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EDITORIAL

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the Name of Allah, Most Gracious, Most Merciful

ACADEMIC INTEGRITY

It is easier to describe academic integrity in terms of what it is not. Plagiarism is often associated with a lack of academic integrity. Lack of academic integrity is also manifested in the use of inaccurate data, misrepresentation of data, and misuse of artificial intelligence (AI) tools for paraphrasing in academic writing.

In an article on ‘Research Ethics: Decoding Plagiarism and Attribution’, iThenticate describes ten forms of plagiarism and attribution issues as rated by several hundred scientific researchers according to their perceived degree of occurrence and seriousness. Failure to provide accurate citations and not citing a reference when paraphrasing were not the only types of common plagiarism mistakes. Many authors do not realise that reusing work from their own previously published articles without attribution is a case of self-plagiarism. Also, submitting a manuscript to multiple publications, resulting in the same article being published more than once, is a serious violation of research ethics and academic integrity. The latter was ranked second among the most common forms of plagiarism by the iThenticate report. The forms of plagiarism perceived as being most serious include: taking the work of another author and publishing it under one’s own name; verbatim copy-and-paste without proper attribution; providing inaccurate authorship; listing authors who made no contribution to the research; and denying credit to contributing authors.

While it is the responsibility of authors to uphold the highest values associated with academic integrity, such as honesty, trust, fairness, respect and responsibility, publishers and journal editors are equally responsible to ensure that submitted manuscripts do not breach academic conduct standards. Plagiarism detection software such as iThenticate or Turnitin is often used to detect the similarity index of the content with other sources, thus helping editors to determine if the content draws significantly from other publications or has been previously published elsewhere, either partly or in a substantially similar form, by the same authors. Submitted articles often have to be passed through such software multiple times and adjusted accordingly to ensure a consistently low similarity level at the different stages of the publication process. Based on the editor’s experience at ISRA International Journal of Islamic Finance (IJIF), it has even been discovered, just as an article is about to be published, that an article of similar content was recently published elsewhere. Therefore, authors have the moral responsibility to explicitly declare if their submission draws from an unpublished conference paper or dissertation work and confirm the originality of their manuscripts.

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Following best practices in publishing, IJIF now requests authors to declare each author's contribution in the work submitted, make a conflict of interest statement, acknowledge any research funding or grant received or any other forms of contribution, and make available a summary of their data which will be provided to readers upon request. This information is now published at the end of each article to meet the standards of publishing ethics.

ARTIFICIAL INTELLIGENCE AND ACADEMIC WRITING

While technological advances have significantly facilitated the dissemination of research and made accessible a wealth of knowledge to writers, the advent of AI has posed additional challenges to academic integrity principles. Without the facility provided by AI tools, researchers used to make personal efforts and, at best, made use of synonyms to paraphrase others' work and avoid literal copy-and-paste of texts. AI-powered tools such as plagiarism changers and word/text spinners can now paraphrase texts and even whole manuscripts while retaining the original ideas and meanings, maintaining coherence and improving language presentation. If ideas are not attributed to the original source through citations, this is still called paraphrasing plagiarism, irrespective of whether the intention was deliberate or unintentional.

Plagiarism software detectors like Turnitin now provide details on the percentage of AI-written content within the similarity report issued for a new submission. In our opinion, a high AI similarity index, say beyond 30 per cent, would mean that it is highly unlikely that the authors have produced an original work. IJIF requests authors to explain a high similarity index for both plagiarism checks and AI-written content.

IJIF Volume 15 Number 4 December 2023

This issue publishes seven articles on various areas of Islamic finance. As the Islamic finance industry is expanding in different jurisdictions, most of these articles cover aspects of Islamic finance development in leading countries such as Malaysia and Indonesia, as well as countries trying to advance Islamic finance such as Uzbekistan and Thailand. The key objectives of these articles are as follows:

- **'An Exploratory Study of *Manfa'ah* (Usufruct) in *Ijārah* Accounting from the Shari'ah Perspective'** by Rahmat Ullah, Irum Saba and Riaz Ahmad. This article addresses the Shari'ah perspectives of treating *manfa'ah* (usufruct) in the *ijārah* (lease) contract as *māl* (asset) according to the new standards on leasing issued by the International Accounting Standards Board (IASB) and on *ijārah* issued by AAOIFI. It particularly examines the legal status of ownership of usufruct following its treatment as *māl* in *ijārah* financing.
- **'Viability of Cash Waqf-Linked *Shukūk* in Malaysia'** by Sherin Kunhibava, Aishath Muneeza, Zakariya Mustapha, Maryam Khalid and Thong Ming Sen. In view of the successful introduction of cash waqf-linked *shukūk* (CWLS) in

Indonesia, this article examines the potential for implementing CWLS by Islamic financial institutions in Malaysia and discusses its viability under the relevant legal and regulatory frameworks of waqf and *ṣukūk* in the Malaysian context.

- **‘Legal Challenges in Establishing the Islamic Capital Market in Uzbekistan’** by Alam Asadov, Ikhtiyorjon Turaboev and Mohd Zakhiri Md. Nor. The Islamic capital market is yet to be developed in Uzbekistan. This study discusses the possibility of its introduction and investigates the legal barriers impeding the process.
- **‘The Moderator Effects of Owner-Manager Knowledge on the Intention to Adopt Islamic Financing Facilities in Malaysia’** by Hazalina Mat Soha, Mohd Zukime Mat Junoh, Tunku Salha Tunku Ahmad and Md. Aminul Islam. This article assesses the role of owner-manager knowledge as a moderating factor in the relationship between innovation, organisational and environmental characteristics, and the intention to adopt Islamic financing facilities in the context of Malaysia.
- **‘Investigating Equity-Based Financing and Debt-Based Financing in Islamic Banks in Indonesia’** by Hasan Mukhibad and Doddy Setiawan. Using data over the period 2009–2019, this article investigates whether equity-based financing as practised by Islamic banks in Indonesia generates fixed income similar to debt-based financing.
- **Factors Influencing Thai Muslims’ Willingness to Donate Cash Waqf to Religious Projects** by Aris Hassama and Nor Asmat Ismail. This study looks into the motivational and economic factors that positively impact the willingness of cash waqf donors in the southernmost provinces of Thailand to donate to religious projects.
- **‘Exploration of a New Zakat Management System Empowered by Blockchain Technology in Malaysia’** by Amelia Nur Natasha Nazeri, Shifa Mohd Nor, Aisyah Abdul-Rahman, Mariani Abdul-Majid and Siti Ngayesah Ab. Hamid. This article seeks to examine how the proposed implementation of blockchain technology in the current zakat management system in Malaysia would work and how it would help improve efficiency in the zakat collection and distribution process.

We congratulate the authors for the successful publication of their articles and wish our readers a pleasant read.

