleasure of God. Existing literature indicates that a Muslim with a high level of IFL tends to understand the concepts of Islamic wealth (Biplob and Abdullah, 2019), make financial decisions by Shari'ah principles (Antara et al., 2016), cultivate good financial habits as prescribed by the teachings of Islam (Nawi et al., 2018), strengthen the foundation of ethics and morality (Dinc et al., 2021), avoid taking significant risks (Yunus et al., 2021), and control spending behaviour to minimise bankruptcy (Abdullah et al., 2022). Thus, by being well-equipped with IFL, individuals can avoid engaging in transactions that are deemed unethical or harmful in Islam. This can result in increased financial security and a more balanced and mindful approach to money management.

As for IFI means having access to Islamic financial products and services available in the market (Abdullah et al., 2021). However, the conventional banking system is not suitable for Muslims due to the presence of interest, ambiguity, gambling, and sinful transactions, all of which are strictly forbidden in Islam. To address this need, Shari'ah-based financial institutions have been established in various parts of the world (Zulkhibri, 2016). The advent of Islamic financial institutions has played a pivotal role in facilitating Muslim clients to save, raise funds, and invest in a way consistent with their faith. Moreover, Islamic finance has been recognised for its potential to contribute to sustainable development, particularly in alignment with the Sustainable Development Goals (SDGs). By fostering inclusive growth and supporting socially responsible outcomes, Islamic finance can play a significant role in enhancing financial inclusion and improving the financial sector's resilience (Aboul-Dahab, 2023). Since the foundational principles of Islamic finance are based on Shari'ah, the importance of IFI can be seen in the hierarchy of the Maqasid of Shari'ah, as illustrated in Figure 1 below.

Figure 1. The Hierarchy of the Maqasid of Shari'ah in Islamic Finance



Source: Aris et al. (2013)

According to Figure 1, "necessities" (Daruriyyat) are regarded as the most essential component of humanity. The necessities can be subdivided into five elements of preservation: faith, self, intellect, posterity, and wealth (Tarique et al., 2017; Vejzagic and Smolo, 2011). Accordingly, the protection of wealth is categorised as one of the necessities vital to human life. In this regard, financial inclusion contributes to the necessities by ensuring that the wealth of society members is kept securely through Shari'ah-compliant products such as Wadi'ah safekeeping accounts (Ahmed, 2011). Another contribution to the necessities is eliminating unfair exploitation caused by usury and uncertainty.

Additionally, as Islamic financial institutions are strictly prohibited from involving unethical businesses like alcohol or weapons, society will be safe from the harmful nature of these businesses (Dusuki and Bouheraoua, 2011). The next level is "compliments" (Hajiyyat). This component is required to eliminate hardship and facilitate the well-being of humanity (Dusuki and Bouheraoua, 2011). Under "compliments," financial inclusion can fulfil the everyday needs of individuals by financing houses and motor vehicles through Murabahah and Ijarah (Ahmed, 2011). The last component at the top is "embellishments" (Tahsiniyyat). Mukminin (2019) highlights that profits generated from financial activities serve a dual purpose: to preserve and enhance wealth and promote the welfare of individuals, particularly those who have overcome adversity and transformed their resources into financial gains. This approach underscores the broader objectives of Islamic financial practices, which aim to support wealth preservation and individual well-being. Moreover, this component refers to desirable elements that grant additional value to humankind (Tarique et al., 2017). These elements include voluntary acts (Vejzagic and Smolo, 2011). In this regard, Islamic financial institutions can promote financial inclusion by utilising income redistribution instruments like Sadaqah to connect many poor people to the formal financial system (Zulkhibri, 2016). Hence, Islamic IFI could be crucial in providing a comprehensive framework for supporting all societal groups.



2.1 The Relationship between Islamic Financial Literacy and Islamic Financial Inclusion

The advocates of financial literacy and inclusion (e.g., Atkinson and Messy, 2013; Morgan and Long, 2020) have asserted that financial literacy can positively affect access to and use of financial services. Moreover, with the growth of innovation and sophisticated financial products, customers require an understanding, skills, and confidence to use them more than ever (Demirguc-Kunt and Klapper, 2012). The review of the literature also reveals that financial literacy enables one to evaluate and compare financial products to make a well-informed decision that satisfies their financial needs and achieves welfare (Atkinson and Messy, 2013). Thus, financial literacy could facilitate the process of decision-making and help avoid financial mistakes. The study by Koomson et al. (2020) shows that individuals with a high level of financial literacy are more likely to know where to seek financial assistance and can receive financial advice from financial institutions. Er and Mutlu (2017) also pointed out that financial literacy can eliminate information asymmetry between banking agents and clients. In this respect, financial literacy makes people aware of what they can consider their rights from the financial services providers.

Furthermore, Senghore (2023) emphasises that IFL and a supportive regulatory environment are crucial for the growth of the Islamic finance sector. Increased public awareness and adoption of these products, combined with favourable regulations, will attract investors and promote competition. This, in turn, improves product quality and offers consumers a wider range of options, promoting greater financial inclusion.

Nevertheless, some studies have concluded that financial literacy has a moderate or little impact on financial inclusion (Bruhn et al., 2014; Lyons et al., 2017). Based on these studies, though positive impacts are discovered, the effects of financial literacy are only on specific groups of people. Additionally, Ozili (2021), who conducted a global review of financial inclusion, found that financial literacy can enhance financial inclusion when a lack of knowledge is the leading and only barrier to using financial services.

Despite several studies not fully supporting the relationship between financial literacy and financial inclusion, the recent global financial crisis has created a growing consensus among policymakers to acknowledge financial literacy as an essential element for financial inclusion. International agencies and governments worldwide have shown initiatives to promote financial literacy as a complementary policy to achieve financial inclusion. This can be seen in the World Bank's target of achieving Universal Financial Access (UFA), which recognised financial literacy as one of the main drivers to attaining UFA (World Bank, 2018). Moreover, many countries, including Thailand, have established a framework for improving financial inclusion and literacy (NESDB, 2016). As such, policymakers view that financial literacy and financial inclusion are highly correlated and complement each other. The primary reason is that financial literacy enables people to make informed decisions about financial products and services, which leads to sustainable finance and economic development (Atkinson and Messy, 2013).

From the Islamic perspective, the requirement of IFL and IFI is mainly driven by the obligation to comply with Shari'ah jurisprudence (Shakeel, 2017). Additionally, IFL is crucial for Muslims to navigate the intricacies of Islamic financial products and services (Nawi et al., 2018). According to Zaman et al. (2017), all Muslims need to grasp the fundamental principles of Islamic finance, such as the profit and loss sharing system, the Islamic modes of financing, and the distinctions between interest and profit, before participating in the Islamic financial system. Based on empirical study, a potential link between IFL, IFI, and actual economic activity has been observed. The study conducted by Rozikin and Sholekhah (2020) demonstrated a significant impact of IFL on intentions to save money with Islamic financial institutions. Since savings provide



the capital required for investment, when individuals save money, these funds can be channelled to support business expansion, resulting in job creation and increased productivity (Mankiw, 2014).

Furthermore, empirical research by Basrowi et al. (2020) highlighted a significant link between IFL and financial technology. The work of Demirguc-Kunt et al. (2018) in The Global Findex Database 2017 emphasises the importance of financial technology in promoting economic activities, particularly by increasing access to financial services via mobile banking and other digital platforms, especially for unbanked or underserved populations. Financial technology has also been recognised as a driving force behind the creation of innovative financial products. Technologies such as artificial intelligence, big data analytics, and blockchain have all played instrumental roles in improving existing financial products or developing new ones (Demirguc-Kunt et al., 2018). Some studies in the field have also indicated that IFL can ensure sustainable finance by preventing excessive risks (Yunus et al., 2021) and minimising bankruptcy (Abdullah et al., 2022) in the market. These empirical data highlight the potential consequences of IFL and IFI in the economy. Thus, if Muslims are well-equipped with IFL, it could provide prosperity for the Islamic banking industry and the economy.

2.2 The Measurement of Islamic Financial Literacy and Islamic Financial Inclusion

Measures used to evaluate conventional financial literacy have not been adequately tailored for Muslims. For example, the inclusion of interest in traditional financial literacy frameworks contradicts the principles of Islamic finance. The literature review on the measurement of IFL reveals that most empirical studies assess it by examining the understanding of the principles of Islamic finance, such as Islamic financial-related terms (Rozikin and Sholekhah, 2020; Zaman et al., 2017), charity in Islam (Aisyah and Seapuloh, 2019), and computation questions (Er and Mutlu, 2017; Yunus et al., 2021). Researchers have also measured it by assessing awareness and perception of Islamic financial products and services in the market (Albaity and Rahman, 2019; Alfarisi et al., 2020). Moreover, Er and Mutlu (2017) and Yunus et al. (2021) have constructed a set of questions relating to personal financial planning and management based on Shari'ah principles.

It was found that researchers in the field also used qualitative measurements to assess IFL. Abdullah and Razak (2015) adopted an interview technique to investigate the significance and necessity of IFL and explore Islamic financial education and planning. In 2021, Dewi and Ferdian conducted workshops on Islamic financial literacy to present a comprehensive educational model to improve IFL. Abdullah et al. (2022) utilised a semi-structured interview to gather expert opinions on whether IFL can minimise bankruptcy among Muslims. In another study, Khasanah et al. (2022) employed ethnographic studies using direct observation and interviews to determine factors that impact the level of IFL in various communities. Furthermore, Yuslem et al. (2023) used a qualitative approach with a case study technique to investigate the problem of IFL among Islamic scholars. As such, qualitative measurements can be used to delve deeply into the perspectives of IFL and discover information that cannot be obtained through quantitative surveys.

In this study, the level of IFL is measured quantitatively from the aspects of Islamic financial knowledge, attitude, and behaviour. This research has also incorporated qualitative interviews to gain insightful information regarding IFL in the research context. The use of the qualitative technique is expected to complement the findings of quantitative measurements.

For financial inclusion, most studies from Islamic perspectives have utilised the same indicators to measure financial inclusion as conventional ones. The measurement was found to be conducted on both the demand side and the supply side. Typically, individual or household surveys are used to gather data from the demand side. There are three significant indicators



of financial inclusion from the demand side. The first indicator is financial access, associated with measuring accessibility to formal financial services (Bank for International Settlements, 2015). Many previous studies (e.g., Abdullah et al., 2021; Demirguc-Kunt et al., 2013) have measured access to financial services by the degree of account ownership. The second indicator is financial usage, which refers to how individuals use the financial services available (Bank for International Settlements, 2015). Numerous studies have examined usage by looking at using an account to save and using bank credit. The data from financial usage can help identify types, patterns, and behaviours related to using financial services (Demirguc-Kunt and Klapper, 2013). The third indicator is barriers, which measure obstacles that prevent individuals from accessing financial services (Camara and Tuesta, 2017). Most recent studies have adopted self-reported barriers to using formal accounts, as suggested by Global Findex, which outlines seven possible reasons for not having a bank account. These reasons include the cost of financial services, distance to financial services, lack of trust in financial institutions, joint use of financial services, religious reasons, lack of money, and documentary requirements (Demirguc-Kunt and Klapper, 2012). Individuals can choose more than one reason to answer this. The measurement of barriers to financial inclusion is quite helpful in facilitating the analysis of segments facing financial exclusion (Atkinson and Messy, 2013; Demirguc-Kunt and Klapper, 2012).

Regarding the supply side, the study by Camara and Tuesta (2017) collected data from financial institutions by measuring the availability of bank branches, banking agents, and ATMs. Klapper and Singer (2017) reviewed supply-side data by examining the number of loan and deposit accounts per capita. Tissot and Gadanecz (2017) assessed supply-side data by considering the variety of access channels, the proximity of access points, and the cost of financial services. Ben Naceur et al. (2015) measured supply-side data by comparing the total size of assets of Islamic financial institutions with the total size of assets of the entire banking industry. Given the above, data from the supply side are essential because they help us understand the constraints that result in involuntary exclusion from formal financial services.

For the present study, data on IFI were collected from both the supply and demand sides. On the demand side, the focus was on examining access, usage, and barriers to IFI. On the supply side, the objective was to capture information about activities undertaken to promote IFI, access channels, availability of Islamic financial products, limitations, and strategies to enhance IFI. Therefore, the data gathered from both sides are expected to yield comprehensive results, allowing for an accurate assessment of the current state of IFI in the five southernmost provinces of Thailand.

3. Methodology

This study is classified as mixed-method research, wherein quantitative and qualitative methods were employed to capture the necessary information from primary sources. The data for quantitative research were gathered via questionnaire distribution. The research area chosen was the five southernmost provinces of Thailand, including Pattani, Yala, Narathiwat, Songkhla, and Satun, and questionnaires were distributed to Muslim respondents. A sample size of 500 was selected and derived using a convenience sampling technique. The total sample was divided equally among the five provinces, resulting in 100 respondents from each province. Although a total of 500 questionnaires were initially distributed, out of which 437 were deemed usable and valid, resulting in a response rate of 87.4 percent. The questionnaire is divided into three sections. The first section captures the demographic and economic information of the respondents; the second section measures the level of IFL across three dimensions: financial knowledge, attitudes, and behaviours; and the last section assesses the status of IFI from



three indicators, namely, access, usage, and barriers. The data collected were analysed using IBM SPSS Statistical software version 25 and displayed using tables and figures.

In terms of qualitative data, a semi-structured interview was used to delve deeply into perspectives and explore new topics of interest. The interview sample was selected using a purposive sampling technique involving thirteen representatives from Islamic financial-related organisations in the five southernmost provinces of Thailand. They included four informants from Islamic banks. These informants were chosen from the provincial and regional branches, the Socio-Economic Development Department for the Five Southern Provinces of the Islamic Bank of Thailand (iBank), and the Bank for Agriculture and Agricultural Cooperatives (BAAC) Islamic Banking Fund. Three informants were from Islamic cooperatives, namely the Ibnu Affan Islamic Cooperative, which is the most popular in Pattani, Yala, and Narathiwat provinces; the As-Siddeek Islamic Cooperative, the most popular in Songkhla province; and the Ibnu Auf Islamic Cooperative, the most popular in Satun province. Three informants were from non-bank Islamic financial institutions, specifically a Takaful operator, an Islamic leasing company, and an Islamic investment company. One informant was from the Islamic Provincial Council, and two informants were from universities offering Islamic finance studies, namely the College of Islamic Studies at Prince of Songkhla University (PSU) and Fatoni University (FTU). Accordingly, the sample was chosen to be heterogeneous to obtain a comprehensive range of opinions. Five key interview questions were formulated to gather information about the role of related parties in enhancing the level of IFL and IFI, limitations of IFL and IFI, and strategies for increasing the levels of IFL and IFI in the region. For data analysis, thematic analysis was employed to categorise emergent and essential themes, which were then used to address the study's objectives.

4. Results

4.1 Examining Islamic Financial Literacy and Islamic Financial Inclusion of the Thai Muslims in the Five Southernmost Provinces of Thailand

This section critically analyses the results of questionnaire responses using statistical techniques to examine the status of IFL and IFI among Thai Muslims residing in the five southernmost provinces of Thailand. The quantitative data received from 437 respondents has been analysed in this section. Table 1 presents a descriptive analysis of the demographic variables of the respondents. The study focuses on the dimensions of gender, age, level of education, and monthly income. According to the table, most respondents were female, representing 62.5%, while 37.5% were male. Most respondents (77.3%) were between 20 and 49 years old, and the rest (22.7%) belonged to the 18-19 and 60-79 age brackets. Then, the data indicates that 43.2% of the respondents had obtained a degree from a university, 40.3% had attained a secondary school and vocational certificate, and 16.5% were primary school graduates with no formal education. Regarding monthly income, more than half of the respondents (51.7%) earned equal to or less than THB 10,000 per month, while only 3.0% earned more than THB 30,000, with the remaining respondents earning between THB 10,000 and THB 30,000.



Table 1. Demographic Profile of Respondents

Variable	Frequency	Percentage
Gender		
Male	164	37.5
Female	273	62.5
Age		
18-19 years	20	4.6
20-29 years	107	24.5
30-39 years	116	26.5
40-49 years	115	26.3
50-59 years	52	11.9
60-69 years	20	4.6
70-79 years	7	1.6
Level of Education		
University's Degree	189	43.2
Secondary School	111	25.4
Vocational Certificate	65	14.9
Primary School	60	13.7
No Formal Education	12	2.8
Monthly Income		
THB 10,000 and below	226	51.7
THB 10,001-THB 15,000	90	20.6
THB 15,001-THB 20,000	26	5.9
THB 20,001-THB 25,000	55	12.6
THB 25,001-THB 30,000	27	6.2
More than THB 30,000	13	3.0

Source: Authors' elaboration

Based on Table 2, it was found that the mean score of Islamic financial knowledge of the sample is 41.6%. Thus, the results point out that respondents lack Islamic financial knowledge. When looking at it in detail, the data shows that a large proportion of respondents reported that they did not know the answers to Islamic financial terms or how Islamic financial products and services work. The findings obtained from this study are per previous empirical studies done by Abdullah and Razak (2015), Alfariis et al. (2020), and Zaman et al. (2017), which found that respondents were having difficulty in identifying commonly used Islamic financial terms and products. Regarding the Islamic financial attitude score, the mean score equals 52.4%. Although the score was above average, and the respondents were aware of the availability of Islamic financial services in the market, they still perceived no difference between conventional and Islamic financial products. The results of this study



are like many of the studies in the field, including those of Abdullah and Anderson (2015), Er and Mutlu (2017) and Zaman et al. (2017), who found that respondents believe both Islamic and conventional banking products are the same, except for their names. In testing the behaviour relating to Islamic finance, the findings reveal that respondents possess a good understanding and were able to plan their spending and savings and invest in transactions permissible by Shari'ah law. Regarding the level of IFL, which is calculated by adding the scores of Islamic financial knowledge, attitude, and behaviour, it was observed that the mean score of the sample is equal to 50.48 percent, indicating that the level of IFL is just above the average.

The analysis of the association between IFL scores and selected demographic variables illustrates that males have higher IFL scores than females, although the variation in figures is not substantial. Furthermore, the overall scores were lowest among the 18-19 and 70-79 age groups. Thus, the results point to widespread Islamic financial illiteracy among the younger and older populations in the five southernmost provinces of Thailand. According to the level of education, respondents with higher education seem to have the highest mean scores, while respondents with secondary, primary, and no formal education were the least financially literate groups. Therefore, the findings indicate a positive link between the level of education and IFL. Then, the data suggest that the lowest income group appeared to be the least financially literate compared to other groups.

Table 2. Overall Islamic Financial Literacy Test Score

Islamic Financial Literacy Item	Total Score	Mean Score	Percentage	Standard Deviation
Islamic Financial Knowledge	15	6.24	41.6	3.67
Islamic Financial Attitude	5	2.62	52.4	1.23
Islamic Financial Behaviour	5	3.76	75.2	1.63
Level of Islamic Financial Literacy	25	12.62	50.48	4.90

Source: Authors' elaboration

The data in Table 3 indicates that this group's mean score for Islamic financial access is 17.2 percent. The most widely held Islamic financial product in the five southernmost provinces of Thailand is a deposit account. When examining other Islamic financial products, such as Islamic credit, Islamic vehicle leasing, Shari'ah-compliant equity funds, and Islamic insurance, the number of respondents with access to them was relatively low. Regarding the Islamic financial usage score, the average score for the entire sample is 20.5 percent. The data above shows that only one-fifth of respondents used Islamic financial services for their transactions in the last 12 months. Based on the level of IFI, which was derived from the total score of Islamic financial access and usage, it was discovered that the respondents have a mean score of 18.14 percent. Consequently, most respondents stated they had no Islamic financial products and had not used the services. Thus, the level of IFI across the sample in the five southernmost provinces of Thailand remains low.

The cross-tabulation analyses between IFI scores and demographic information indicate that females are less likely than males to own and use Islamic financial products and services. Moreover, it was found that age is negatively associated with the level of IFI, suggesting that older people are more likely to experience Islamic financial exclusion than younger individuals. Regarding the level of education, the findings reveal that respondents with tertiary education are more likely to



access and use Shari'ah-compliant financial services than those with secondary education or less. Regarding monthly income, the results indicate that respondents who earned THB 15,001-THB 20,000 have the highest scores in Islamic financial access and usage. The results show only minor differences in total scores between the highest and lowest income quintiles. Therefore, this study found no significant correlation between income level and IFI.

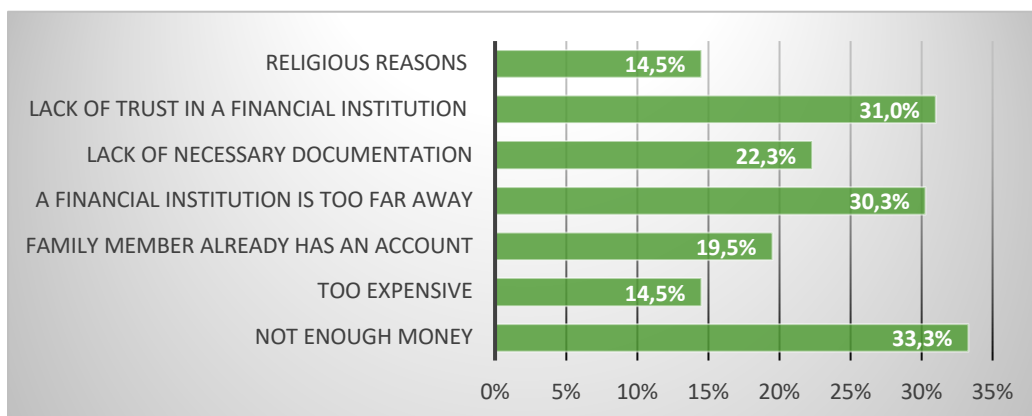
Table 3. Overall Islamic Financial Inclusion Test Score

Islamic Financial Inclusion Item	Total Score	Mean	Percentage	Standard Deviation
Islamic Financial Access	5	0.86	17.2	1.26
Islamic Financial Usage	2	0.41	20.5	0.69
Level of Islamic Financial Inclusion	7	1.27	18.1	1.83

Source: Authors' elaboration

The figure below illustrates that the most reported barrier that could prevent the sample in the area from using Islamic financial products and services is not enough money. This barrier was cited by one-third of respondents, and 18 percent cited it as the only reason. The second most perceived barrier is a lack of trust in a financial institution, which was given by 31.0 percent of respondents. The third most common reason cited by 30.3 percent of respondents is that a financial institution is too far away. The most widely cited barriers are a lack of necessary documentation and family members already have an account. Each of these was mentioned by 22.3 percent and 19.5 percent of respondents. Lastly, 14.5 percent of respondents equally cited religious reasons and too expensive as reasons why they could not use Islamic financial products and services.

Figure 2. Self-Reported Barriers to Islamic Financial Inclusion



Source: Authors' elaboration



4.2 Exploring Islamic Financial Literacy and Islamic Financial Inclusion in the Islamic Financial-Related Organisations in the Five Southernmost Provinces of Thailand

This section presents the analysis of qualitative data obtained from semi-structured interviews with informants who work at Islamic financial-related organisations in Thailand's deep south provinces. The first theme discusses the region's activities relating to IFL and IFI. The interviewees stated that their institutions have sent staff to mosques and Islamic schools to spread knowledge about Islamic financial products. Furthermore, the data collected reveals that iBank, through its Socio-Economic Development in Five Southern Provinces Department, runs programs to disseminate information about Islamic finance products to grassroots populations and community enterprise groups. As for Islamic cooperatives, it was found that after individuals apply to become members, they will be provided with an intensive Islamic cooperative program. According to one interviewee, the program was designed to instruct the members about regulations, the benefits of membership, and Islamic financial services. The data from the Islamic council of the province reveals that they have been providing services to settle disputes arising from property issues among Muslims. On the university side, the data shows that Prince of Songkhla University and Fateni University have faculties that offer bachelor's programs in Islamic finance studies. Moreover, based on the information obtained, Islamic financial-related organisations also post content and conduct live streams about Islamic finance on their websites and social media platforms. In addition, these organisations have collaborated in activities relating to IFL. For example, staff from Islamic financial institutions were invited to deliver Islamic financial talks at local universities. In another example, students from the Islamic finance studies program were sent for internships at iBank, Takaful companies, and Islamic cooperatives.

Regarding IFI, the data obtained shows that local advertising, such as radio and billboards, were the primary methods that Islamic financial-related organisations used to promote their financial products in the region. They also participated in booth exhibitions at shopping malls, mosques, Islamic schools, and Islamic events. It was also discovered that employees had assisted their organisations by posting details about the services and contact information on their personal Facebook, Instagram, and Line accounts. When examining each type of organisation, it was revealed that Islamic banks engaged in activities targeting specific population groups. These activities are presented below:

- (i) To raise deposits, iBank and BAAC Islamic Banking Fund launched savings products for Hajj.
- (ii) iBank has signed a “memorandum of understanding” with government agencies, state enterprises, and corporations to offer special profit rates for mortgages and personal financing products.
- (iii) BAAC Islamic Banking Fund promoted its credit products by targeting agriculturists and fishermen.

Islamic cooperatives have representatives in every village assigned to recruit new members and promote financial products to existing members. Non-bank Islamic financial institutions like Takaful and Islamic leasing companies utilise network marketing by appointing representatives to promote their financial services. Information from the provincial Islamic council shows that most IFI activities are associated with the two main categories of Islamic philanthropy: Zakat and Sadaqah. The data further indicates that both universities that offer Islamic finance studies have established Islamic funds to promote IFI. Interviewees stated that FTU has a fund that helps villagers access Halal credit, while PSU has a welfare fund that provides scholarships to students every year.



Furthermore, the gathered data indicates that Islamic financial-related organisations have also collaborated on IFI activities. It was found that Takaful operators use iBank as a channel to promote their financial products by designating iBank employees as brokers and distributing flyers at the branches. As part of another activity, FTU has made the IU Bank platform—a banking platform that connects to the BAAC Islamic Banking Fund—available to its students.

The next theme explores the factors that could limit IFL and IFI in Thailand's five southern border provinces. These insights are based on the knowledge and experiences shared by the interviewees. The data gathered from the interviews revealed that one of the primary limitations of IFL in the region is the lack of basic Islamic finance knowledge among the local Muslim population. Most informants attributed this to the inadequacy of the Islamic finance curriculum in Islamic schools. The second limitation pertains to the deficiency of Islamic finance expertise among the management and employees of organisations involved in Islamic finance within the region. The third constraint is the limited understanding of the Islamic financial system among religious leaders, particularly local Imams. The findings of this study are like what Yuslem et al. (2023) discovered among Indonesian Islamic scholars, as many of them are still unable to differentiate between conventional and Islamic financial systems. The final challenge is the shortage of professionals in Islamic finance within the educational system. Consequently, the market requires more educators with a background in Islamic finance to develop human resources who are well-equipped with IFL.

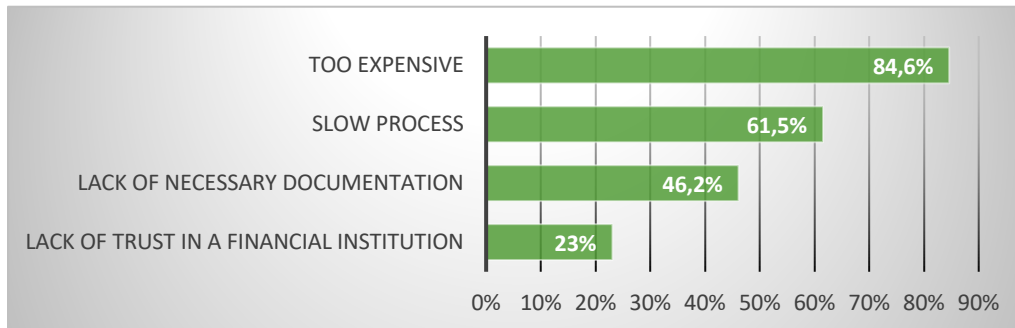
According to Figure 3, the most frequently cited limitation mentioned by interviewees was that many Islamic financial products and services are more expensive than their conventional counterparts. Despite the higher price, some informants believed religious people would pay a premium for access to Shari'ah-compliant financial services. However, based on the experiences of most informants from Islamic financial institutions, many people in the area prefer to use lower-cost credit services because they perceive the high cost as oppressive and burdensome. The following quotes provide more details:

“We Muslims often say that we need to stay away from the interest system, but when people come to ask for loans in Islamic financial institutions, they find that they are oppressed as the price is higher than the interest.”

“Many customers contact us for credit services, but once they know the cost, they decide not to use them because they find it difficult to repay.”

The second most highlighted limitation is the slow credit approval process of Islamic financial institutions, which cannot meet the needs of those who want to use the service. Additionally, the data shows that nearly half of the interviewees cited the lack of necessary documents as another limitation of IFI in the region. According to the opinions of these interviewees, documentation poses challenges for certain groups of people. For example, individuals in the grassroots often lack collateral-related documents, while vendors typically do not have financial records when they visit financial institutions to apply for credit. Finally, almost a quarter of interviewees viewed a lack of trust in Islamic financial institutions as a barrier to IFI in the area. According to the findings of the interviews, this lack of confidence is primarily associated with iBank and Islamic cooperatives. In the case of iBank, issues with bad debts have led people to question the institution's lenient credit approval principles, political intervention, and corruption within the organisation. As for Islamic cooperatives, the obtained data indicates that people still have doubts about the governance of these cooperatives, especially in the credit approval process, as they are not subject to the same level of strict regulation as formal financial institutions.

Figure 3. The main limitations of Islamic financial inclusion, as experienced by interviewees



Source: Authors' elaboration

The final theme explores interviewees' opinions on what should be done to increase the level of IFL and IFI among Muslims in Thailand's five southernmost provinces. According to the interview responses, three main strategies can be undertaken to facilitate the growth of IFL in the area. Firstly, all the interviewees suggested that the Islamic finance syllabus must be developed in Islamic educational systems. This recommendation is in line with previous literature, including that of Abdullah and Razak (2015) in Brunei, Lahsasna (2016) in Malaysia, and Khotiawan and Luthfiansyah (2017) and Sufyati (2021) in Indonesia, all of which support the inclusion of Islamic finance courses in their respective countries. The second strategy that could raise the level of IFL is to train and develop personnel who work in Islamic financial-related organisations to be knowledgeable and competent to disseminate IFL to the larger population. Some interviewees believed this strategy is urgent and important because, if it fails, the other strategies might be hard to implement. Lastly, interviewees primarily from Islamic banks, Islamic cooperatives, and non-bank Islamic financial institutions stated that enhancing public understanding of Islamic finance is necessary to increase the level of IFL in the region. According to these interviewees, seminars, conferences, and public talks are ways to raise consciousness among the target population.

The interviewees found a variety of strategies for increasing IFI among Thai Muslims in the five southern border provinces. To begin with, eleven of the thirteen interviewees believed that government support is required to expand the role of Islamic finance in enhancing financial inclusion. They agreed that more infrastructure and facilities should be needed to support the growth of Shari'ah financial services in Thailand. In addition, some interviewees noted that policies relating to the development of the Islamic financial system in Thailand must also be consistent and clear. The data further indicated that more than half of the interviewees recommended that Islamic financial institutions formulate marketing strategies to promote their existing products. These interviewees claimed that many people in the area are still unaware of the services each Islamic financial institution offers and how these services can meet their financial needs. The above recommendation is in line with the empirical studies of Basrowi et al. (2020), which concluded that to increase IFI, Islamic financial institutions should engage in more intensive marketing communication, particularly regarding religious understanding. Besides, interviewees felt product innovation could also play a critical role in expanding the use of Islamic financial services in Thailand's deep southern provinces. Accordingly, certain products that are equivalent to and distinct from conventional ones must be developed to meet the demands of residents. Finally, a few interviewees suggested that the country establish a central Shari'ah board to boost



public trust in Islamic financial institutions. According to these interviewees, having the central board issue rulings on Islamic financial products would be more credible than allowing each Islamic financial institution to do so.