Allah (SWT) is the Bestower of success, and He knows best.

Beebee Salma Sairally

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AN EXPLORATORY STUDY OF *MANFA'AH* (USUFRUCT) IN *IJĀRAH* ACCOUNTING FROM THE SHARĪ'AH PERSPECTIVE

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ABSTRACT

Purpose — The recording and reporting of usufruct in *ijārah* (lease) financing is a major issue in both conventional and Islamic accounting standards. The International Accounting Standard (IAS-17) was revised and replaced by the International Financial Reporting Standards (IFRS-16) to address this issue. In response, the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) revised and issued a new *ijārah* Financial Accounting Standards (FAS-32). Considering this ongoing issue, the aim of this study is to explore *māl* (asset) and *milkīyah* (ownership) as the two significant Sharī'ah dimensions of *manfa'ah* (usufruct) in *ijārah* accounting.

Design/Methodology/Approach — This study adopts the qualitative research methodology and uses the content analysis technique whereby secondary data was collected from the related books of Islamic *fiqh* (jurisprudence) as well as from the accounting and Sharī'ah standards of *ijārah*.

Findings — The study found that *manfa'ah* is a *māl* and as per the *milkīyah* structure, the lessee can represent legal ownership of the leased assets under his possession, and accordingly, *manfa'ah* could be registered in the lessee's name.

Originality/Value — To the best of the researchers' knowledge, this study constitutes the first of its kind in the existing literature that focuses specifically on the Sharī'ah perspective of usufruct in *ijārah* accounting.

Practical Implications — The findings of this study contribute to help financial and Sharī'ah experts and Islamic financial institutions (IFIs) in their understanding of *manfa'ah* and the adoption and implementation of the new *ijārah* accounting standard. This study will also help researchers in their future research.

Keywords — *Ijārah*, *Māl*, *Manfa'ah*, *Milkīyah*, Ownership, Right-to-use, Sharī'ah

Article Classification — Research paper

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INTRODUCTION

Ijārah (lease), a compensatory usufruct-based product, is used widely by Islamic financial institutions (IFIs) (ACCA & KPMG, 2012). In the mix of various Islamic finance products worldwide, 26 per cent is represented by the *ijārah* product in the Islamic banking industry as well as in Islamic leasing institutions, while in the capital markets the share of *ṣukūk al-ijārah* is almost 70 per cent (Abdellatif, 2020). According to the Islamic Banking Bulletin issued by the State Bank of Pakistan (SBP), financing and related assets of Islamic banking institutions in Pakistan reached PKR1,689.8 (USD11.05) billion as at end September 2020, and the share of *ijārah* represented 5.3 per cent of all modes of financing (SBP, 2020). These market shares and volumes of *ijārah* show its significance in the Islamic finance industry.

Ijārah means 'leasing of property pursuant to a contract under which a specified permissible benefit in the form of a usufruct is obtained for a specified period in return for a specified permissible consideration' (AAOIFI, Sharī'ah Standard No. 9, 2014). Though *ijārah* seems synonymous with conventional lease, conceptually the two are different. These differences are based on the Sharī'ah principles regarding rental contracts (Ṣamdānī, 2008). The most prominent and relevant differences are:

1. A finance lease is long-term and of a binding nature. According to its agreement, all the risks associated with the ownership are transferred from the lessor to the lessee—a practice which is not acceptable in Islamic law. It is due to the combination of two contracts (sale and *ijārah*) in a single arrangement. Therefore, an alternative suggestion is not to bind the lessee to acquiring ownership in the lease agreement. A unilateral promise to sell may be signed with the documents kept separated from those of the *ijārah* (lease) contract. This will make the lessor bear all the liabilities and major expenses related to the leased asset during the entire lease period. According to Bank Negara Malaysia (BNM, 2018), the *ijārah* contract ends with the transfer of ownership to the lessee, and it should contain a mechanism for this transfer from lessor to lessee during or at the termination of the lease period.
2. In a finance lease, risks and liabilities of the lessee for rent begin prior to the delivery of the leased asset (from the contract date). This contravenes the Sharī'ah requirement of *ijārah*. According to Sharī'ah, rent can be charged only after the lessee takes possession of the leased asset for its use (Kamali, 2005). In *ijārah*, the leased period commences from the delivery date of the leased assets (Abozaid, 2016).
3. Stipulating a penalty of a certain amount in the finance lease agreement in case the lessee defaults on payment is not acceptable in the Sharī'ah according to the majority of *fiqh* schools. It is suggested that a penalty clause may be added to the *ijārah* agreement if the lessee makes late payment over the specified period. However, this amount will go to charity and the lessor cannot be compensated for his opportunity cost (Usmani, 1999).

These conceptual and theoretical differences have been the interest of researchers, and there is voluminous literature discussing these issues. However, to the best of the researchers' knowledge, there is no literature specifically on the Sharī'ah perspective of usufruct in *ijārah* financing.

Moreover, whether to classify usufruct as *māl* (asset) was a matter of debate among classical Sharī'ah jurists. Usufruct is considered an asset according to the Sharī'ah standards issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), a view which is globally accepted. Some contemporary scholars of the Ḥanafī School, which had declined to classify usufruct as *māl* in the classical era, have agreed to the AAOIFI classification. However, its nature as an asset and the status of its ownership have not been discussed in the literature.

Furthermore, the AAOIFI Accounting Board (AAB), in their efforts to improve the existing financial reporting standards, revised the financial accounting standard (FAS-8) and replaced it with a new *ijārah* accounting standard (FAS-32). The purpose is to address the issues faced by the market and the observations noted over the past years, as well as to improve the existing accounting treatments in line with global best practices. In this standard, the accounting treatment of *ijārah* transactions has been changed significantly from the lessee's perspective (AAOIFI, 2020).

In contrast to the earlier off-balance sheet approach for *ijārah* accounting, FAS-32 prescribes a different accounting model in the hands of the lessee. According to it, the lessee will bring the *ijārah* transaction on-balance sheet. The lessee shall recognise the usufruct of the leased asset as a 'right-of-use asset' and corresponding liability in its balance sheet (AAOIFI, 2018). Revisiting the previous standard and issuing the new standard is expected to improve the overall accounting and financial reporting practices of the Islamic finance industry. AAOIFI (2020) claims that the purpose is to bring *ijārah* accounting closer to global best practices without compromising Sharī'ah principles or bringing about any alterations in the essence of the *ijārah* transaction.

This study addresses the issue that emerged from treating usufruct in the *ijārah* contract as an asset according to the new standards on leasing issued by the International Accounting Standards Board (IASB) and on *ijārah* issued by AAOIFI. Usufruct (*manfa'ah*) in *ijārah* contracts has been addressed by accounting standard-setting bodies across the globe. There was an issue of its accounting treatment in the book of the lessee. For conventional leases, the previous standard, IAS-17 was revisited, and this dilemma was resolved recently by replacing it with a newly issued standard (IFRS-16), effective 1 January 2019. According to this standard, a lessee recognises a right-of-use asset and a lease liability upon the commencement of the lease contract (IFRS, 2016).

On the other hand, according to AAOIFI (2020), FAS-8 was originally issued to cater for the problem of distinction between a conventional lease and Sharī'ah-compliant *ijārah* and to prescribe its correct accounting treatment in line with its true nature. For improvement in the accounting of Islamic financial products and standardisation, the new *ijārah* accounting standard FAS-32 records *manfa'ah* in *ijārah* financing as *māl* in the lessee's statement of financial position.

However, in the Islamic law of contracts, if something is proved as *māl*, the related significant dimensions such as the status of its ownership (*milkīyah*), the issues of zakat (compulsory alms), waqf (endowment) and *irth* (inheritance) cannot be ignored. There is a need to provide the Sharī'ah basis for treating usufruct as an asset and to address the status of its ownership, considering it is a significant dimension of *māl*. Based on the above-discussed

problem statement, the objective of the current study is to explore the Sharī'ah perspective on usufruct in terms of its consideration as an asset and its status with regard to ownership. The research questions asked are:

1. What are the views of the four major *fiqh* schools about the acceptability of usufruct (*manfa'ah*) as an asset (*māl*)?
2. What is the legal status of the ownership of usufruct in *ijārah* contracts?

This study is presented and organised in five sections. After the introduction, it briefly highlights the background, research objectives, research problem, scope and importance of the study. The next section reviews the available previous literature and explores related *fiqh* (Islamic jurisprudence) books to examine the Sharī'ah status of usufruct. The usufruct under the study is related to *ijārah*. Therefore, *ijārah* and its types are also discussed. Since the objective of this research is to understand the Sharī'ah principles of usufruct in terms of *māl* and *milkīyah*, the concept of *māl* according to the four *fiqh* schools and *milkīyah* and its relevant types are discussed. Thereafter, the research methodology, the type of research method used in the study and the sources of data collection are discussed. The next section then deals with the analysis of the research study, which is based on an examination of *fiqh* books from the four major schools. The research is summarised in the conclusion, its practical implications are discussed, and recommendations are made.

LITERATURE REVIEW

Concept of *Ijārah*

Ijārah is an Arabic word from *ajara*, which means to reward or remunerate. If its morphological structure changes to *ājara*, then it means mutual agreement on an *ijārah*; while changing to *ista'jara* will mean 'to rent, hold under lease, engage the services of' (Wehr, 1976, p. 5).

Ajr is used for the worker's wage, whereas *ujrah* is used for the rental payment against the use of an asset (Kamali, 2005). The hirer or the lessee is called *must'ajir*; the lessor, or the person who receives the wages or rent, is named *ājir* or *mu'ajjir*. The leased property is termed as *majūr* (Marghīnānī, 2005).

According to Khan (2021), *ijārah* is a rental-based financing contract in compliance with Sharī'ah principles, in which the use of an asset is rented out for a particular period against a pre-defined rent. Šamdānī (2008, p. 15) has incorporated its literal meaning in the technical definition of *ijārah* as follows: 'permissible and specified usufruct of an asset or a person for a specified compensation'. It means *ijārah* is 'possession of usufruct for a consideration' (Ghuddah, 2007). Moreover, AAOIFI (2014) defined *ijārah* as used in its standard in the modern context as 'leasing of property pursuant to a contract under which a specified permissible benefit in the form of a usufruct is obtained for a specified period in return for a specified permissible consideration'. According to AAOIFI's FAS-32 (2020), *ijārah* is 'a contract, or part of a contractual agreement, that transfers the usufruct of an asset from the lessor to the lessee for a period of time in exchange for an agreed consideration'.

Concept of *Manfa'ah*

Manfa'ah is a verbal noun derived from *naḥ*, which means any benefit or advantage. It also includes the means used in seeking such benefits or advantages to reach a beneficial goal. The plural form of *manfa'ah* is *manāfi'*. According to AAOIFI, usufruct is a 'legally enforceable limited right related to an asset including the two property interests: *usus* (use) which means the right to use or enjoy such asset and *fructus* (fruit) which means the right to derive profit or benefit from such asset but does not entail risks and rewards incidental to ownership' (AAOIFI, 2020).

The word *manāfi'* includes whatever benefit is attained by using anything in general, either in tangible or intangible form. Examples include the milk of a cow, the rent of a house, the fruits of a tree, and the like (ISRA, 2010). The term *manāfi'* has been used by the majority of the jurists to imply only the benefits derived from material things by way of their utilisation which are ostensible. Some said: 'all the contingent things associated with tangible assets that could not exist without them and the yield resulting from them such as residence in a house, fruit from a tree and milk from an animal' (Khaff, 1950, p. 27).

Furthermore, the *Majallah* defines *manfa'ah* as 'benefits derived from the use of an 'ayn (tangible asset)' (Majallah, 2010, p. 100). Marghīnānī (2005, vol. 3, p. 201) defines it in *Al-Hidāyah*, as 'a thing which corresponds to 'ayn such as residence in a house, getting services and the like'. Some jurists, such as Al-Nawawī, Al-Subkī and Al-Ba'ī, differentiate *manfa'ah* from *ghallah* (yield). They describe fruits (benefits) from trees (plants), wool and milk from sheep, and produce from the ground as *ghallah* and not as *manfa'ah* while Sharbīnī and Ibn Ḥajar Al-Haytamī declare that both are synonymous (Qalyūbī, 1998, vol. 3, p. 173). Others use the term *kirā* for the contract on usufructs of land, houses, vessels and animals which they consider synonymous to *ijārah* (Ghani, 2018).

Manfa'ah is further elaborated by Wahbah al-Zuhaylī under the law of sale. He states, 'The usufructuary right (*manfa'ah*) of a thing signifies the right of enjoyment of anything for the lifespan of the party which is entitled to the benefit of the usufruct. *Manfa'ah* is therefore generally regarded as forming part of goods which are the subject matter of a sale contract' (Al-Zuhaylī, 1984, vol. 4, p. 40).

Ḥaqq, Intifā', Tamlik al Intifā' and Tamlik al Manfa'ah

In the literature, it is found that 'right', 'right-to-use an asset' and 'usufruct' are used interchangeably. However, it is worth noting that *manfa'ah*, *intifā'*, *ḥaqq* and *ḥaqq al-intifā'* convey different meanings in Arabic, particularly in *fiqh*. Therefore, it is necessary to differentiate between these terms.

Literally, *ḥaqq* (right) means to be confirmed and necessary. Technically, *ḥaqq* is an exclusive privilege recognised by the Sharī'ah, which either results from an obligation or from an authority. This term includes all the privileges, powers, tangible assets and usufruct belonging to a person. Examples include the right to sell commodities or the right to build another storey on a house (ISRA, 2010).