5. Discussion

In this study, the quantitative approach was chosen as the primary method, with the qualitative approach serving as a complement. This section will further elaborate critical reflections on the key findings of quantitative data using detailed qualitative data. Regarding the current state of IFL in Thailand's deep south provinces, the findings from questionnaires show that most respondents are only familiar with fundamental Islamic financial knowledge. They still struggle to answer more complex questions about Islamic financial terms and products. These findings were consistent with the responses of many interviewees, who stated that most local Muslims correctly understand Islamic beliefs. Still, when it comes to Islamic finance, they are relatively ignorant. Moreover, although respondents were aware of the availability of Islamic financial services, data from the questionnaire show that they had a negative attitude toward the operations of Islamic banks, as they perceived no significant difference between Islamic and conventional banks. This result is consistent with information obtained from informants working in Islamic banks, where they frequently encounter customers who come to use the service and inquire about the percentage of the interest rate charged by Islamic banks.

Regarding Islamic financial behaviour, the questionnaire findings showed that most respondents could manage their finances in line with Shari'ah principles. However, the interview information disclosed that many Muslim customers who received microloans from iBank had issues with debt defaults. These results imply that some respondents may have exaggerated their financial behaviours. In summary, the level of IFL of the sample of Muslims in Thailand's five southernmost provinces can be classified as neutral to positive since the total score was just above the average. However, based on the scores of each dimension, advocates for financial literacy need to take measures and steps to improve Islamic financial knowledge and change the Islamic financial attitude of the Muslims in the area. They can apply their knowledge and understanding to support their Islamic financial behaviour by doing so.

Regarding the current trends of IFI in the area, the survey results showed that over half of the respondents were excluded from Islamic financial services. For those included, the most used products are deposits, while the number of respondents using Islamic credit, Takaful, and Shari'ah-compliant investment products is relatively low. This finding is consistent with information obtained from interview participants, who observed that Muslim customers of Islamic banks and cooperatives primarily use deposit services and show little interest in applying for loans. As for Takaful, despite having branches in every province, the proportion of policyholders remains small. Meanwhile, the informant from the Islamic investment firm reports that the company has almost no local customers. This may be attributed to the company not having offices and brokers operating in the area. In terms of Islamic financial usage, the statistical analysis demonstrated that only one-fifth of respondents used services with Islamic financial institutions over the past 12 months. The semi-structured interviews also showed that most Islamic financial institution clients have few transaction records. Therefore, Islamic financial institutions must encourage their clients to increase the frequency of use to create a transaction history that lenders can use as a basis for credit approval. In short, many Muslims in the five southernmost provinces are still unable to access and use the services of Islamic financial institutions. As a result, the low levels of people utilising Islamic financial products could pose a financial risk to Islamic financial institutions operating in the area.



This section discusses the obstacles to the growth of IFL and IFI in Thailand's five southernmost provinces. According to the quantitative data, most respondents were unfamiliar with Islamic financial terminology and the distinction between Islamic and conventional financial products. Many interviewees believed this happened because the Islamic educational system does not teach basic Islamic finance knowledge. Moreover, the results of the interviews revealed that not only the general population has insufficient Islamic finance knowledge but also many employees in Islamic financial institutions, religious leaders, and teachers in Islamic educational institutions. The study discovered that the lack of IFL among employees in Islamic financial institutions has limited their ability to explain and clarify the differences between Islamic and conventional finance and the products and services available to the clients. In addition, if staff members lack Islamic finance expertise, it will be difficult to implement policies that will assist the organisation in fulfilling its vision and mission. Since religious leaders are regarded as highly trustworthy by the local population, the lack of IFL would hamper the dissemination of Islamic financial knowledge in the area. Moreover, they may also provide false or misleading information to the public. Then, the scarcity of Islamic finance professionals in the educational system has also resulted in the lack of production and development of Islamic financial education materials, which is a serious hindrance to the growth of IFL in the area.

Regarding IFI, the data from the questionnaire and interviews revealed similarities and differences. The table below shows respondents in the five southernmost provinces reported a lack of funds, while interviewees cited high costs as the most significant barrier. From the information, economic conditions and prices play an important role in influencing the decisions to use Islamic financial services in areas where there is unrest and poverty. Meanwhile, both mentioned a lack of trust and documentation as significant reasons that could prevent the use of Islamic finance. The lack of confidence is challenging to address because it is associated with quality concerns about the supply side.

Regarding a lack of documentation, the questionnaire data revealed that Muslims who identified themselves as having this problem were mainly those with lower education levels and lower income groups. This is consistent with information provided by some interviewees, who perceived that these documents are related to collateral and financial records, which are crucial to demonstrating the ability to pay debts. On the other hand, only survey data indicated that access to Islamic financial services was hampered by being too far away. In contrast, most interviewees did not see physical distance as a potential barrier. Though Islamic financial institutions can offer their services in all areas, the absence of convenient channels like online services may be a significant reason why many respondents saw "too far away" as a barrier.

Furthermore, only interview findings revealed that the slow credit approval process was the main barrier, while this factor was not specified for respondents to select in the questionnaire. According to interview responses, the slow process was mainly caused by iBank's bad debt problems, which necessitated stricter credit approval measures. Additionally, Islamic cooperatives also experienced the issue of lagging credit approval, mainly due to limitations in the number of experts.



Table 4. Main Barriers to Islamic Financial Inclusion Based on Questionnaire and Interview Findings

Questionnaire Survey	Semi-structured Interviews
Not enough money	Too expensive
Lack of trust	Slow process
Too far away	Lack of documentation
Lack of documentation	Lack of trust

Source: Author Elaboration

Next, this section provides policy recommendations to relevant parties to boost IFL and IFI among Muslims in the five southernmost provinces of Thailand. Based on evidence gathered from quantitative and qualitative findings, the following are key policies that could increase the level of IFL in the area. Firstly, universities that offer Islamic finance courses in the area should take the lead in creating an Islamic finance curriculum and learning materials for the Islamic educational system. In addition, the curriculum should be structured by the target students at each level of Islamic educational institutions. Secondly, training courses and modules should be developed for personnel working in Islamic financial-related organisations in the area to convert theoretical knowledge into practical skills. Finally, all Islamic financial institutions should take the initiative as part of their corporate social responsibility to organise seminars to raise public awareness of the importance of Islamic finance throughout the region. It is anticipated that by the end of the workshops, participants will be able to comprehend the basic concepts of Islamic finance, recognise the advantages of using Islamic financial products, have greater trust in Islamic financial institutions, and possess the confidence to interact with them.

Based on the data gathered, policies that would increase the level of IFI in a Muslim minority country like Thailand require strong support from the government, particularly in terms of laws and regulations. The Islamic Bank of Thailand Act, enacted in 2002, is the only piece of legislation directing Islamic finance in Thailand. Therefore, the government should advocate passing new legislation to facilitate transactions for all Islamic financial institutions. Islamic financial institutions should innovate new products that cater to the needs of Muslim customers in the area. They can expand their customer base by offering the following products:

(i) **Islamic microfinance:** Islamic financial institutions should develop affordable microfinance products. They could, for instance, use Qard Hasan to facilitate their microfinance services with a small service charge. Another action that could be taken is introducing Ar-Rahnu, which requires a lower pledge, to channel credit to low-income people.

(ii) **Islamic venture capital:** funds could be established using Shari'ah-compliant contracts such as Musharakah or Mudarabah to invest in businesses. If Islamic venture capital is successfully established in the area, it could play an essential role in alleviating the financial constraints of local SMEs.

(iii) **Islamic Derivative:** An Islamic derivative called Bai-al Salam could be introduced to provide working capital to agricultural workers. As of now, the findings of the interviews indicate that many of them require a loan from the informal system to support their production. Thus, if Bai-al Salam can be implemented, they can receive Shari'ah-compliant financial assistance.



Regarding the development of Islamic financial products, universities that offer Islamic finance courses in the area could make a significant contribution by researching to identify which products are compatible with the community's needs. Furthermore, the universities could establish an information centre to collect statistical information about the Islamic financial sector in the five southern border provinces. The collection of such information could be essential in enabling those involved to create Islamic financial products that meet the demands of the target customers.

Concerning religious organisations, the Islamic Provincial Councils should use the function of Islamic almsgiving like Zakat to facilitate the transfer of wealth from the rich to the poor. Now, it has been discovered that the collection of Zakat on wealth at the provincial level is not well organised, and information about the number of people eligible to receive Zakat is also ambiguous. If they can successfully manage the Islamic redistributive mechanism and make it available to all recipients, they can create a broader impact on financial inclusion, particularly among the grassroots population.

According to the recommendations, the sustainability of initiatives toward IFL and IFI in Thailand's deep southern provinces requires collaboration and coordination among stakeholders, including the government, academics, Islamic financial institutions, religious organisations, and Islamic educational institutions. Therefore, it is recommended that an MOU should be signed among these parties to enable the effective implementation of such initiatives. The MOU should explicitly state that all parties will work together to organise IFL programs in a well-defined manner, including details on budgets, objectives, timelines, indicators, and the roles of each organisation. Hence, if these recommendations are implemented appropriately, the Islamic financial sector would be in a better position to meet the demands of their prospects and help the country achieve financial deepening.

6. Conclusion

Based on the empirical findings, quantitative and qualitative data were analysed and discussed to illustrate the current trends of IFL and IFI in Thailand's deep southern provinces. Subsequently, the research findings displayed the obstacles to the growth of IFL and IFI, followed by the recommendation of policies that could be pivotal in ensuring the sustainability of Islamic finance in the region.

It can be stated that this study has successfully addressed research gaps in the literature from contextual, theoretical, and methodological perspectives. On the contextual side, this study contributes to existing knowledge by collecting considerable information related to IFL and IFI within Thailand's Islamic financial industry. Given that Thailand is a Muslim minority country, this information could be utilised as a tool to promote financial opportunities for all groups of people while also stimulating economic growth in the wider community. Regarding the theoretical point of view, this study contributes significantly to the current literature on IFL assessment by formulating a framework that covers the dimensions of Islamic financial knowledge, attitude, and behaviour. The clear framework then aided the study in developing the measurement indicators. From a methodological perspective, this study has enhanced the understanding of IFL and IFI by using a mixed-method approach to collect and analyse data. Including different perspectives in single research has also assisted this study in drawing thorough conclusions about the subjects.



The current study, however, has limitations primarily stemming from the COVID-19 pandemic and the restrictions imposed. These restrictions prevented the researcher from conducting face-to-face interviews with informants. Due to the lack of face-to-face interviews, the researcher may have missed the depth of insights that could have been gleaned from these encounters. It was also difficult to contact any Islamic financial-related organisations during the lockdown because none of them were open. The researcher had to use the snowball technique to collect information from the participants. Still, as a result, the time it took to schedule each interview session was longer than usual.

This research has recommendations that could provide possibilities for future studies. First, this study examined the level of IFL and IFI among Thai Muslims in the five southernmost provinces; the findings are limited to only one region and may not apply to other areas. Therefore, future research that includes a sample of Muslims nationwide should be conducted to generalise the findings and enable a more focused policy design. Second, further research could investigate the level of IFL and IFI among vulnerable groups. A study aimed at gathering this data may help policymakers advance their understanding and develop effective strategies for them. Third, the study used a cross-sectional design that only collected data at one point. For future research, it is highly recommended that relevant agencies should adopt a longitudinal study to measure IFL and IFI over an extended period. Collecting data in this manner would make it possible to determine whether there is a notable change in the trends. Finally, despite the use of mixed methods in this study, only primary data were utilised; thus, future research could employ a mixed methods design with a combination of primary and secondary data to increase the credibility and depth of the research findings.

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Zakāh as a Financial Resource for Development: Alleviating State Debt Burden and Fostering Economic Sustainability

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Abstract

This study aims to explore the potential utilization of *zakāh* funds to meet certain developmental objectives of the state, thereby releasing its available financial resources to reduce state indebtedness. The significance of this research lies in the fact that the indirect role that *zakāh* can perform in reducing the state's debt burden has not received much attention and needs further analysis to formulate a mechanism on how *zakāh* can play an effective role in indirectly supporting the state in reducing its indebtedness. The study employs a descriptive-analytical method to explain the reality of *zakāh* and assess its use as an indirect tool in reducing the state's debt burden, drawing on classical jurisprudential sources and contemporary economic studies. The findings indicate that the state cannot be classified among those incapable of settling their debts, as the eligible recipients in this category are individuals. However, the study suggests including infrastructure projects and military spending under the categories of spending in the cause of Allah and on stranded travellers. This approach could alleviate the state's burden in these areas and free up financial resources to reduce indebtedness.

Keywords: *zakāh*; state indebtedness; poverty alleviation; infrastructure projects; military spending; financial resources



1. Introduction

The contemporary economic landscape is fraught with challenges, among which the burden of state indebtedness looms large. Yet, despite its pervasive impact, the potential for leveraging *zakāh* funds to alleviate this burden remains largely unexplored. This study seeks to address this critical gap by examining the untapped potential of *zakāh* to tackle the pressing issue of state indebtedness. At present, the urgency of this inquiry may not be readily apparent. However, a closer examination reveals a confluence of factors that underscore the gravity of the situation. State debts strain national economies, impair sustainable development efforts, and exacerbate socio-economic inequalities. By reframing *zakāh*'s role from a mere charitable obligation to a strategic instrument for debt reduction, we can unlock a pathway towards financial stability and social prosperity. Thus, the central problem that motivates this study is the pervasive issue of state indebtedness and the underutilization of *zakāh* funds in addressing this pressing challenge. By elucidating the significance of this problem statement, we aim to underscore the critical importance of exploring innovative solutions and harnessing untapped resources to foster economic resilience and equitable development. Through a comprehensive analysis drawing on traditional Islamic principles and contemporary economic insights, this study aims to shed light on the transformative potential of *zakāh* in mitigating the burden of state indebtedness. By doing so, we contribute to the academic discourse and offer practical insights for policymakers and practitioners seeking sustainable solutions to pressing economic challenges. The contemporary issue of state indebtedness poses significant challenges to national economies, sustainable development efforts, and socio-economic equality. Various studies, such as (Salmon, J., 2021), (Pinto, B. & Gill, I., 2024), (IMF Development Committee, 2022), (Siddique, A. Selvanathan, E. A. and Selvanathan, S., 2016) and (Swamy, V., 2020) have shown that high levels of public debt can hurt the economic growth and development of the state. The challenging nature of effectively addressing such a pressing issue necessitates a closer analysis of all possible mechanisms contributing to reducing state indebtedness. One such mechanism, which is the focus of this study, is *zakāh* and the extent to which it can play a role in addressing the ever-growing problem of state indebtedness. In this regard, it is important to point out that numerous studies have dealt with various aspects of *zakāh*, such as its use as a tool for poverty alleviation (Razak, 2020) or the distribution of *zakāh* funds (Ahmad, K. and Yahaya, M.H., 2023), or the issue of ensuring *zakāh* compliance (Bin-Nashwan, S.A., Abdul-Jabbar, H., Aziz, S.A. and Sarea, A., 2021), or its potential for reducing inflation (Abū Tāhā, 2012), or its use to foster small business entrepreneurship and support economic growth in Muslim-majority countries. (Hoque, N., Khan, M.A. & Mohammad, K.D., 2015). Nevertheless, the potential for leveraging *zakāh* funds to alleviate the financial strain of indebtedness on the state remains largely unexplored. This study aims to address this critical gap by investigating the untapped potential of *zakāh* as a strategic instrument in addressing state indebtedness, addressing the following research questions:

RQ1: To what extent can *zakāh* be directed to solve the problem of state indebtedness from a jurisprudential perspective?

RQ2: To what extent can *zakāh* funds be directed to solve the problem of state indebtedness from an economic perspective?

Our research has the following objectives: explain the role of *zakāh* in solving the problem of state indebtedness from a jurisprudential perspective and explain the role of *zakāh* in solving the problem of state indebtedness from an economic perspective.



2. Literature review

While a significant body of literature exists regarding the fundamental principles of *zakāh*, the efficacy of *zakāh* in poverty alleviation and wealth redistribution, a notable lack of studies specifically addressing its potential to reduce state indebtedness. In this regard, one recent study has shown that the prevailing discourse on *zakāh* largely revolves around three predominant sub-themes, namely the implementation of *zakāh* in poverty alleviation, ensuring *zakāh* compliance, and the distribution of *zakāh* funds. (Apriliyah, R. P., & Fianto, B. A., 2022).

One notable study within the first sub-theme explored the efficiency of *zakāh* and *waqf* in wealth distribution and their impact on poverty alleviation in countries like Malaysia. The study emphasized the humanitarian and socio-political value of *zakāh*, highlighting its effectiveness in improving socio-economic conditions (Razak, 2020).

Another study focused on the second sub-theme, examining the factors influencing *zakāh* compliance. This study integrates various aspects such as religiosity, trust, credibility, and accountability into a cohesive model, showing that *zakāh* compliance is significantly influenced by the credibility of *zakāh* institutions and the trust that individuals place in these institutions. Furthermore, the study emphasizes the role of perceived accountability and the effectiveness of *zakāh* management in ensuring compliance, providing valuable insights for policymakers and *zakāh* institutions to enhance compliance rates and optimize *zakāh* collection and distribution. (Bin-Nashwan, S.A., Abdul-Jabbar, H., Aziz, S.A. and Sarea, A., 2021).

Another study that can be classified under the third sub-theme focused on the impact of financial technology (fintech) adoption on the efficiency of *zakāh* distribution among the needy in Malaysia. This study identified key factors influencing fintech adoption, improving *zakāh* distribution efficiency. The findings suggest that enhancing fintech adoption can significantly benefit *zakāh* institutions by ensuring faster and more accurate distribution to beneficiaries. (Ahmad, K. and Yahaya, M.H., 2023).

Other studies explored the role of *zakāh* in addressing inflation (Abū Ṭāhā, 2012) by shedding light on inflation, its causes, types, and effects, as well as the role of *zakāh* in combating and mitigating it. The study concludes that *zakāh* is an important financial tool that can significantly address inflation. It is an effective tool for distributing wealth fairly according to priorities and needs. Moreover, it efficiently combines production elements and effectively addresses wealth accumulation by directing savings towards investment. The study also reveals that localizing *zakāh* contributes to the distribution of surplus cash according to production trends and works to increase the overall GDP, especially for the population segment paying *zakāh*.

Another similar study focused on the role of *zakāh* in addressing inflation from a juristic and economic viewpoint (Al-Qar'ān, 'Abd al-Bāsiṭ; Al-Ḥakīm, Munīr Sulaymān, 2015). The study consists of four sections. The first section discusses the concept of *zakāh*, its ruling, the evidence supporting it and the types of wealth subject to *zakāh*. The second section deliberates on the importance of *zakāh* and its effects on individuals, society, the state and the Muslim nations at large, in addition to discussing its impact on the financial and economic policies. The third and fourth sections highlight the policy of collecting and distributing *zakāh* and its role in addressing monetary inflation.

Finally, several studies discussed the broader economic benefits of *zakāh*, such as the positive role of *zakāh* in addressing issues such as poverty, unemployment, wealth accumulation, and other problems that exacerbate the economic hardship of individuals and deepen economic underdevelopment within a nation (Muḥammad, Falāḥ; Samā'ī, Ṣalīḥah, 2012), or the fostering of small business entrepreneurship and supporting economic growth in Muslim-majority countries. (Hoque, N., Khan, M.A. & Mohammad, K.D., 2015).



While the above-mentioned themes are essential, they fail to address the core focus of our inquiry directly. Nevertheless, by embracing the exploratory nature of our investigation, we aim to explore fresh perspectives and insights on the issue of using *zakāh* to reduce the state's indebtedness, thereby enriching the scholarly dialogue and advancing our understanding in this domain.

3. Methodology

The study employs a descriptive-analytical method to delve into the untapped potential of utilizing *zakāh* as a strategic tool in alleviating state indebtedness. By adopting this approach, we aim to unveil novel insights and perspectives on the viability of *zakāh* in addressing this pressing economic challenge. Our study relies on several sources, ranging from classical jurisprudential texts to contemporary economic studies, to comprehensively understand *zakāh's* role in reducing state indebtedness. Delving into the depths of classical Islamic scholarship and contemporary economic discourse, we endeavour to unravel the intricacies of *zakāh's* application within the context of the state's modern fiscal challenges. Through meticulous analysis and synthesis of diverse perspectives, our research seeks to identify pathways toward leveraging *zakāh* as a catalyst for financial stability and sustainable development, thus contributing to the discourse on effective economic policymaking in Islamic finance.

4. State Revenues and Expenditures from a Traditional and Islamic Perspective

In general, countries, specifically Islamic states, are keen on securing their financial resources and increasing them to cover their increasing expenses. This preliminary section will state the revenues and expenditures of the Islamic state.

4.1 State revenues and expenditures from a traditional perspective

General revenues are all the resources the state obtains, whether cash or non-cash, regular or irregular, and whether they are obtained in exchange for something or without compensation. (Qahf, 1987). State revenues are divided into regular revenues and irregular revenues. (Khalāfi, 2015).

- Regular revenues are obtained by the state periodically and include taxes, fees, and income from state properties.
- Irregular revenues are irregularly collected, and the state does not receive them regularly, such as public loans, which are the amounts that the state receives from others, whether individuals, organizations, or countries, with a commitment to repay it, as well as currency issuances, whereby the state is forced to issue a quantity of banknotes to cover the deficit. Furthermore, another stream of revenues is grants and donations, which the state receives as aid and assistance to implement some projects or cover the budget deficit.
- Public expenditure is defined as the disbursement of a certain amount by one of the public authorities to fulfil a public need, or it is money that comes out of the state treasury to meet a public need. Public expenditures are characterized by their continuous increase. Any analyser of any country's budget notices a continuous increase in the size of public spending. This increase is due to various reasons, including actual and nominal reasons.



The actual reasons increase the quantities of goods and services directed to satisfy the public needs. The reasons for the actual increase are economic reasons, such as public projects and financial support for national industry; financial reasons, due to the ease of resorting to loans; and administrative reasons, such as the expansion of the administrative apparatus. The nominal reasons, on the other hand, mean the inflation of expenditure figures without an actual increase in production. The reasons for such a phenomenon are the deterioration of the currency value, differences in budget preparation methods, and increased population (Khalāfī, 2015).

4.2 State revenues and expenditures from an Islamic perspective

The financial resources of an Islamic state are divided into periodic and non-periodic resources. This division is considered one of the common modern divisions among contemporary finance scholars.

The periodic financial resources include the *jizya*, *kharāj*, and *zakāh*. (Al-Ta‘āmnah, 2003).

The *jizyah* is a tax imposed on the non-Muslims, whether they are from the people of the Book or the Magi. It is named *jizyah* because it protects the individual from being killed, i.e., it is a substitute for their blood, since they will be under the protection of the Islamic state. *Jizyah* is one of the financial resources of the Islamic state and one of the financial burdens borne by non-Muslims since they are citizens of the same country. The obligation to pay it is derived from the Qur’ān (Surat Al-Tawbah, verse 29): "Fight those who do not believe in Allah or the Last Day and who do not consider unlawful what Allah and His Messenger have made unlawful and who do not adopt the religion of truth from those who were given the Scripture - [fight] until they give the *jizyah* willingly while they are humbled".

Secondly, *kharāj* is financial resource based on *ijtihād* for which there is no evidence in the Qur’ān or Sunnah. It was established during the era of ‘Umar ibn al-Khaṭṭāb, and it is of two types: *kharāj al-waḥīfah*, which is a fixed amount of agricultural produce, and *kharāj al-muqāsamah*, which is a specific share as a percentage of the land's output.

Thirdly, *al-‘ushūr* is a fee levied on goods for sale that enter Muslim territories. Some scholars regard *al-‘ushūr* as a tax imposed on goods exported from Muslim countries, imported into Muslim countries, or transported by traders between its provinces. In general, it is similar to customs duties.

Finally, *zakāh* is obligatory on adult Muslims who possess wealth above a specific threshold and fulfill certain conditions. The threshold differs depending on the type of zakatable wealth. The scholars have agreed that *zakāh* is obligatory on four types of wealth: the grazing livestock, the earth's produce, gold and silver, and goods for sale. The Holy Qur’ān has specified the areas of expenditure of *zakāh*. *Zakāh* funds are not mixed with other state resources but have a special budget and are disbursed for specific purposes.

Non-periodic financial resources: These funds are not characterized by periodicity and regularity. Among the most important of these are loot and booty, which depend on certain factors; estates with no heirs; and voluntary and mandatory alms that contribute to the state's budget (Al-Ta‘āmnah, 2003).

Public expenditures in the Islamic state include the President's allowances, workers' compensation, military expenditures, judicial expenditures, immigrant expenditures, expenditures for the establishment of the state headquarters, and other expenses (Al-Kāyid, 2015). Thus, the researcher concludes that there are multiple resources for states in general and Islamic states in particular, and they are used to cover the various expenses and expenditures of the state.



Zakāh is considered one of the financial resources in the Islamic state, but it has a separate budget from the state budget and has its deserving beneficiaries. One of the state's resources is public loans, which a state resorts to to cover its expenses in the event of imbalances between its resources and expenditures. Public loans are the main cause of state indebtedness.

5. Indebtedness, Its Categories, Causes, and Economic Effects

To address whether *zakāh* can be directed to solve the problem of state indebtedness, we must first discuss the concept of debt, its categories, causes, and economic effects.

5.1 The concept of indebtedness and its categories

5.1.1 The concept of indebtedness

The debt crisis is an extension of a broader economic crisis described as stagnation in the economies of Islamic countries. Therefore, this is not an emergency, but it is related to the structure of these economies. The deterioration in the performance of these economies has led to resorting to external and internal debt to cover the deficit. The continuation of this deterioration has made debt an inevitable matter and an essential part of the indicators of these economies (Al-Zi'bī, 2016)

State indebtedness can be defined as the total financial obligations of the state and its affiliated institutions to be paid within an agreed-upon timeframe with the other party, which may be the International Monetary Fund, the World Bank, or regional banks. Resorting to external borrowing means committing to paying back astronomical amounts valued in one of the strongest foreign currencies, the American dollar (Abjmah, 2019).

5.1.2 The categories of indebtedness

Debt can be divided into two categories, namely external debt and internal debt

External debt: It can be defined as the total amount of debt due within a specified period compared to the value of obligations contracted, which binds the country's citizens to pay the value of those debts to non-residents along with any accrued interest if any. (National Economic and Social Council, 2000). It can also be defined as the complete and sufficient knowledge of the external financial obligations of the state, including government debts, central bank debts, debts of public and private institutions, whether guaranteed or unguaranteed by the government. It also includes other financial operations of economic agents, such as direct investment. (Al-Zi'bī, 2016).

"Internal debt: It can be defined as the debt owed by the government and its public institutions to the national economy. (No author, 2004).

5.2 Causes of indebtedness and economic characteristics of countries suffering from indebtedness.

5.2.1 Causes of indebtedness

The causes of indebtedness can be divided into external and internal factors, which can be explained as follows:

External factors: Countries' economies have been exposed to a series of unexpected shocks and have failed to overcome them, leading to the problem of indebtedness. The most important of these factors are as follows (Al-'Asr, 1996):



- Economic recession experienced by developed countries: Advanced industrial countries experienced economic recession in the early 1980s, and as a result, these countries followed protectionist policies for their products, weakening the competitive ability of developing countries' exports against the exports of developed countries.
- Inflation: This means an increase in demand over the total supply, and one of its most significant manifestations is the imbalance in the value of cash, thus leading to an increase in prices.
- Policies related to foreign aid, investments, and loans: These policies and aid provided by developed countries are among the means of bridging the gap between savings and investment in these countries. However, it has been observed that these resources:
 - It may be directed towards satisfying consumer needs rather than implementing new investments whose returns contribute to servicing debt burdens.
 - Foreign aid is often linked to political factors, enabling donor governments to have some influence over recipient governments.
 - Technical aid has, in many cases, led to an increase in dependence on foreign markets to purchase production equipment and supplies, which in turn leads to external borrowing.
 - High volatility of petroleum price: The increase in petroleum prices led to the availability of funds for lending from international banks, making it easy to lend to developing countries, especially since the price of primary materials did not rise to the same degree as the price of industrial products.
 - Policies of international banks.
 - Monetary policies of the United States of America.
- Internal factors: Some of the domestic economic policies of developing countries contributed to the emergence and exacerbation of the problem of external debt. These policies led to overborrowing from abroad to maintain the balance of payments, and then these wrong policies led to difficulty servicing external debts. The most important reasons for this are as follows (Al-'Asr, 1996).
- Poor management of external borrowing: External debt is not managed efficiently in developing countries to ensure proper contracting of debt and its repayment. In many cases, excessive borrowing from abroad is observed, with foreign loans used to finance consumption spending instead of investment spending. Furthermore, feasibility studies for loans may not be conducted regarding their uses, terms and conditions, and guaranteeing the servicing of such loans.
- Low saving rates: Developing countries are characterized by their inability to mobilize the local savings required for developmental investments, which leads to dependence on foreign loans. In addition, the appropriate investment environment may not be available, so some citizens of developing countries resort to investing their resources in developed countries.
- Exchange rate policies: Valuing local currencies higher than their market value is one of the main causes of the emergence and growth of the debt crisis, as it leads to a relative decrease in import prices and a relative increase in export prices. This leads to an increase in spending on foreign goods and a decrease in demand for domestic exports.



In addition, the increase in inflation rates due to the rise in imported goods prices and the inability of the national production apparatus to meet demand for local goods worsens the situation.

- Economic development policies: Most developing countries have followed development policies to replace imports without developing local industries that provide machines and production supplies. This has led to dependence on foreign countries to provide them. Due to these countries' low foreign currency earnings, external loans were relied upon to finance the purchase of these supplies.
- Adoption of stabilization and economic liberalization policies: The application of stabilization policies recommended by the International Monetary Fund has led to economic recession in many countries that have implemented them. This recession does not allow the economy to service external debt, and some economists have indicated a relationship between economic liberalization policies and the burden of external debt.
 - Military spending.
 - Increase in population growth rates.

5.2.2 *Economic characteristics of countries suffering from indebtedness*

- Some economists believe that external loans are used in production, export development, and import replacement, ultimately increasing national income and savings. This approach will have a positive impact on the balance of payments. However, others closer to reality believe that external loans are not used effectively and are not directed towards productive sectors but are passed on to future generations as a burden (Al-Zi'bī, 2016).
- Economic Dependency: Economic dependency originated in Arab countries since the beginning of colonization, and it continued after the reliance of Arab countries on external debt (Al-Zi'bī, 2016).
- The increase in consumption as a percentage of gross domestic product leads to a decrease in savings from domestic production, which is necessary to finance developmental investments, creating a need for external borrowing. Some countries have witnessed an increase in consumption over the value of gross domestic product, as in the case of Somalia, Lebanon, and Yemen. This deficit in the balance of payments, which resulted from decreased agricultural production considering increasing population growth rates, led to external indebtedness.
- The existence of a continuous budget deficit in government budgets leads to internal and external borrowing or both, which contributes to increasing external indebtedness.
- The decrease in the exchange rate index: Countries that suffer from a deficit in the balance of payments resort to reducing their currency exchange rates to lower the prices of their products and thus increase their competitiveness in global markets. They also increase the prices of imports measured in local currency to reduce demand for them in the local market.
- Shortcomings of planning agencies: This is represented by the lack of coordination between sectoral programs and the neglect of human resource development, basic infrastructure, and institutional structure, which results in the accumulation of technical expertise, thus reducing reliance on foreign sources (Al-'Asr, 1996).