Intifā' means 'to take benefit from something'. Technically, it means that a person has the authority and right to use an asset and to get benefit from it, such as the right to use a house or a piece of land.

Tamlīk al intifā' gives the beneficiary the right to use, but it does not give him the right to transfer it to a third party without the consent of the owner. On the other hand, *tamlīk al manfa'ah* (alienation of usufruct) transfers the full ownership of the usufruct, which includes full right of its disposal. The new owner of the usufruct can personally use it or lease it to a third party. To 'own' usufruct is, thus, more general than having the 'right to use' a thing (*al-intifā'*). Every owner of usufruct can personally take benefit from it, but one who gets the right of benefit does not become the owner of the usufruct (ISRA, 2010).

***Māl* (Asset, Wealth, Property)**

In response to the question regarding whether usufruct can be considered *māl*, it is necessary to first describe the concepts of *māl* and usufruct and their types. If usufruct qualifies as *māl*, then it is also likely to be a valid subject of ownership and proprietary dispositions. Therefore, the concept of ownership and its types are also discussed hereunder.

A famous dictionary of jurisprudential terms, *Qāmūs al-Fiqh*, defines *māl* as being either derived from *mīm-yā-lām* or from *mīm-wāw-lām*. In the former case, it means *ma yamīlu ilayhi al ṭab* (that towards which one inclines), i.e., *shay marghūba* (something desirable), while in the latter case, it signifies *tamawwul* (something capable of earning) and which can be stored. Both these terms are inherently the same, but the term used in the first case is much broader than in the second case (Rahmani, 2007).

Literally, anything capable of being owned is known as *māl* (Abadi, 2003). *Māl* shows the effect a man may acquire and possess either from 'ayn or *manfa'ah*. For example, gold, silver, animals and plants are corporeal assets whereas residence in a house and riding of vehicles are regarded as usufructs of their respective tangible assets. On the other hand, anything a person cannot possess cannot be considered as *māl* (Ibadi, 2000, p. 171).

Māl has been defined and interpreted differently by jurists of various *fiqh* schools (Islam, 1999). In this regard, the opinions can be categorised as that of the Ḥanafīs as opposed to that of the majority. Their approaches towards the concept of *māl* are briefly discussed as follows:

The Majority (Non-Ḥanafī Schools)

The Shāfi'ī School

According to the Shāfi'ī School, *māl* includes both corporeal objects and usufructs as in the definition of sale in the famous book *Tuḥfat al-Muḥtāj* that sale is an exchange of *māl* between contracting parties, whether 'ayn or *manāfi' mu'abbadah* (permanently held usufructs) (Al-Haytamī, 1983). A well-known Shāfi'ī jurist, Al-Zarkashī, (1985, p. 222) defines *māl* as 'anything from which benefits can be derived, whether in the form of 'ayn or in the form of *manāfi'*. It is further elaborated that the term *māl* should be construed as something of value which is exchangeable; the *ḍamān* (liability) of paying compensation should be on its destructor; and something the people would not usually throw away or disown—that is, people value it—such as money and the like (Al-Suyūṭī, 1983, p. 32).

The Ḥanbalī School

According to Ibn Urfah from the Ḥanbalī School, sale is a compensatory contract excluding usufructs. However, the majority of the Ḥanbalī jurists consider both 'ayn and *manfa'ah* as *māl*.

Ibn Qudāmah (1994, vol. 3, p. 152) mentioned *māl* as anything that can be benefited from it in non-necessity situations. On the other hand, Al-Buhūtī (1993, p. 152) considers *māl* to be anything which has beneficial and permissible use in all circumstances, and keeping it for future use is permissible, even if it is not for times of necessity (Paracha, 2018). It can also be described as something in which a permissible usufruct exists that can be accessed even if one does not have a need or at the time of necessity (Al-Kharqī, 1993, p. 71).

The Mālikī School

The definition of sale by some Mālikī jurists leads to the permissibility of sale of usufructs and rights. Usmani (2015) explains that definitions from the Mālikī School show the inclusion of unending usufructs in *māl*. One of the Mālikī jurists, for instance, defined *māl* as anything that is customarily beneficial and accepts '*iwaḍ* (consideration)' (Abd al-Wahhāb, 2008).

Furthermore, one of the jurists from this school relates *māl* with ownership and states that it is anything which a person owns and that no one can interfere in without his permission (Al-Shāṭibī, 2014). On the contrary, some Mālikī jurists are also the proponents of the Ḥanafī view regarding usufructs as *māl*. For instance, al-Majajī (2001, p. 139), with reference to Ibn 'Arafah, states, 'Sale is a commutative contract excluding usufructs (*manāfi*)'.

The Ḥanafī School

A famous definition of sale according to Ḥanafī jurists is 'exchange of something desirable with something desirable'. Al-Kāsānī (1993) says that something desirable means *māl*. Usmani (2015) describes desirability as something which is beneficial. In the *Majallah* (2010, vol. 2, p. 81), *māl* has been defined as 'a thing which a man naturally inclines to and which is possible to store for times of necessity'. It has been further elaborated as 'the things other than human beings which have been created for the benefit of man, and which a man can hoard and dispose of at his option. Hence, a slave, who has some of the attributes of property, is not property, as it is not lawful to kill him' (Ibn 'Ābidīn, 2003, vol. 4, p. 501).

It is further elaborated by Mīrah (2012) with reference to Ibn Nujaym, a famous jurist of the Ḥanafī School, that the *fiqh* scholars qualify anything as *māl* if it has some financial value and which is possible to store for future use when needed. This applies to tangible things and excludes the transfer of ownership of usufruct from the definition of *māl* because usufructs are intangible.

Ibn 'Ābidīn (2003), when explaining the Ḥanafī stance on this matter, states that *māl* is something that humans instinctively covet and can be kept for a period of time. According to Usmani (2015), 'electricity and gas are such assets (*amwāl*) towards which people are inclined. It is impossible to include them in *māl* on the basis of tangibility in nature, but still, their buying and selling is in practice and permissible.'

Manfa'ah as Māl and Subject Matter in Sale Transactions

A famous contemporary Ḥanafī scholar states that human beings derive benefits from three types of things: '*ayn* (corpus), *manfa'ah* (usufruct) and *ḥaqq* (right)' (Rahmani, 2007). The majority of Islamic jurists and a few of the contemporary Ḥanafī scholars consider *manfa'ah* as *māl*, affirming that *māl* includes services, usufructs and intangibles (Obaid, 2007). 'Allāmah Zarqānī

states that *manfa'ah* is included in the definition of sale; *buyū'* is the plural of *bay'*, which means that it has many types such as *bay' al-'ayn* (sale of a corporeal asset), *bay' al-dayn* (sale of debts/liabilities) and *bay' al-manfa'ah* (sale of usufruct) (Usmani, 2007).