6. The Concept of Zakāh and the Possibility of Redirecting Zakāh Funds to Other than Its Beneficiaries

After briefly discussing debt and its causes, the researcher will discuss *zakāh* and the possibility of redirecting it to purposes other than its designated purposes, as explained in the following sections.

6.1 The concept of zakāh and its beneficiaries

6.1.1 Linguistic meaning of zakāh

In Lisān al-‘Arab, it is stated that "the linguistic origin of the word *zakāh* is purification, growth, and praise. All of these meanings have been used in the Qur’ān and ḥadith". (Al-Miṣrī, 1968). The phrase "*zakkā mālahu tazkiyatan*" means he paid his *zakāh*, while the phrase "*zakkā nafsahu*" means he praised it. Moreover, the verse "And purify them thereby" (Qur’ān 9:103) refers to *zakāh* as a means to purify individuals and their wealth. The word also means to give charity. Furthermore, the phrase "*zakā al-zar‘ yazkū zakaān*" means to grow. (Al-Rāzī, 1986) Finally, the *zakāh* of wealth is its purification and when the word *zakāh* is used concerning crops, it means growth and increase. (Al-Ṣāhib, 1994).

Zakāh is due on all wealth that grows or is capable of growth. Growth is not limited to wealth alone, as *zakāh* simultaneously ensures psychological and material growth for the rich who abide by it and the poor who deserve it (Abū ṭāhah, 2012). *Zakāh* purifies all that humans accumulate in wealth and adds blessings to their wealth. It also purifies the rich person's soul from stinginess and greed.

6.1.2 Terminological meaning of zakāh

Zakāh terminologically refers to a right that must be paid from a specific portion of one's wealth for specific categories at a particular time while not obtaining any personal benefits from it so that it is given for the sake of Allah Almighty. (Al-‘Ānī, 1999).

6.1.3 The beneficiaries of zakāh

Allah Almighty has listed in His Noble Book the eight categories of the recipients of *zakāh*: "The alms are only for the poor and the needy, and those who collect them, and those whose hearts are to be reconciled, and to free the captives and the debtors, and for the cause of Allah, and (for) the wayfarers; a duty imposed by Allah. Allah is Knower, Wise." (Qur’ān 9:60).

The intended meaning of these eight categories can be briefly explained as follows. (No author, 2003).

First and second categories: The poor and the needy are those in need who do not have anything or have only a small amount that is barely enough for their needs. There is a difference of opinion among scholars as to which one is more in need.

The third category is those who work in collecting and distributing *zakāh* are the people who collect and distribute *zakāh*. Being poor is not a condition for them to receive *zakāh*; they may receive it even if they are wealthy.

Fourth category: Those whose hearts are to be reconciled are the new converts to Islam who are given *zakāh* to reconcile their hearts. Most scholars believe this category is still valid and has not been abrogated.



Fifth category: Muslim slaves who are seeking emancipation and Muslim prisoners of war are included in this category.

The sixth category is debtors, who cannot pay off their debts.

Seventh category: For the sake of Allah, which means spending *zakāh* on voluntary fighters in Jihad, as well as spending it for the benefit of the war and all that is needed for the cause of Jihad.

Eighth category: The wayfarer is a traveller who has run out of money and is given enough to reach his destination.

After listing the specific beneficiaries of *zakāh* in the Noble Qur'ān, the question that could be asked is whether *zakāh* be directed to other than these recipients, and is the state considered one of these recipients? This will be clarified in the following sub-section.

6.2 *The ruling on the possibility of directing zakāh to other than its intended recipients*

It is not permissible to pay *zakāh* to anyone other than the eight specified categories, and this is the consensus of the scholars of the four schools of Islamic jurisprudence, namely the Ḥanafī, Malikī, Shafī'ī, and Ḥanbalī schools. Ibn Qudāmah mentioned this consensus by stating: "We do not know of any disagreement among the scholars regarding the impermissibility of giving *zakāh* to anyone other than these categories, except for what is narrated by 'Atā' and Al-Ḥasan, that whatever is given for bridges and roads is considered as an accepted charity". (Ibn Qudāmah, 1997). Al-Shirbīnī said, "Allah's saying, "*Zakāh* is only for the poor and for the needy and for those employed to collect [*zakāh*] and for bringing hearts together [for Islam] and for freeing captives [or slaves] and for those in debt and the cause of Allah and the [stranded] traveller - an obligation [imposed] by Allah. And Allah is Knowing and Wise." (Surat Al-Tawbah, 9:60) proves that *zakāh* cannot be spent on anyone other than these categories, which is the consensus (Al-Shirbīnī, 1994).

Evidence from the Qur'ān:

Allah Almighty said, "*Zakāh* expenditures are only for the poor and for the needy and for those employed to collect [zakat] and for bringing hearts together [for Islam] and for freeing captives [or slaves] and for those in debt and for the cause of Allah and the [stranded] traveller - an obligation [imposed] by Allah. And Allah is Knowing and Wise." (Qur'ān, 9:60).

The above-mentioned verse has two aspects:

The first aspect is that Allah the Almighty said, "*Zakāh* expenditures are only for..." (Qur'ān, 9:60). The use of the word "only" limits *zakāh* to the mentioned categories and excludes others. Therefore, the verse means that *zakāh* is only for the groups or categories specified in the verse. (Al-'Aynī, 2000; Ibn Qudāmah, 1997; Al-Bahwatī, 1968).

The second aspect is the definition of *zakāh* with the preposition "for," which implies that *zakāh* is intended exclusively for the eight categories specified in the verse. Even if it were possible to spend *zakāh* on other groups, they would be entitled to only some of it, not all (Al-Bahwatī, 1968).

The majority of Muslim jurists agree (Ibn 'Abdīn, 1992; Al-Kāsānī, 1986; Ibn Qudāmah, 1983; Al-Shīrāzī, 1995; Ibn Qudāmah, 1997; Ibn Juzayy, 1971; Ibn Al-'Arabī, 2003) that it is not permissible to spend *zakāh* on anyone other than those specifically mentioned by Allah, such as building mosques, bridges, canals, wells, maintaining cemeteries, entertaining guests, building walls, preparing for *jihād*, such as manufacturing warships and buying weapons, and any similar expenditures, which are not mentioned in the verse. However, any type of good deed that seeks to please Allah falls under the broad category of "for the cause of Allah" and could include all those who strive to obey Allah and perform good deeds, provided they are in



need. Some Ḥanafī scholars interpreted the category "for the cause of Allah" to include seeking knowledge, even if the seeker is rich. Furthermore, Anas and Al-Hassan said: "Whatever we spend on bridges and roads is considered an accepted charity".

On the other hand, Mālik said: "There are many ways to serve the cause of Allah, but I do not know of any difference of opinion that the meaning of the phrase 'for the cause of Allah' in this context is *jihād*" (Al-Zuḥaylī, 1985).

The scope of *ijtihād* (independent reasoning) in determining *zakāh* recipients is narrow and almost limited to determining what falls under each category of recipients, examining some of its sources, formulating criteria for determining priorities about its distribution, and discussing contemporary issues related to it (Yassīn, 2016).

6.3 The possibility of using *zakāh* funds to repay the national debt

After explaining the ruling that *zakāh* funds cannot be spent on anything other than the eight designated categories, the researcher investigates whether the state can be considered a debtor and whether *zakāh* funds can be used to repay the state's debts.

First: Can the state be considered debt-ridden and therefore can be included as one of the *zakāh* recipients

Individuals burdened with debt fall under the sixth category of *zakāh* recipients as defined by the Quranic verse (And those burdened with debt). The Ḥanafī school of jurisprudence regards an individual who is in debt and does not own the minimum amount of wealth required to pay *zakāh* after paying his debt as falling under this category. Two types of debtors fall under this category (Ibn Nujaym, 1997; Ibn ‘Abdīn, 1992).

The first type is those who take debt for their benefit, such as borrowing money for personal expenses like clothing, marriage, medical treatment, building a house, buying furniture, marrying off a child, or accidentally damaging someone else's property. (Al-Qaraḏāwī, 2006).

The conditions for giving *zakāh* to a debtor who benefitted himself from the debt. (Al-Qaraḏāwī, 2006).

- The debtor must be in need to pay off his debt; if he is wealthy and able to pay it off with his own money or assets, he is not eligible to receive *zakāh*.
- The debt must have been incurred for a lawful or permissible purpose. If it was incurred for a sinful purpose, such as buying alcohol or committing adultery, the debtor is not eligible for *zakāh*. Likewise, if the debtor has been extravagant in spending on himself and his family, even if it was on permissible things, he is not eligible for *zakāh*. It is forbidden for a Muslim to be extravagant in permissible things to the extent of incurring debt.
- The debt must be due immediately. If it is a deferred debt, there is a difference of opinion among scholars as to whether the debtor is eligible for *zakāh*. Some say he is eligible because he is still considered a debtor, while others say he is not eligible because he does not currently need the money to pay off the debt.
- The debt must be one, which can result in the debtor's imprisonment. Thus, a son's debt to his father and the debt of an insolvent debtor are also included.

The second type of debtors who are eligible for *zakāh* are those who owe a debt for the benefit of someone else, such as someone who pays an amount of money to settle a dispute between two rivalling groups or tribes (Al-Qaraḏāwī, 2006).



In conclusion, the *zakāh* given to debtors is intended for individuals who have incurred a debt for their benefit or the benefit of others, and the state cannot be included in this category.

Second: The state's authority over the *zakāh* funds

Zakāh is a divine obligation and the state's responsibility to collect and distribute it. The nature and legal status of *zakāh* dictate that it should be collected using a system and transferred to the Muslim Treasury "*Bayt al-māl*" or those entrusted with such affairs. The evidence supporting the state's role in collecting and distributing *zakāh* is numerous and explicit in the Qur'ān and Sunnah. The evidence from the Qur'ān is the verse, "Take, [O, Muhammad], from their wealth a charity by which you purify them and cause them to increase and invoke [Allah's blessings] upon them. Indeed, your invocations are reassurance for them. And Allah is Hearing and Knowing." (Surat Al-Tawbah, verse 103). One of the reasons for delegating *zakāh* affairs to the state is to ensure that justice is achieved comprehensively and fairly, as the state is most aware of the deserving recipients, their needs, and who has received *zakāh* and who has not (Al-'Abd al-Latīf, 2001). Thus, it becomes clear that the responsibilities of the state are to collect and distribute *zakāh* to the rightful recipients so that justice is established among them. From this, it becomes clear that the state has no control over the *zakāh* funds, except for what benefits its rightful recipients as determined by Sharī'ah.

Third: Regarding the relationship between the *zakāh* funds and the state's budget

Zakāh is one of the resources of the state's treasury, which generally ties it to the budget. As for expenditures, the expenses of the state differ depending on the resources available in the country. However, there is no relationship between the *zakāh* funds and the state's budget since there are differences in how they are spent. *Zakāh* has a special and independent budget, and the jurists do not allow mixing *zakāh* funds with other resources. The proceeds of *zakāh* are disbursed to its rightful recipients as specified by the Qur'ān, and it performs its primary function of establishing social solidarity (Al-Mawlī, 1998). After explaining the ruling on directing *zakāh* funds to other than its specified recipients, the extent to which the state can be considered one of the recipients of *zakāh*, and the nature of the relationship between *zakāh* funds and the state budget, the researcher concludes the following:

- Directing *zakāh* funds to recipients other than the eight categories mentioned in the Qur'ān, defined and restricted to prevent any injustice inflicted upon the rightful beneficiaries, is not permissible.
- The government cannot be classified as a debtor incapable of settling its debts because such a category only includes individuals who incurred debts for their own benefit or to settle disputes.
- *Zakāh* is considered one of the state's financial resources, but it has a special budget and specific recipients. The government's role is limited to collecting and distributing *zakāh* to the rightful beneficiaries. The government cannot control these funds and deprive the rightful beneficiaries from receiving the *zakāh* funds to pay off their accumulated debts.

Performing the *zakāh* obligation in the right way can indirectly help reduce the severity of the government's indebtedness by addressing some of the underlying causes that lead to debt accumulation. This will be discussed in the following section.



7. The Role of Zakāh in Indirectly Reducing the State's Debt Burden

After it has been established that the government cannot utilize *zakāh* funds directly to pay off its debts because it is not considered one of the recipients of *zakāh*, nor can it be considered under the category of those who are incapable of settling their debts, the following sub-sections will explain how properly performing the *zakāh* obligation can help reduce the severity of the government's debt burden indirectly.

7.1 *The role of zakāh in reducing the debt burden of the state*

Zakāh is an obligatory charity imposed on the wealthy to provide for the poor, who have a high marginal propensity to consume and a low marginal propensity to save. As previously mentioned, one of the duties of the Islamic state is to collect *zakāh* and distribute it to its eight eligible recipients. Four categories of recipients can be categorized as social in nature: the poor, the needy, those incapable of settling their debt, and the wayfarers.

Suppose the *zakāh* obligation is properly implemented by collecting it from the wealthy and distributing it to the poor. In that case, it will alleviate the burden on the state, which would have been required to spend a lot of financial resources on various social projects. This, in turn, will reduce the pressure on the budget and its deficit and significantly impact the solidarity and compassion among members of society. Consequently, it will lead to an increased desire in the private sector to support the state's budget. (Al-Mumnī, Muḥammed, 2014).

The problem of poverty can be addressed through *zakāh*, depending on the reason behind it. If it is due to unemployment despite having the ability to work, *zakāh* should be given to this poor person to provide him with a tool or teach him a craft that would enable him to work and transform him from a needy person to a productive one. If they cannot earn a living, *zakāh* should be given to them to meet their needs.

Addressing poverty solves many other problems, such as diseases associated with poverty. As the standard of living rises, people have access to good nutrition, healthy housing, and the ability to seek medical treatment when needed. This will limit the spread of diseases and solve the illiteracy problem rooted in poverty. The poor cannot afford to educate themselves or their children.

The problem of homelessness (Qāshī Khalid, 2012) and other related problems can also be solved simply by addressing the problem of poverty. This will, in turn, address the problems that burden the state and increase its debt, which leads the state to resort to borrowing to solve these problems and consequently increase its indebtedness.

7.2 *The role of zakāh in solving the economic problems that lead to state indebtedness and achieving economic development*

After it became clear that one reason for the state's indebtedness is economic problems and misallocation of resources to achieve economic development, the researcher will explain the role of *zakāh* in solving these economic problems and thus reducing the severity of the state's indebtedness.

First: The role of *zakāh* in solving the economic problems that lead to the indebtedness of the state



- The role of *zakāh* in addressing economic recession

Some believe the main cause of economic recession is the lack of effective demand. In contrast, others believe that an increase in the inventory of goods and merchandise and the failure of traders to fulfil their financial obligations are also causing.

Some of the provisions of *zakāh* have an impact on reducing economic recession. As we have mentioned earlier, among the *zakāh* recipients are those incapable of settling their debts, which targets those who borrowed to perform a public service, such as those who act as intermediaries between people and incur some debts due to that. Their debt can be settled in this case, even if they can settle their debt to encourage acts of charity, benevolence, and reconciliation among people. One researcher has shown that this category includes those whose shops burned down, whose goods were lost at sea, whose factory was damaged, and everyone who suffered a loss after wealth and prosperity to compensate for their loss and pay off their debt. Thus, *zakāh* helps alleviate financial distress by enabling financially distressed individuals with a trade or business to continue working. The national economy would benefit from utilising these idle resources, which can be transformed into productive output. Additionally, the income generated by individuals practising their trades and businesses, thanks to *zakāh*, creates additional demand, which results in increased spending, increasing production output. This, in turn, helps to revive the economy and reduce economic recession. (Burdīsh, al-Zahrah, 2012).

- Contributing to the elimination of inflation

Inflation refers to an increase in demand over total supply. One of its main consequences is volatility in the value of currency, which causes prices to rise. This results in hoarding goods and disposing of currency, leading to an increase in aggregate demand over aggregate supply. *Zakāh* is applied to idle means of production, including money, to utilize it in economic activities instead of hindering the use of such resources. Therefore, *zakāh* directs money towards production so that it is a part of the profits, not the capital. Since *zakāh* stimulates the production cycle, this would result in production increases, and as production increases, prices decrease. Therefore, *zakāh* contributes to addressing the problem of inflation.

The authority responsible for collecting *zakāh* can also collect it in cash instead of tangible goods, which would absorb large amounts of cash from circulation. They can then distribute *zakāh* to deserving individuals in kind. This increases demand for these goods, causing an increase in their production. If production increases in the country, prices will decrease, and inflation will be eliminated. (Abū Ṣafīyah, Fakhīr Khalīl, 2020)

- The Impact of *Zakāh* on Employment and Eliminating Unemployment

Zakāh leads to an increase in investments, which opens new investment opportunities that require more labour, thus increasing employment opportunities and reducing unemployment. Additionally, *zakāh* leads to direct consumption, increasing demand and production to meet the demand for consumer goods. This leads to an increase in demand for labour. Moreover, *zakāh* does not contribute to increasing unemployment as some may believe, because every Muslim must seek employment opportunities. (‘Abd Rabah Nashwā Muḥammed, 2003).

- The Impact of *Zakāh* on Reducing Savings

The saving rate in Muslim society tends to be low, and this is achieved when *zakāh* is imposed and collected accurately from all members of the society. We notice that saving decisions in Muslim society are accompanied by investment decisions, and it can be said that saving and investment are interdependent. In other words, the impact on one affects the other. (Razīq Kamāl, 2012).



Second: The Role of Zakāh in Achieving Economic Development by Reducing State Indebtedness

Zakāh can alleviate the burden of the general budget of a country by its effective contribution in financing economic development. *Zakāh* is an effective tool to achieve this by providing a large and renewable financial resource, and its financing role does not stop at its collection limits. Still, it extends to what it can free from frozen and hoarded money, since *zakāh* is imposed on all types of wealth that can grow, whether invested or not. Therefore, the part of the financial resources the state allocates to finance economic development, which *zakāh* funds cover, can then be used in other fields such as investment projects (Bin Şaghīr, ‘Abd al-Mu’min, 2014).

- The Role of *Zakāh* in Financing Economic Development

The financing role of *zakāh* is illustrated through the following two channels:

- The direct role of *zakāh* in financing economic development (Bin Şaghīr, ‘Abd al-Mu’min, 2014).

1. Providing productive tools

Based on some opinions of certain scholars who expanded the scope of the category of (spending in the cause of Allah) to include not only the preparation of armies but also anything that will result in goodness and benefit, it would be possible to rely on this opinion in carrying out infrastructure projects such as construction of roads, canal extension, and the construction of public buildings and bridges. Moreover, Abu Yusuf mentioned that one of the *zakāh* categories is a category dedicated to the repair of roads, which falls under the main category of (wayfarer), which also supports the idea of using *zakāh* funds to provide basic infrastructure through paved roads and transportation networks. Therefore, it can be said that the two categories of *zakāh* recipients, namely (in the cause of Allah) and (the wayfarer) can contribute to economic development through the establishment of vital institutions and facilities that are necessary to encourage the beginning and continuation of development by reducing the expenses of establishing and operating productive projects, which is a phenomenon known as external economies of scale.

2. Financing military and strategic industries

The category of spending in the cause of Allah can be utilized to finance military and strategic industries and invest in the military sector. The military sector is considered one of the main axes that can contribute to driving economic development, especially since this sector has been absorbing an important part of the state's financial resources. Thus, freeing up those financial resources and utilizing them in investment projects would benefit the public.



3. Scientific development of production quantitatively and qualitatively

The category of spending in the cause of Allah refers to all forms of struggle (*jihād*), whether intellectual, social, economic, political, or militaristic. Therefore, one of the aspects of jihad in the cause of Allah is intellectual jihad, without which progress in other types of jihad cannot be achieved. In this context, intellectual jihad means spending on students of knowledge, research centers, training, and funding scientific research that serves society, especially in light of the constantly evolving technology witnessed by the world, which drives Muslim countries to import it at exorbitant prices. (Bin Şaghīr, ‘Abd al-Mu’min, 2014).

4. Creating a suitable climate for economic development

Protect society as a whole by using *zakāh* funds allocated for spending in the cause of Allah, which includes military jihad. Establish confidence in the economy by benefiting from the *zakāh* funds allocated for those who recently reverted to Islam. A contemporary example is the aid provided by rich countries to poor ones. (Bin Şaghīr, ‘Abd al-Mu’min, 2014).

5. Human capital development

Improving the quality of human capital, increasing its productivity, introducing new elements in production, and organizing relationships between them so that all of these elements contribute to increasing the domestic product and distributing it in a way that contributes to economic development. (Bin Şaghīr, ‘Abd al-Mu’min, 2014).

- The indirect role of *zakāh* in financing economic development (Bin Şaghīr, ‘Abd al-Mu’min, 2014).

Zakāh provides the necessary financial resources to achieve economic development by effectively combating hoarding and through the multiplier effect of *zakāh*.

- Combating hoarding:

The annual implementation of *zakāh* on cash at a rate of 2.5% practically leads Muslims to avoid this potential loss of their wealth by investing it in a way that covers at least the *zakāh* rate. Therefore, *zakāh* is considered one of the means of combating hoarding and reducing its risks to economic activity.

- *Zakāh* multiplier effect:

The role of *zakāh* in financing development does not stop at the initial stage, which directly finances all aspects of the developmental process. Still, it leads to multiple increases over the amount spent initially. It can be said that paying *zakāh* leads to annual increases in economic activity levels ranging from 0.25% to 1% of the initial output value, depending on the *zakāh* amounts determined for different types of wealth. Therefore, it becomes clear that *zakāh* plays a significant role in solving many economic problems that lead to the state’s indebtedness if the *zakāh* funds are collected correctly and delivered to its rightful recipients. By solving these problems, this indebtedness indirectly decreases. It is noteworthy to highlight how important and essential *zakāh* is in financing economic development and that utilizing the funds allocated for the two categories of spending in the cause of Allah and on the stranded traveller has a significant role in relieving the burden on the state's budget



and freeing up funds that would have been otherwise spent on equipping military industries, infrastructure, and road repairs. Instead, these extra financial resources can be used to repay the state's debt or establish investment projects that stimulate production activities.

7.3 Investment of *zakāh* funds to reduce state indebtedness

7.3.1 The role of *zakāh* in promoting investment:

Zakāh can be an engine for real development in the state, as it motivates the wealthy to invest their money so that it is not consumed by *zakāh*. Moreover, *zakāh* fights hoarding and drives capital into the field of economic activity. It also encourages investment with high and reasonable profitability. In other words, if someone's profit on their wealth is only 2.5%, then this would be considered a low-profit rate since the person would not gain any increase in his wealth as the *zakāh* will take this amount anyway. Therefore, a person intending to profit from an investment must search for highly profitable projects. As a result, *zakāh* forces individuals not to leave their wealth stored and unused for investment; otherwise, it will continue to decrease (Muḥammed Falāḥ Samā'ī Ṣaliḥah, 2012). Therefore, the impact of *zakāh* on investment stimulates production and, in turn, affects all economic problems that cause the state's indebtedness. Increasing production leads to increased exports, reduced imports, and achieving self-sufficiency for the state. This raises revenues and reduces the debt ratio.

After considering the impact of *zakāh* on investment and how it encourages it, can a portion of *zakāh* funds be directed towards investment? The real reason for the problem of the deficit in *zakāh* revenues is the failure to compel Muslims who are obligated to pay *zakāh* to fulfil this obligation and the lack of regulation concerning its collection and how it is spent. To address this problem, it was necessary to consider investing a portion of *zakāh* funds to provide sufficient liquidity to meet the growing need for *zakāh* funds (Wasīlah Haniyyah & Bu Ḍiyāf Samiyyah Ḥajjāj, 2012). In response to this pressing issue, the Islamic Fiqh Academy allowed investing *zakāh* funds according to specific guidelines.

Based on the above, if a Muslim state has funds exceeding its urgent needs, it can use the collected *zakāh* funds to establish factories, real estate, and commercial enterprises and transfer the ownership of all or some of these properties to the poor to generate sufficient income for them. The Islamic Fiqh Academy of the Organization of Islamic Cooperation approved in its third session held in 1406 A.H., the employment of *zakāh* funds in revenue-generating projects without transferring the ownership of such projects to eligible recipients, or they can be under the supervision of the entity responsible for collecting and distributing *zakāh*, provided that such use of the *zakāh* funds is only done after meeting the urgent and immediate needs of the eligible recipients and providing sufficient guarantees to avoid losses. This decision is crucial and opens up wide horizons for *zakāh* to participate in economic development (Razīq Kamāl & Mu'amar Faṭūm, 2012).

The fatwa of the third conference on contemporary *zakāh* issues addressed this issue by stating that it is permissible to invest *zakāh* funds with certain conditions, which are as follows (Razīq Kamāl & 'Umr Muḥyī al-Dīn, 2012):

1. There should be no urgent expenses requiring immediate distribution of *zakāh* funds.
2. *Zakāh* funds should be invested through legal methods.
3. Measures should be taken to ensure that the invested assets and profits remain subject to *zakāh* rulings.
4. The initiative should be taken to liquidate the invested assets if the *zakāh* beneficiaries need them.



5. Efforts should be made to ensure that the investments in which *zakāh* funds are placed are viable, secure, and liquidable if needed.

6. The decision to invest *zakāh* funds should be made by those entrusted with the collection and distribution of *zakāh*, in line with the principle of legal representation. The supervision of the investment should be entrusted to those with sufficient competence, experience, and honesty.

7.3.2 Zakāh Investment Strategy:

The process of investing *zakāh* funds can either be carried out directly by the beneficiaries or by *zakāh* institutions, as follows (Razīq Kamāl & Mu‘mar Faṭūm, 2012):

1. Investing *zakāh* funds by the beneficiaries:

The poor and needy may invest the *zakāh* funds given to them since it became under their full ownership, and they have the right to dispose of them as they wish, like any other property. They have the right to establish investment projects, purchase crafts, and so on without interference from the state. This method will allow these groups to become *zakāh* payers in the future as they engage in profitable investments, making them part of the contributing class rather than the receiving class.

2. Investing *zakāh* funds by the *zakāh* institution:

- First method: The *zakāh* institution invests the *zakāh* it provides to the eligible recipients on their behalf and transfers the outcome of the investment to them in the form of institutions and productive units. Regardless of whether the purpose of the investment is individual or collective ownership, it leads to achieving the goal of *zakāh*, which is to alleviate the recipients' poverty and increase investments that will exist in society, resulting in increased employment and production.

- Second method: The *zakāh* institution invests the surplus funds only and distributes the profits later to the eligible recipients if any. As we know, the *zakāh* institution is responsible for speeding up the distribution of *zakāh* funds to the eligible recipients, whether through aid or investment leading to individual or collective ownership. However, *zakāh* funds may also not be divided but invested if such an approach is considered necessary to secure fixed financial resources for the eligible recipients and provide job opportunities for the unemployed among them by establishing productive and service projects that generate profits to the *zakāh* institution, which will later be disbursed to other eligible recipients.

After clarifying the possibility of investing a portion of *zakāh* funds subject to the fulfilment of the urgent needs of its recipients, it becomes apparent how important its investment is in stimulating productive activity and establishing investment projects that solve a significant amount of economic problems such as unemployment by employing *zakāh* recipients in these projects, thereby turning them from *zakāh* recipients into *zakāh* providers. This, in turn, will increase production, thereby reducing inflation so that supply becomes balanced with demand and easing economic recession and other economic problems that lead to an increase in debt. By solving these economic problems and achieving economic recovery, the country can rid itself of debt and its consequences.



8. Conclusion

The study has shown that the state's financial resources and budget are entirely separate from *zakāh* funds, which are earmarked for specific beneficiaries as dictated by Sharī'ah principles. Therefore, *zakāh* funds cannot be diverted to recipients other than those outlined in Sharī'ah. This reinforces the importance of adhering to the prescribed guidelines in *zakāh* distribution. Moreover, it is worth noting that the state, as an entity, does not fall within the category of individuals struggling to settle their debts, given that the eligible recipients of *zakāh* are individuals and not entities. Consequently, the study highlights the importance of redirecting *zakāh* towards its rightful beneficiaries, such as the impoverished and the needy. Additionally, *zakāh* can be used to finance infrastructure and military expenditure, alleviating the state's financial obligations in these critical areas. Redirecting the *zakāh* funds towards these areas allows the state to free up financial resources. These resources can then be allocated towards reducing the state's indebtedness or financing vital investment projects, thus promoting financial stability. The study emphasizes *zakāh's* potential to address economic challenges that lead to indebtedness, promote economic development, and encourage investment. By facilitating economic recovery, *zakāh* contributes to increased state revenues and gradual debt reduction.

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Quantifying the Effect of Interest Rate on Islamic Banks Financing in the United Kingdom

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Abstract

The conceptual framework of Islamic banking and finance is predicated on prohibiting riba (interest) and avoiding business practices that contravene ethical norms, potentially leading to injustice. Notwithstanding its professed commitment to eschew interest-based transactions, there is a prevalent concern among scholars and researchers that Islamic banking remains susceptible to the vicissitudes of interest rate fluctuations. This research examines the nexus between interest rates and Islamic bank financing within the United Kingdom, which is recognised as a pivotal centre for Islamic Finance in Europe. Employing a panel dataset that includes 60 observations spanning from 2008 to 2021, derived from the annual reports of the four full-fledged Islamic banks in the UK, and utilising the Random Effect model, our analysis discloses a negative, albeit statistically insignificant, correlation between the financing activities of Islamic banks and interest rates in the UK. Furthermore, the study elucidates that interest rates adversely impact deposit accumulation in Islamic banks, consequently hindering their capacity to extend credit to their clientele. As a result, it becomes imperative for Islamic banks to diminish their dependency on conventional interest rates to maintain the trust of stakeholders, who are motivated by the intention to avoid interest-based transactions in all their manifestations. This study contributes to the enrichment of the extant literature by convincingly demonstrating that the influence of interest rates on Islamic banking financing in the UK aligns with the findings from other jurisdictions reported in similar research endeavours.

Keywords: Islamic banks, Conventional banks, Interest Rate, Islamic Finance, United Kingdom



1. Introduction

The emergence of Islamic banking is arguably one of the most significant events of the 21st century in the global financial industry, growing phenomenally across various jurisdictions. Particularly of interest is the fact that the sphere of influence of Islamic banking has gone beyond the traditional Islamic countries, extending to Asia and Europe. Presently, a little above 500 Islamic Banks are operating in about 90 countries across the globe, 15 of which have attained the status of systemic significance (IFDI, 2022). With a total asset jumping from \$1.6 trillion in 2015 to \$2.8 trillion in 2021 and a projection of \$4.0 trillion by 2026 (IFDI, 2022), Islamic banking is poised to sustain its growth trajectory beyond the immediate era.

A well-known distinguishing feature of Islamic banking is the avoidance of interest. This is so because Islam abhors and prohibits *riba* (loosely interpreted as interest), a form of excess repayable by a debtor over the original amount borrowed. Hence, all transactions of an Islamic bank are expected to be devoid of paying or receiving interest. Instead, the principle of profit and loss sharing (PLS) is adopted as the basis of financing in Islamic banking. This ensures that stakeholders in any financial dealing share both risks and benefits from the transaction. Islamic banking is also asset-based as against conventional banking, is interest-based; this makes it more resilient during the crisis (M. H. Ali et al., 2020) just as it is less prone to interest rate risk (Kia & Darrat, 2007). Additionally, Islamic banks operate based on another set of Shari'ah rules, which prohibit gambling, excessive uncertainties and dealing in immoral, unethical 'goods' such as pornography. However, the major signpost of Islamic banking remains its non-interest disposition.