The question of whether *manfa'ah* can be made the subject matter in financial contracts depends upon the definition of sale by different Islamic jurists. Discussions relating to sale are summarised below:

1. In exchange-based contracts, the subject matter must have some value. The usufruct of an object is considered *māl* and is thus eligible to become the subject matter in such transactions (Ayub, 2007). According to Al-Haytamī (1983, p. 222), 'Sale is an exchange of an asset (*māl*) with another asset (*māl*) with the condition of getting benefits from the ownership of a specified corpus (*'ayn*) or from usufruct (*manfa'ah*).' Ibn al-Qāsim Gharbī says 'The best definition of sale is: to make someone owner of any valuable corpus (*'ayn*) or of usufruct (*manfa'ah*), and usufruct includes ownership of the right of construction' (Usmani, 2008, p. 172).
2. Some jurists define sale as a financial contract with the transfer of ownership of any *'ayn* or *manfa'ah* (Al-Sharbīnī, 2000). According to Al-Buhūtī (1993, p. 160) from the Ḥanbalī School, 'Sale is an exchange of any valuable corpus or of any permissible usufruct in general'. Al-Mardāwī, after mentioning various definitions and discussing the objections to them, in *Al-Insāf*, writes, 'Sale means transferring ownership of any valuable *'ayn* or of any permissible *manfa'ah* permanently in exchange for something valuable' (Al-Mardāwī, 2004, vol. 2, p. 489).
3. Furthermore, Ibn 'Arafah defines sale as a compensatory contract excluding usufructs. However, according to some Mālikī jurists, usufructs and rights can be bought or sold. For instance, the definition of sale in *Al-Sharḥ al-Ṣaghīr* leads to the permissibility of sale of usufructs and rights (Usmani, 2008). This view is supported by Ibn Qudāmah (1985, p. 271), who states, '*Ijārah* is a sale of benefits or usufruct, and usufruct is governed by the same legality as the tangible asset'.

Thus, the acquisition of *māl* necessitates the importance of ownership. The ability to own property is one of the basic individual liberties recognised by Sharī'ah and by the constitutions of the overwhelming majority of countries. The Sharī'ah also emphasises the protection of ownership of the property. Ownership is both a freedom and a right, but ownership as a freedom precedes ownership in the sense of a right. A discussion of the concept and types of ownership follows.

Concept of *Milkīyah*

The basic theory of *milkīyah* in Islam is that Allah (SWT) is the true owner of everything, whereas human beings, in their capacity as vicegerents of Allah (SWT), are simply the trustees or custodians of properties. On the one hand, the Sharī'ah recognises the freedom of the individual to own property, and on the other, it also takes measures to safeguard the rights of the owner of the property (Kamali, 2008).

Literally, *milkīyah* is an Arabic word derived from *milk*, which means a situation of possessing something along with the authority to dominate or dispose of it. It could also mean anything with the attribute of *māl* that a person has owned and has control over (Ghani, 2018).

Technically, ownership is a legal relationship between a person and an object which entitles the person to an exclusive right of disposition and control over the object. The person is called *mālik* (owner), whereas the owned object is called *mamlūk*. This ownership is associated with possession, whether physical or constructive. Al-Khafīf (1950, p. 41) defined it as an interest that is granted by the Sharī'ah. According to Mūsā (1996, p. 366), ownership signifies effective control which enables a person to exercise exclusive utilisation and disposition of a thing in the absence of any legal impediment.

Al-Qarāfī links *milkīyah* with *ḥukm Shar'ī* (Sharī'ah rulings) and defines it as 'a Sharī'ah ruling or juridical attribute (*ḥukm Shar'ī* and *wasf Shar'ī* respectively) which is specified in a corporeal matter or in its *manfa'ah* (usufruct) and enables a person to control, dispose, or exchange it according to his freewill without any legal restrictions' (Kamali, 2008, p. 211).

However, this definition faces criticism from Ibn Al-Shāt for equating ownership with *ḥukm Shar'ī*, although the two are significantly different (Siddiqui, 2006). A concise definition of ownership that avoids many pitfalls is that of Muṣṭafā Al-Zarqā (1999); he defines it as an exclusive assignment (*ikhtisās ḥājiz*) under the Sharī'ah which enables only the owner to control or dispose of it unless there is a legal impediment against it.

Thus, *milkīyah* is not a physical thing but, rather, an abstract one and a kind of right approved by the Sharī'ah. It is a right to prevent from use or to dispose something by a person. If the Sharī'ah approves this relationship between a man and property (*māl*), then *milkīyah* of property gets associated with that man; otherwise not.

Types of *Milkīyah*

According to Al-Zarqā (2004), there are two basic rights combined in any asset: the owner's right to the title (*raqabah*) and the beneficiary's right to the usufruct. This entails classifying ownership into the following two types:

1. ***Milkīyah tāmmah***: It is considered complete ownership, which means that the owned object (*māl mamlūk*) with all the relevant rights in the Sharī'ah are attributed to the owner (Siddiqui, 2006). Muhammad Qādri Pasha states in his book *Murshid-ul-Hairān* that '*milk tāmm* is a situation in which the owner has the right of use and control on both '*ayn* as well on *manfa'ah*, and the owner can enjoy all the benefits of the *shay mamlūk* (owned object) without any restrictions' (Pasha, 1890, p. 89). Similarly, Mohammad Hussin & Mohammad Hussin (2015) elaborate that complete ownership happens when the owner legally or beneficially owns the property together with its uses or *manfa'ah*. A person with complete ownership of an asset has the right to use it freely the way he wishes. He can enter into all permissible contracts like *bay'* (sale), *hibah* (gift), *ijārah* (lease) or *i'ārah* (Siddiqui, 2006).
2. ***Milkīyah nāqisah***: It is considered incomplete or deficient ownership, which means ownership of either the '*ayn* or *manfa'ah*. The owner is the owner of the corpus with the exception of the usufruct, or the owner of the usufruct with the exception of the corpus, or owner of the title only, or of the usufruct only (Siddiqui, 2006; Ḥassan, 2013). For

example, in a situation of a leased property, the owner can be considered as having incomplete ownership over the asset as, although he has authority over the property by reason of being its owner, he does not possess its *manfa'ah* as the use of the property has been leased out to a third party or tenant. Article 14 of *Murshid al-Hayrān* states 'The ownership of property with the exclusion of usufructs is permissible, whether of movable or immovable property' (Pasha, 1890, p. 90). **Figure 1** summarises the description of complete and incomplete (partial) ownership.