In most jurisdictions, Islamic banks operate alongside conventional banks in a dual banking system, in the same market, and under the same regulatory environments. This poses a significant challenge to the ability of Islamic banks to maintain their distinct identity (Nouman et al., 2022). While Islamic banks do not charge or pay interest, the quest to compete effectively with conventional banks has seen them benchmarking their products against conventional interest rates such as the London Interbank Offer Rate (LIBOR), Karachi Interbank Offer Rate (KIBOR), Kuala-Lumpur Interbank Offer Rate (KLIBOR) etc. (Ahmed et al., 2018; Nouman et al., 2022). The implication is that Islamic banks become exposed to interest rate volatility (Archer & Karim, 2019).

Consequently, it would appear that Islamic banks may have drifted and deviated from the lofty ideal model (Šeho et al., 2020a). It is, therefore, not surprising that concerns are being raised that the activities of Islamic banks have continued to mirror those of conventional banks not only in terms of product offerings and benchmarking of their profit rates against traditional interest rates but also in terms of how financing activities of Islamic banks appear to be driven by gyrations in interest rate.

Several studies have investigated the link between Islamic banking financing and interest rates and have found results that largely corroborate the insinuation that interest rates somewhat drive Islamic banking financing. These studies include Aysan, Disli, & Ozturk (2018); Ergeç & Arslan (2013); Saeed et al. (2023); Šeho et al. (2020a) and Zulkhibri (2018).

However, all the studies cited above have focused on Islamic banks in the GCC countries or South-Asian countries. To my knowledge, no study has investigated the effect of Interest rates on Islamic bank financing in Europe or elsewhere. Therefore, this study seeks to fill the gap and expand the frontier of knowledge by investigating the effect of interest rates on Islamic bank financing in the United Kingdom. In achieving the set objective, the study specifically aims to answer the following questions:



RQ1: Is Islamic bank financing in the UK influenced by changes in the interest rate?

RQ2: How does an Islamic bank deposit respond to changes in interest rate?

The choice of the UK is based on the country's position as the hub of Islamic finance in Europe. Outside of the Muslim-dominated countries of Southeast Asia and the Middle East, the United Kingdom is one country where Islamic finance has shown strong signs of a promising future. According to the Islamic Finance Development Indicators, IFDI (2022) report, the UK's total Islamic banking assets, worth \$7.5 billion as of 2021, accounted for 85% of total Islamic banking assets in Europe. The UK also ranked 27th out of 136 countries in terms of growth of Islamic finance. Despite controlling only 0.3% of global Islamic banking assets, the UK occupies an enviable 2nd position regarding the number of companies offering Islamic finance-related professional services. After Indonesia, the UK also comes second in the number of Islamic Fintech companies. It is also remarkable to note that the London Stock Exchange has become a preferred exchange for listing Sukuk. Interestingly, the UK authorities have reacted to the growth of this industry by ensuring that regulations governing financial services in the UK give adequate recognition to this segment of the industry. Tax laws on financial products and services have also been amended to apply to Islamic bank's products appropriately. Perhaps most significant is the issuance of the UK government's first-ever sovereign sukuk in the West in 2014 (British Embassy, Bishkek, 2023).

The remainder of the study is structured as follows: Section two discusses the theoretical and empirical literature on the topic, while section three sets out the data specification and methodology. Section four is dedicated to the presentation of the results and a discussion of key findings. Section five concludes the essay.

2. Literature review

One of the earliest works on this subject matter is that of Rosly (1999), who explained the relationship between Interest rates and Islamic bank financing. His postulations are hinged on the assumption that Islamic bank financing is dominated by Ba'i Bithamana Ajal (BBA), also known as Differed Payment Sales and that Islamic banks operate in a dual banking system.

According to Rosly, when the market interest rate rises, conventional banks increase the interest on deposits and raise interest charges on loans to maintain a stable profit margin. On the other hand, Islamic banks cannot adjust the fixed rate on their existing BBA contracts, nor can they increase the return payable on Wadiah deposits or dividends payable to Murabaha account holders. This effectively makes Islamic bank deposits decline as non-Muslim customers, who are only driven by pecuniary considerations, move their deposits to conventional banks to benefit from higher interest rates. In the same breath, the fixed rate BBA financing provided by Islamic banks becomes cheaper than traditional loans. This leads to a surge in demand for Islamic bank financing, which the banks cannot meet given declining deposits.

However, during periods of economic slowdown when interest rates are falling, the conventional deposit rate falls while the loan interest rate follows suit. Again, Islamic banks are not allowed to reduce the rate on BBA since it is a fixed-price contract, even though they can reduce the rate they pay on Wadiah's deposit. But they are not likely to do so. This situation incentivises "rational", mainly non-Muslim customers, to move their deposits from conventional banks to Islamic banks where deposit rates (returns on investment account) now appear higher. However, demand for Islamic financing will decline as conventional loans become cheaper. The increased deposit recorded by Islamic banks leads to excess but idle liquidity.



Therefore, Islamic banks tend to benefit more when interest rates fall. They maintain the fixed rate on the existing BBA while being able to reduce the Hibah they pay on Wadiah's deposit. But they are also trapped in the web of excess liquidity without additional earnings. Thus, it would appear that non-Muslim customers, as well as less-devout Muslim customers, are the greatest beneficiaries of the dual banking system and are the destabilising agents through whom interest rate influences the activities and operations of Islamic banks.

The issue of how Islamic Banking activities are intertwined with conventional banking activities has long become a subject of interest not only to promoters of Islamic Banking and Finance (IBF) but it has also become a potent weapon in the hands of critics of the new paradigm, who see Islamic finance as nothing but a smokescreen to charge interest. Few have argued that Islamic banks have deviated from their original ideals through their emulation and replication of Conventional banking practices and techniques (Iqbal et al., 2015). This explains why even Islamic banks have become as vulnerable as their conventional counterparts (Seho et al., 2020a).

The ideal Islamic banking model envisioned by its proponents is based on risk-sharing that enables both the bank and entrepreneur to jointly partake in a business venture's management, profit, and loss. This implies that Islamic banks are expected to act as venture capital providers, promoting entrepreneurship. The centrality of risk-sharing in Islamic finance has been emphasised by many Shari'ah scholars (Alaabed & Masih, 2016), who have also warned against debt-based financing, which is interest-based (Iqbal & Mirakhor, 2013). Nonetheless, many studies have shown that Islamic banks have concentrated more on debt-based rather than risk-sharing financing. For example, Khan (2010) showed evidence that non-PLS type constituted more than 90% of funding provided by the most prominent Islamic banks in the MENA region. Rosly (1999) It also found that at some point, sales-based financing accounted for over 94% of funding provided by Bank Islam Malaysia Berhad, the most prominent Islamic Bank in Malaysia.

In explaining the dominance of debt-based financing in the portfolio of Islamic banks, Azmat et al. (2015) argued that the fact that depositors of Islamic banks are mainly risk-averse is why the banks prefer short-term debt-like financing, which is less risky than joint venture partnerships. Furthermore, they noted that PLS financing is more prone to the twin evil of moral hazard and adverse selection. Unfortunately, this preference for debt-based funding exposes Islamic banks to interest rate shocks.

It is a fact that interest rates are at the heart of modern conventional banking. However, Samuelson (1958) opined that a nominal interest rate of zero percent would better ensure optimal resource allocation in an economy. In the view of Al-Jarhi (2017), this confers a distinct advantage on Islamic finance as a vehicle for economic justice and fairness and as an agent for reforming the current market economy. An essential distinction between Islamic and conventional banking models is that whereas the latter thrives on interest, the former is devoid of interest, at least in theory. It may then appear as a paradox, seeking to investigate the effect of interest rates on Islamic bank financing.

Various studies have investigated the connection between interest rates and Islamic banking operations, especially concerning the provision of finance and deposits. These studies have attempted to dissect the issues from different perspectives, focusing primarily on countries operating dual banking systems. The results have, however, been quite contradictory, suggesting the need for further empirical evidence. The issues analysed in the literature have ranged from how interest rates influence Islamic banks' financing and deposits as compared to conventional banks' funding and deposit, the relationship between traditional deposit rates and the rate of return on Islamic banks' deposits, similarities or differences in the monetary



transmission mechanisms between Islamic and conventional banks; the response of Islamic banks depositors to changes in interest rate; among others.

Hakan & Gülümser (2011) examined how interest rate affects deposits and loan advances (financing) in both conventional and Islamic banks in Turkey using the Vector Error Correction (VEC) methodology on monthly data covering December 2005 to April 2009. They found that a rise in interest rates results in an increase in conventional deposits and a drop in Islamic bank deposits. This happens perhaps because Islamic banks cannot adjust their rate as quickly as traditional banks would do in the circumstance, forcing some customers to move their deposits to conventional banks to take advantage of the arbitrage opportunity that a rise in deposit rates in conventional banks presents. But contrary to this line of thought, Saeed et al. (2023) found evidence that Islamic bank rates in Malaysia positively adjust to changes in conventional bank rates to avoid withdrawal risk of investment deposits by profit-driven depositors who find Islamic investment deposits and conventional fixed deposits as substitutes. This empirical evidence also challenges the theoretical postulation of Usmani & 'Uṣmānī (2002), who had argued that investment account deposits are insulated from withdrawal risk since, by conceptualisation, the Islamic bank is under no obligation to refund the deposit of this category of customers. According to him, the bank can refuse withdrawal requests by investment account holders.

Perhaps one study that buttresses the fact that Islamic banks in Malaysia can forestall the withdrawal of investment deposits in response to an increase in interest rate is Ali et al. (2020), who examines how changes in interbank interest rates in Malaysia affect Islamic banks' deposit and financing, using Auto Regressive Distributed Lag (ARDL) and data covering 2007 to 2018. Their findings reveal that the Interbank interest rate positively correlates with Islamic Banks' deposits and total financing. The observed increase in Islamic banks' deposits may be due to the adjustments they can make in response to conventional bank rate changes. This outcome contradicts the findings of Hakan & Gülümser (2011), who found that Islamic banks' deposits drop with rising interest rates. Both studies, however, agree on the point that a rise in interest causes Islamic loans (financing) to increase. Other studies that have found evidence that Islamic bank financing responds positively to the increase in interest rate include Ergeç & Arslan (2013), Sukmana & Kassim (2010) and Rosly (1999).

The causal effect of conventional banks' deposit rate on Islamic bank investment deposit rate (return rate) was also established by Chong & Liu (2009), who investigated the relationship between the two rates in Malaysia. The study used the Bivariate Granger causality test for long-term relationships and the error correction representation method to determine the short-term relationship. An analysis of Monthly data from 1995 to 2004 and 109 sample size for each time series revealed changes in conventional deposit rate granger-cause changes in Islamic investment rate but not vice versa. The study further confirms a long-term cointegration between the Islamic investment rate and the traditional deposit rate of both bank and non-bank financial institutions in Malaysia. Islamic deposit rates are found to be pegged to conventional rates. The reason for this relationship, the study notes, is the environment in which Islamic banks operate, which requires them to compete with their traditional counterparts. Other studies such as Cevik & Charap (2015), Abdurraheem & Mohamed Naim (2016), Anuar et al. (2014) and Yüksel et al. (2017) have all found corroborating evidence for the nexus between conventional banks deposit rates and Islamic banks return rate on investment account deposits.

In justifying the above findings, Saeed et al. (2023) explained that when deposit rates go up in conventional banks, Islamic banks try to forestall withdrawals of deposits by profit-driven customers by using some of their earnings to argue the



returns payable to Investment Account Holders. Where the earnings are inadequate to cater to this need, part of the banks' capital is deployed to the rescue, leading to displaced commercial risk.

On his part, Khalidin (2017) examined how conventional banks' interest rate on consumption, the interest rate on working capital and interbank money market rates affects Islamic bank's total financing and Murabaha financing in Indonesia through the instrumentality of a Vector Auto Regression model covering the period between 2009 and 2015. The study finds that while commercial banks' rate on working capital and Inter-bank money market rates influence Islamic banks' total financing, Commercial banks' rate on consumption influences Murabaha financing. Curiously, the study is silent on the nature of the effect, whether it is positive or negative. However, looking at the result, one can deduce that the relationship is negative.

Nouman et al.'s (2022) study on interest rate volatility and Islamic bank financing in Pakistan also reveals both short- and long-term relationships between interest rate volatility and Islamic banks' financing, which the authors attribute to the prevalence of the use of conventional interest rate as a benchmark for pricing Islamic banks products in the country. They employed data on Islamic banks' financing to various sectors and the Karachi Inter-Bank Offer Rate (KIBOR) from 2006 to 2020 comprising 734 observations while carrying out unit root test, Cointegration test, and test for Error correction. The study further finds a linkage between interest rate volatility and volatility of financing portfolios of Islamic banks.

A similar study in Malaysia investigated whether there is any difference in the responses of Islamic financing and conventional credit to shocks in monetary policy using the Structural Vector Auto Regression and quarterly data spanning 2000 to 2013 (Akhatova et al., 2016). Their results reveal that while Islamic financing responds instantaneously to monetary policy shocks, conventional credits exhibit delayed response. Reasons advanced include the fact that Islamic banks are mainly limited to customer deposits as a source of funds, hence a contraction in deposits due to increased interest rates, which may motivate less-religious customers to move their funds to conventional banks, seriously impacting their financing.

Ali, A. O. (2021), on his part, evaluated how monetary policy, as represented by overnight policy rate, affects Islamic banks' "loans" and conventional banks' loan advances using Auto Regressive Distributed Lag (ARDL) and monthly data from 2015 to 2018. The study finds that interest rate has a statistically negative impact on Islamic banks' loans in the short run but not in the long run. For conventional banks, the effect of interest rates is negative in the short run and positive in the long run. A similar study in Malaysia reported that the response of Islamic bank financing to changes in monetary policy is no different from that of conventional banks, with no distinction between the short and long run.

Finally, Šeho et al. (2020) took an innovative approach to the issue by disaggregating Islamic bank financing into three categories comprising Sales-Based, Lease-based and Risk-Sharing financing types while seeking to investigate the impact of interest rates on each type. They also used cross-country panel data containing 77 Islamic banks from 13 countries, including Southeast Asia and GCC countries, covering 2003-2017. This is unlike most other studies which focus on individual countries. Their analysis of data obtained using the GMM estimator is, perhaps, the most comprehensive and most robust on this subject in the literature, creating deeper insight into how interest rate affects different components of Islamic banks' financing. The results show that while interest rate has a negative effect on sales-based and lease-based financing types, the effect is neutral on risk-sharing financing. This underscores the importance of the risk-based financing type as the most ideal Islamic financing model. The study finds that even in jurisdictions where Islamic banks have attained systemic significance, interest rate continues to have a statistically significant negative influence on Sales-based financing but not on lease-based and risk-sharing financing.



3. Methodology

This study aims to evaluate the effect of Interest rates on Islamic bank financing in the United Kingdom. We use annual data for total funding, assets, and deposits of all four full-fledged Islamic banks in the UK. Our sample consists of the following banks: Al-Rayan Bank, Bank of London and Middle East, Qatar Islamic Bank, and Gatehouse Bank. Data covering 2008 to 2021 was obtained from the bank's annual financial statements to form panel data comprising 60 observations. Similarly, data on the United Kingdom's macroeconomic variables, such as inflation rate, interest rate (proxied by Bank Rate) and GDP growth rate, were obtained from www.macrotrends.net. The natural log of Total Financing, Total Assets and Total Deposits addresses the trend problem in the data. Panel data has been adopted because it is more informative and reduces the incidence of collinearity among variables of interest. Furthermore, it enables the relaxation of the zero conditional mean assumption to derive consistent and unbiased estimates for our regression coefficients. The Random Effect Estimation technique is adopted to analyse the data. This technique is chosen after carrying out the Hausman Test for each version of the regression models specified in the study. The method provides for time-invariant unobserved variables, which are assumed to be uncorrelated with the explanatory variables. The choice of variables follows what is found in various literature, such as Zulkhibri (2018) and Ergeç & Arslan(2013).

The following hypotheses have been defined:

Ho: Interest rate does not have any effect on Islamic Banks' Financing

H1: Interest rate has a significant effect on Islamic Banks' Financing.

Accordingly, the following random effect baseline model is specified to quantify the relationship between Islamic bank financing and interest rate as represented by the Bank of England Rate or Bank Rate for short, while controlling for Total Deposit, Total Assets, and other microeconomic variables including Inflation and GDP growth rate.

$$\text{LNTFIN}_{it} = \alpha_i + \beta_1 \text{INTR}_{it} + \beta_2 \text{INFL}_{it} + \beta_3 \text{LNTDPI}_{it} + \text{LNASSET}_{it} + \text{GDPGRT}_{it} + \gamma Z_i + \text{eit} \dots \dots (1)$$

$$\text{LNTFIN}_{it} = \alpha_i + \beta_1 \text{INTR}_{it} + \beta_2 \text{LNTDPI}_{it} + \beta_3 \text{LNASSET}_{it} + \gamma Z_i + \text{eit} \dots \dots \dots (2)$$

$$\text{LNTFIN}_{it} = \alpha_i + \beta_1 \text{INTR}_{it} + \beta_2 \text{LNTDPI}_{it} + \gamma Z_i + \text{eit} \dots \dots \dots (3)$$

$$\text{LNTFIN}_{it} = \alpha_i + \beta_1 \text{INTR}_{it} + \gamma Z_i + \text{eit} \dots \dots \dots (4)$$

$$\text{LNTFIN}_{it} = \alpha_i + \beta_1 \text{LNTDPI}_{it} + \gamma Z_i + \text{eit} \dots \dots \dots (5)$$

Where:

LNTFIN= Log of Total Financing of Islamic Banks

INTR = Interest Rate (as proxied by Policy Rate)

INFL= Inflation Rate

LNTDPI= Log of Total Deposit of Islamic Banks

LNASSET= Log of Total Assets of Islamic Banks

GDPGRT= GDP Growth Rate



Z_i = Time invariant unobserved variables

e = Idiosyncratic error term

Interest rate is included in the model as the main explanatory variable, given that our primary focus is to establish whether or not conventional interest rates influence Islamic Banks' financing. The inclusion of inflation as a control variable is based on the fact that inflation affects Islamic bank financing as borrowers slow down on borrowing during periods of high inflation (M. H. Ali et al., 2020). It also follows what is found in previous works such as (Zulkhibri, 2018) and (Ergeç & Arslan, 2013). The total deposit of Islamic banks is undoubtedly a determinant of the capacity of the banks to extend financing to their customers. Its inclusion in our model follows the example of Ergeç & Arslan (2013) and (M. H. Ali et al., 2020). Another bank-specific variable introduced is total assets in line with existing literature (Šeho et al., 2020b). Finally, including the GDP growth rate also follows the example (Zulkhibri, 2018).

In line with the findings of some previous studies, such as Šeho et al. (2020a), we assume a negative relationship to exist between interest rates and Islamic banks' financing, a positive relationship between deposit and funding, a positive relationship between banks' total asset and financing; a negative relationship between inflation and Islamic banks' financing and; a positive relationship between GDP growth rate and Islamic banks' financing.

We also seek to test whether changes in interest rates have any effect on Islamic banks' deposits, as postulated by Rosly (1999), by specifying the following hypothesis and model:

H0: Interest Rate does not have a significant impact on Islamic banks' deposits

H1: Interest Rate has a substantial impact on Islamic banks' deposits

To test this hypothesis, we specify the model below:

$$\text{LNTDPit} = \alpha_i + \beta_1 \text{INTRit} + \gamma Z_i + e_{it} \dots\dots\dots (6)$$

Where all variables remain as specified above.

The expectation is a negative relationship between interest rates and Islamic banks' deposits.

4. Results

Table 1 presents all our variables' mean, standard deviation, minimum and maximum values. The average amount of funding provided by all four Islamic banks in the UK over the period is £532,025 with a standard deviation of £551,414, while the average total deposit is £492,698 with a standard deviation of £574,558. The average total asset is £792,348. The average interest rate over the same period is 0.9, hovering only between 0.16% and 2.57%. The average growth rate is 1.08%, with a standard deviation of 4.06%. The high standard deviations recorded suggest some abnormality in the data distribution.



Table 1. Summary Statistics

Variables	Obs.	Mean	Std.Dev.	Min	Max
Finance	60	532025	551414.8	0	1997919
Deposit	60	492696.8	574558.4	0	2044149
Asset	60	792348.5	662324	31453	2400294
Interest rate	60	0.90200	0.914146	0.16	2.57
Inflation	60	2.579393	1.967023	0.368	9.07
GDP Growth Rate	60	1.080413	4.054998	-11.0309	7.5249

Source: Authors' elaboration

The results presented in Table 2 show that for model 1, a negative but statistically insignificant relationship exists between interest rate and financing. A 1% increase in the interest rate causes a 0.07% decrease in funding. As expected, a positive relationship is observed between Islamic banks' deposits and financing with a coefficient of 0.1138. A 1% increase in deposits leads to a 0.11% increase in financing. The coefficient is statistically significant. Total assets similarly exhibit a statistically significant positive relationship with financing. The inflation coefficient is negatively signed, implying a negative relationship between price levels and Islamic bank financing. Although unexpected, the coefficient of growth rate also turns up with a negative sign but not statistically significant. The pattern is the same for all the variables in all other models (2-5) in terms of the signs and significance of the coefficients of the variables.

Table 2. Empirical Result of Regression of Islamic Banks Financing on Interest Rate and other Explanatory variables (Using Policy Rate as Proxy for Interest Rate)

Explanatory Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Interest Rate (Policy Rate)	-0.0735151 (0.346)	-0.0702932 (0.292)	-0.1218636 (0.387)	-0.6568117 (0.002)	
Deposit	0.1137954 (0.008)	0.1139481 (0.006)	0.6199302 (0.000)		0.6415234 (0.000)
Total Assets	1.176687 (0.000)	1.176766 (0.000)			
Inflation	-0.0031052 (0.920)				
GDP Growth Rate	-0.0022587 (0.863)				
Constant	-4.3545 (0.000)	-4.355034 (0.000)	5.092334 (0.000)	13.04434 (0.000)	4.712806 (0.000)
R-squared	0.9397	0.9397	0.6499	0.0925	0.6459
Hausman Test					
Chi2(5)	10.71	11.25	10.71	10.71	10.71
Chi2	0.0575	0.0105	0.0575	0.0575	0.0575

Source: Authors' elaboration



Finally, Table 3 presents the results of the estimation of model 6. We find a negative and statistically significant relationship between conventional interest rates and Islamic bank deposits. This conforms with expectations.

Table 3. Empirical Result of Regression of Islamic Banks Deposit on Interest Rate

Interest	-0.930674 (0.000)
Constant	12.9387
R-Squared	0.1656
Hausman Test	
Chi2(5)	10.71
Chi2	0.0575

Source: Authors' elaboration

5. Discussion

From the result of our analysis presented in Table 2 above, model 1, which is our baseline model, reveals a negative but statistically insignificant relationship between the bank rate and Islamic bank financing. It means that a 1% increase in interest rate causes Islamic banks' financing to decline by 0.07%. This result aligns with the findings of Ali, A. O. (2021), Zulkhibri (2018), Khalidin (2017) and Šeho et al. (2020), all of those who found evidence of a statistically significant negative relationship between Interest rates and Islamic banks' financing. This is perhaps because rising interest rates have been found to cause Islamic banks to lose deposits (Rosly, 1999; Hakan & Gülümser, 2011), which constitute the primary source of "loanable" funds for them (Sukmana & Ibrahim, 2017). The decline in Islamic banks' financing may also indicate an increase in the rate of return they demand from customers, leading customers to shun requests for financing. Thus, contrary to the impression that Islamic Banks are insulated from interest rate shocks just because they operate non-interest banking, our findings, corroborated by similar studies, have proved otherwise. Our result, however, contradicts what was theorised by Rosly (1999) and corroborated by the empirical studies of Hakan & Gülümser (2011) and Ergeç & Arslan (2013).

Furthermore, we found evidence of a statistically significant positive relationship between Islamic banks' financing and deposits. This result is expected as the bulk of funds for financing in an Islamic bank comes from customers' deposits, as noted earlier. A 1% increase in deposits is associated with about a 0.11% increase in financing. Šeho et al. (2020b) found a similar relationship between deposit and risk-based financing in cross-country panel data. The total assets of Islamic banks also exhibit a statistically significant positive relationship with their funding, which confirms Zulkhibri's finding of Zulkhibri (2018) in his study on Malaysia. A coefficient of 1.177 means that a 1% increase in total assets causes a 1.17% increase in Islamic banks' financing in the UK. This result underscores the importance of an Islamic bank's size in determining its funding.

Regarding the macroeconomic variables used in the model, the result shows that Islamic banks financing declines as the inflation rate rises. This is consistent with the findings of other studies, including (M. H. Ali et al., 2020) and (Zulkhibri, 2018). This outcome is not unexpected, considering that when inflation rises, monetary authorities usually respond by raising interest rates. The rise in interest rate, in turn, causes Islamic banks' financing to decline, as we have seen from the estimation of model 1. Surprisingly, financing also drops as the GDP growth rate increases. This finding diverges from that of (Zulkhibri, 2018), who showed evidence of a positive relationship between Islamic banks' financing and real GDP growth rate. Both



coefficients of inflation and GDP growth rates are, however, statistically insignificant. The R-square value shows that this model explains 93.97% of variations in Islamic bank financing. It is also instructive to note that the result of the Hausman test confirms the validity of using the random effect technique.

The estimation of model 6, which regresses Islamic Banks' Deposits on interest rates, reveals a statistically significant negative relationship between Islamic banks' deposits and interest rates. An increase of 1% in interest rate is associated with a 0.93% decrease in Islamic bank deposits. This aligns with expectations and consonance with the findings of (Ergeç & Arslan, 2013) and (Aysan et al., 2018). The result, however, contradicts what was found by M. H. Ali et al. (2020). An increase of 1% in interest rate is associated with a 0.93% decrease in Islamic bank deposits. This means that some depositors of Islamic banks in the UK are profit-driven. The patronage of Islamic banking services by these customers is highly elastic (Saeed et al., 2023); they easily switch between Islamic banks and conventional banks as interest rates gyrate (Aysan et al., 2018).

Hence, when the interest rate goes up, they move their deposits to conventional banks to take advantage of the higher interest rate on deposits. This is unlike religiously inclined customers whose demand for Islamic banking services is inelastic (Saeed et al., 2023), regardless of movements in conventional interest rates. For them, it is about adhering strictly to the dictates of their religion. This finding supports the proposition of Rosly (1999) and the empirical findings of Hakan & Gülümser (2011) and (Ergeç & Arslan, 2013). Furthermore, it corroborates IFSB's (2017) report, which finds that Islamic bank deposits in Malaysia declined by 10.28% in response to a 2% rise in interest rate. It also explains why Islamic banks' financing drops as their primary source of loanable funds experience contraction. The decline in financing is inevitable, given that this reduction in deposits cannot be compensated for through any other means (Zulkhibri, 2018), as their access to alternative funding sources is greatly limited (Farooq & Zaheer, 2015). Overall, we argue that Islamic banks' deposits drop in response to an increase in interest rate because a sizable number of depositors with these banks are "rational" investors who are only seeking returns maximisation. They move their funds between conventional and Islamic banks at every opportunity, depending on when their motive is best served.

6. Conclusion

The co-existence of Islamic Banks side-by-side with conventional banks in a dual banking system is the reality in most countries where Islamic banking is practised. This has resulted in fierce competition among these two types of banking systems seeking to attract customers. As a necessary consequence, the line of distinction between the duo has continued to fade out as Islamic banks compete for space with their conventional counterparts. Rather than maintain their distinct Identity, Islamic banks have been found to emulate traditional banks in their product offerings, which seems to jeopardise the whole essence of Islamic banking: to eliminate interest-based transactions and replace them with a shari'ah-compliant PLS model.

The influence of interest rates on Islamic bank financing is becoming more glaring with each passing day. This has necessitated various studies seeking to quantify the impact of interest rates on Islamic bank financing and deposits.

Accordingly, this study also examines the impact of interest rates on Islamic banks' financing in the UK, the hub of Islamic Finance in Europe in the West. We modelled Islamic Financing against interest rate, proxied by the Bank of England Rate, the UK's policy rate. The influence of Islamic banking in the United Kingdom has experienced an upward swing in the last decade, mainly due to the increasing population of migrants from Muslim countries and the growing number of students



coming to the government to pursue higher education. This has meant an increase in demand for Shari'ah-compliant banking services.

Our finding confirmed the existence of a negative, though statistically insignificant, relationship between Islamic Banks' financing and interest rates in the UK. This is because as the interest rate goes up, conventional banks' lending rate also goes up, and so does the deposit rate. Considering that the return rate on Islamic Bank Investment Accounts is fixed rather than variable, non-religiously inclined depositors, acting in consonance with the Rational Choice Theory, move their funds to conventional banks to maximise their returns. This action effectively causes Islamic bank deposits to nosedive. With declining deposits, Islamic banks' financing also takes a downward turn due to a shortage of loanable funds. This finding supports the theoretical postulation of Rosly (1999), the empirical findings of Ergeç & Arslan (2013), and that of Hakan & Gülümser (2011). It is also consistent with the findings of A. O. Ali (2021) and Šeho et al. (2020b).

We also modelled Islamic banks' deposits against interest rates separately, and the result confirms a statistically significant negative relationship between the two. This suggests that the channel through which changes in interest rates affect Islamic banks' financing is the deposit. Further analysis shows that the size of an Islamic bank, as proxied by total assets, is an essential determinant of total funding, considering our result's positive and statistically significant relationship. Inflation and GDP growth rate are both found to harm financing.

An important implication of our finding is that as long as Islamic banks operate in a dual banking system and are patronised by customers whose patronage is driven strictly by profit considerations, it will be difficult, if not outrightly impossible, to disentangle them from the influence of conventional interest rate. In our opinion, not even enforcing regulations seeking to dissuade Islamic banks from acting in tandem with traditional banks, as suggested by Al-Jarhi (2017), can reverse the trend. This situation, however, has implications for customer perception and trust. Many customers may soon become disinterested in Islamic banks if they perceive that their operations are not insulated from interest rates. They may feel let down and betrayed, resulting in their deposits being withdrawn and refusing to transact business with the banks.

To address this problem, the banks should promote increased awareness through campaigns to strengthen the value proposition of Islamic banking, emphasising not just profitability but also ethical and religious values that appeal to the inelastic, religiously inclined customer base. Scaling-up efforts to expand their customer base among religiously conscious adherents of the Islamic faith may help neutralise the influence of profit-driven customers, whose activities tend to put the Islamic banks' operations under intense pressure.

It may also be helpful for Islamic banks in the UK to develop strategic customer segmentation approaches, making it possible for them to, for instance, offer competitive Islamic investment products with attractive risk-adjusted returns that match conventional products.

Our findings also have significant policy implications for regulators and other stakeholders in the UK financial system. For example, Islamic banks could be incentivised to explore alternative funding sources, such as Sukuk or other forms of equity-based financing, thereby reducing their reliance on customers' deposits, which is often volatile. The Bank of England may also consider Islamic liquidity management tools to enforce compliance. Additionally, in recognition of the vulnerabilities Islamic banks face during periods of monetary tightening, regulatory authorities should consider implementing stress tests specific to interest rate shocks. A framework that will compel Islamic banks to devote a sizeable percentage of their funds to participatory financing, with the return strictly tied to the performance of underlying investments rather than some conventional rates, can



also help reduce the influence of interest rates on Islamic banks' operations. Also, governments and regulators should consider providing tax incentives for customers who remain with Islamic banks during periods of high interest rates to ensure the stability of the fragile Islamic banking sector.

Finally, the result of our analysis may have been limited by the use of annual data rather than monthly panel data, which could have given a better picture of the relationship between the dependent variable and the explanatory variables. It is hoped that future studies can use higher-frequency data for better analysis and results.

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