Concept of Beneficial and Legal Ownership

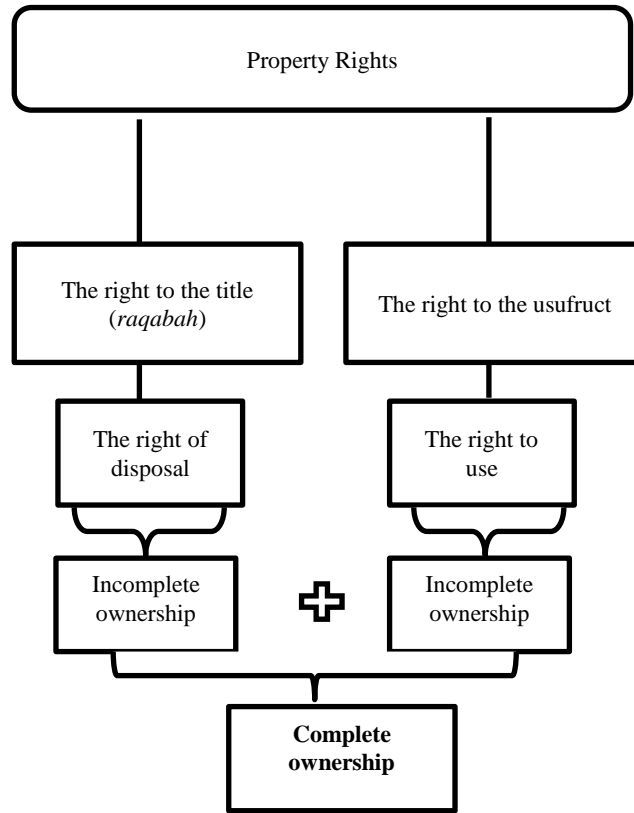
The English common law classifies ownership into two: beneficial ownership and legal ownership. Legal ownership is represented by legal registration; the legal owner will be considered the entity in whose name the asset is legally registered. He is authorised to dispose of that asset by sale, investment or other means. So, the legal owner is the entity recognised and authorised by law as the owner of the asset and who, for the benefit of others, holds the legal title to the asset (Black, 1968).

On the other hand, the beneficial owner is the entity to whom all the benefits of the asset go. According to Black's Law Dictionary (2009), an entity is considered a beneficial owner if it is recognised in equity as the owner of a thing because of the possession of its use and title although legal title does not belong to him but, rather, belongs to a person whose property is held in trust by that entity. It is obvious from this definition that beneficial ownership is the right of an entity to use a property or to get benefit from it though he is not the legal owner of that asset. The legal owner acts as the trustee having the right to hold the property legally. So, the legal owner is considered the nominal owner whereas the beneficial owner is the real owner of the asset (Brown, 2003).

In Sharī'ah, ownership of the asset and its usufruct together is beneficial ownership (Āla'ru, 2014). In fictitious sale and purchase contracts, beneficial ownership is invalid because the *milkīyah* attributes and characteristics as required by the Sharī'ah are not fulfilled. On the other hand, beneficial ownership is valid in true sale and purchase contracts because legal ownership is merely in the form of a registration, which is not a Sharī'ah requirement. According to Al-Nawawī (2001), registration of names is not one of the tenets of Sharī'ah. It means that through the sale of an asset by valid offer and acceptance, the buyer will receive legitimate ownership, although the legal title is still in someone else's name. Since the change of ownership takes time, therefore, the term 'beneficial ownership' is used.

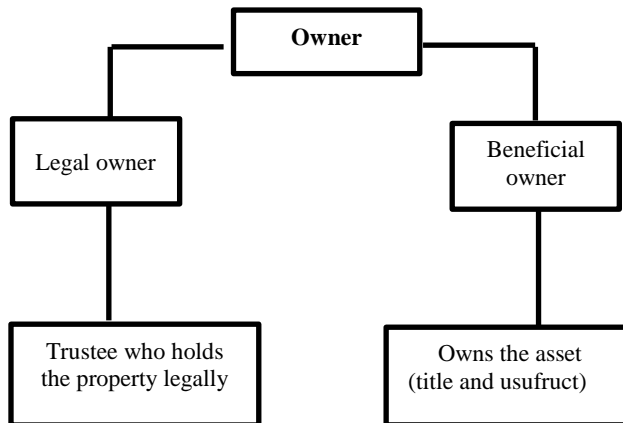
Now, a question arises as to whether beneficial ownership is considered complete ownership or partial. Under Islamic law, it is classified as *milkīyah nāqīṣah* (partial ownership). For instance, if a person is given the right by another person to use his asset, he will be considered as possessing partial ownership of that asset. A person who has given away the right to use of an asset to another, for the time being, has no more right to the use of his own asset although he is the owner and has the right of control over that asset. The owner has therefore beneficial ownership, and when he gets his asset back will gain his complete ownership (Kamali, 2008). Beneficial and legal ownership from the Sharī'ah perspective are depicted in **Figure 2**.

Figure 1: Complete vs. Partial Ownership



Source: Adapted from Mashal *et al.* (2017)

Figure 2: Beneficial vs. Legal Ownership

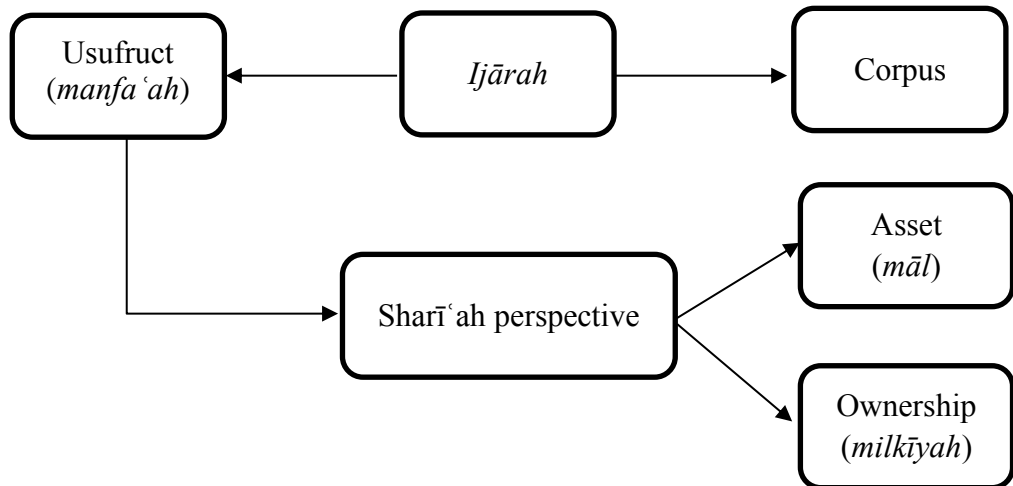


Source: Adapted from Mashal *et al.* (2017)

Al-Zarqā (2004) explains that the purpose of ownership is to derive benefit from the property owned. If there is no expectation of benefit from an asset, its ownership would be meaningless. For complete freedom to benefit from an asset, dispose of it and consume it lawfully, the Sharī'ah ratified the concept of ownership of the title only. He further states that ownership of the usufruct can be temporary while ownership of an asset cannot be made temporary. Its causes make it of a permanent nature. Thus, *milkīyah tammah* (complete ownership) consists of both the ownership of the title as well as the usufruct, therefore, sale of an asset results in the complete ownership of the buyer (Al-Zarqā, 2004).

Figure 3 shows how the study was put forward with the support of literature, starting with *ijārah* which has two components, i.e., corpus and usufruct. In this study, usufruct is considered from the Sharī'ah perspective in terms of its status as an asset and ownership.

Figure 3: Framework of the Literature



Source: Authors' own

RESEARCH METHODOLOGY

This study considers qualitative content analysis as the most appropriate technique for the purpose of fulfilling the objective to explore the Sharī'ah aspects (*māl* and *milkīyah*) of *manfa'ah*. A detailed study of *fiqh* books is therefore adopted in this research. Thus, this study explores and collects the views of Sharī'ah jurists belonging to the four well-known schools which are present in a scattered form in the books of *fiqh*.

Specifically, content analysis means the analysis of communication messages, whether verbal, non-verbal or visual (Cole, 1988). According to Krippendorff (2018), content analysis is a research method where inferences are drawn from available data, keeping in mind the context. These inferences should be valid and replicable. The purpose of this analysis is to provide knowledge, represent facts, draw new insights, and come up with guidelines that will help in the practical implementation of the study. This technique aims to reach a condensed yet broad phenomenal description. Its end result is to analyse the concepts or to make categories or classifications of the phenomenon under study. Then, based on these concepts and on their

classification, a model is presented. Qualitative content analysis is transparent and systematic in terms of research processes and is widely recognised in today's world (Vaismoradi *et al.*, 2016).

Sampling and Collection of Data

Secondary sources of data were required to execute this research. Data were collected from the traditional books of *fiqh*. In the collection of samples of the *fiqh* books, due care has been taken to ensure authenticity, reliability and standardisation. For this, the focus has been on the study of legitimate, authoritative and trustworthy Sharī'ah jurists and scholars.

For the interpretation and concepts of *fiqh* terminologies, the following dictionaries have been used:

1. *Qāmūs al-Fiqh* by Khalid Saif Ullah Rahmani (2007).
2. *Al-Qāmūs al-Muḥīt* by Al-Fayruz Ābādī (2003).
3. *Compendium for Islamic Financial Terms (Arabic-English)* by ISRA (2010).

Sampling for the Sharī'ah Status of Usufruct

Keeping in mind the objective of this study, the following key books of the well-known *fiqh* schools, as listed in **Table 1** (grouped in order of schools), have been selected. Although the list is not exhaustive, these books carry the main focus to answer the research questions.

Table 1: Fiqh Books Examined

Title of the Book	Year First Published	Author(s)	School of Thought	Keyword(s) used for Searching	Rationale for Selecting the Book
<i>Al-Ashbāh wa al-Nazā'ir</i>	1983	Al-Suyūṭī	Shāfi'ī	The following words have been used for searching the relevant details in these books: <i>milkīyah</i> , <i>manfa'ah</i> , <i>intifa'</i> , <i>ijārah</i> , <i>māl</i> , <i>manāfi'</i> , etc. However, these words have been searched in Arabic.	It is a very popular book of legal maxims, and almost all jurisprudential schools apply them where they deem fit.
<i>Tuḥfat al-Muḥtāj fī Sharḥ al-Minhāj</i>	1983	Al-Haytamī	Shāfi'ī		His books are considered very authentic in the jurisprudence of Shāfi'ī.
<i>Al-Manthūr fī al-Qawā'id</i>	2000	Al-Zarkashī	Shāfi'ī		It is the first alphabetic <i>qawā'id</i> work. There are a number of commentaries on and abridgements of it.
<i>Kashshāf al-Qinā'an Matan al-Iqnā'</i>	1993	Al-Buhūṭī	Ḥanbalī		It is a very famous book of the Ḥanbalī School and has a very detailed explanation of <i>fiqh</i> rules.
<i>Al-Mughnī</i>	1986	Ibn Qudāmah	Ḥanbalī		This book is considered the best book for the sources of the law and the methodology for extrapolating rules from the revelation.
<i>Al-Ishrāf alā Nukat Masā'il al-Khilāf</i>	2008	'Abd al-Wahhāb	Mālikī		It is used as a reference book in the <i>qawā'id</i> of the Mālikī School.

Title of the Book	Year First Published	Author(s)	School of Thought	Rationale for Selecting the Book
<i>Al-Muwāfaqāt fī Usūl al-Sharī'ah</i>	2014	Al-Shāṭibī	Mālikī	It is considered the best book on <i>maqāṣid al-Sharī'ah</i> (objectives of Islamic law) in the Mālikī School.
<i>Kitāb-al-Mabsūt</i>	1993	Al-Sarakhsī	Ḥanafī	Most of the details and legal reasoning in the Ḥanafī <i>fiqh</i> books are based on this book and the author is titled as 'Sham-al-Aaima' in Ḥanafī school.
<i>Al-Bahr al-Rā'iq</i>	1997	Ibn Nujaym	Ḥanafī	This book is a very detailed book of <i>fiqhi</i> issues and is used for references in issuing fatwas in Ḥanafī <i>fiqh</i> .
<i>Radd al-Muḥtār</i>	2003	Ibn 'Ābidīn	Ḥanafī	A number of commentaries have been written on it and the book is considered as one of the brilliant works on <i>qawā'id</i> in Ḥanafī <i>fiqh</i> .
<i>Majallat al-Ahkām al-'Adliyah</i>	2010	A manual of the Ottoman courts		This book was an attempt to codify <i>fiqh</i> that was written under the presidency of Ahmed Cevdet Paşa between 1869 and 1876. Principles and laws in this book are more compatible with principles of the modern law systems that have developed after a long period of evolution.

Source: Authors' own

ANALYSIS AND DISCUSSION

Based on the literature review of this study, different concepts related to usufruct are analysed according to the research questions of this study.

Analysis of Research Question 1

What are the views of the four major fiqh schools about the acceptability of usufruct (manfa'ah) as an asset (māl)?

The first research question is about the status of *manfa'ah* in relation to *māl* in the light of the *fiqh* schools. The views on the matter have been categorised into the Ḥanafī and non-Ḥanafī Schools for the sake of convenience. This analysis is based on the references from the famous books of scholars and jurists belonging to the relevant school:

1. As discussed in the literature, according to 'Allāmah Ibn Ḥajar and Al-Zarkashi from the Shāfi'ī School, *manfa'ah* is included in *māl* (Al-Haytamī, 1983; Al-Zarkashi, 1985, p. 222).
2. According to jurists from the Ḥanbalī School such as Al-Buhūtī (1993) and Ibn Qudāmah (1994), *manfa'ah* is considered *māl*.

3. The majority of jurists from the Mālikī School such as Al-Majaji (2001), 'Abd al-Wahhāb (2008) and Al-Shāṭibī (2014) have qualified *manfa'ah* as *māl*. On the other hand, Ibn 'Arafah from the same school does not consider *manfa'ah* as *māl* (Paracha, 2018).
4. Classical jurists from the Ḥanafī School like Al-Kāsānī (1993), Ibn 'Ābidīn (2003) and the *Majallah* (2010) do not consider *manfa'ah* as *māl* while a few contemporary scholars from this school classify *manfa'ah* as *māl* (Usmani, 2015).

A summary of the results is provided in **Table 2**.

Table 2: Views of the Different Schools of Thought on the Status of *Manfa'ah* in Relation to *Māl*

School of Thought	Views
Shāfi'ī	<i>Manfa'ah</i> is <i>māl</i>
Ḥanbalī	<i>Manfa'ah</i> is <i>māl</i>
Mālikī	Majority: <i>Manfa'ah</i> is <i>māl</i> Others: <i>Manfa'ah</i> is not <i>māl</i>
Ḥanafī	Classical jurists: <i>Manfa'ah</i> is not <i>māl</i> Contemporary jurists: <i>Manfa'ah</i> is <i>māl</i>

Source: Authors' own

Analysing the above views of the jurists from different *fiqh* schools, it seems that there is an equilibrium level of acceptability of usufruct as *māl*. Jurists of the Shāfi'ī and Ḥanbalī schools consider usufruct as *māl*. On the other hand, both opponents and proponents are found in the Mālikī and Ḥanafī schools regarding whether usufruct is *māl*.

However, if the underlying reasons for usufruct not to be classified as *māl* are explored, these are because of tangibility and the possibility of being stored. Now, if these underlying reasons are analysed further, they will exclude many assets from the category of *māl*. Nonetheless, it is observed that many assets that cannot be stored and that are intangible are still considered as *māl* and traded in the market. Examples include software, which is an intangible; electricity, which cannot be stored and is intangible; gases, which are intangible; and copyrights and trademarks, which are intangible and cannot be stored. These are considered valuable and are recognised as *māl* in custom (*'urf*) (Usmani, 2015).

In the opinion of the researchers, usufruct should be classified as *māl* based on *'urf*, which is one of the sources of Sharī'ah and which accepts it as *māl*.

Analysis of Research Question 2

What is the legal status of the ownership of usufruct in ijārah contracts?

If anything is proved to be *māl*, it leads to other associated issues such as ownership (*milkīyah*), inheritance (*irṭh*), testament (*waṣīyyah*), endowment (*waqf*) and charity (*zakaṭ*). The most dominant one, which needs to be addressed, is the status of ownership of usufruct in *ijārah* contracts, as it is considered the other side of the coin for *māl*. For the status of ownership, the researchers of the current study will analyse the following three aspects of ownership based on their discussion in the literature review of this study. These aspects are:

1. Type of ownership of *manfa'ah*
2. Nature of *manfa'ah*
3. Whether *manfa'ah* has beneficial or legal ownership

As far as the type of ownership is concerned, *milkīyah nāqisah*, which is deficient (incomplete) ownership, is found in *manfa'ah*. Siddiqui (2006) defines it as the ownership of the corpus (*'ayn*) with the exception of the *manfa'ah* or the ownership of the *manfa'ah* with the exception of the corpus. In *ijārah* contracts, the owner (lessor) of the *ijārah* asset has incomplete ownership over the asset similar to the user (lessee) of that asset. However, the latter possesses only use of the asset or its usufruct and thus has ownership of *manfa'ah* only.

Moreover, *manfa'ah* is of a temporary nature. According to Muslim jurists, if there is any stipulation in the sale contract to transfer its ownership, the contract will become invalid. Al-Zarqā (2004) has explained that ownership of *manfa'ah* is temporary, whereas ownership of an asset cannot be made temporary. Sale of an asset results in its complete ownership by the buyer. However, by analysing the views of jurists as described in the literature, it can be concluded that sale of *manfa'ah* should be permissible because it is the sale of *manfa'ah* in *ijārah* and not sale of the entire asset, although it is of temporary nature and for a stipulated time period. This stipulated period is binding upon the seller if the *manfa'ah* is transferred by an exchange contract as in the case of *ijārah*.

Furthermore, to assess the legal status of ownership of *manfa'ah*, the two types of ownership as discussed in the literature review need to be reiterated. One is the beneficial owner, to whom all the benefits of the asset go, and he is considered as the real owner of that asset (Brown, 2003); while another is the legal owner in whose name the asset is registered (Black, 1968), and he is considered the nominal owner of the asset.

In the opinion of the researchers of this study, based on analysis of the relevant concepts in the literature review and in the light of the views of Sharī'ah scholars, a person having ownership of *manfa'ah* should be allowed to become the legal owner of the asset because registration of name is not the requirement of Sharī'ah. It could be concluded from the statement of Imam Al-Nawawī (2001) that if the sale of an asset is valid through valid offer and acceptance, the buyer will receive legitimate ownership although the legal title is still in the name of someone else. The same has been endorsed by Ethica Institute of Islamic Finance in its handouts stating that the leased asset should be in the name of the lessor because he owns it. However, it can be registered in the name of the lessee if it is needed to meet regulatory requirements (Ethica, 2017).

CONCLUSION AND RECOMMENDATIONS

This study is an attempt to explore the question of *manfa'ah* in *ijārah* financing from a Sharī'ah perspective. It covered two aspects of *manfa'ah*. The first examined whether *manfa'ah* is *māl*. The second examined the legal status of ownership of *manfa'ah*.

For pursuing the above objectives, the researchers applied the qualitative research approach through content analysis by collecting secondary data from the books of *fiqh*. The key findings show that majority of the Sharī'ah jurists consider *manfa'ah* as *māl* like other tangible assets. In line with this, the Shāfi'ī and Ḥanbalī jurists consider usufruct as *māl*. A few of the

Sharī'ah scholars from the Mālikī and Ḥanafī Schools also qualify *manfa'ah* as *māl*. Based on the findings, the researchers concluded that *manfa'ah* should be considered as *māl* because the majority of the jurists consider it as *māl*, and it is the need of today's financial markets.

The study also shows that ownership is an inseparable aspect of *māl*. Analysing the status of ownership of *manfa'ah*, the findings show that ownership of just the *manfa'ah* is incomplete ownership which is temporary by nature. It also finds that the owner of *manfa'ah* can possess its legal ownership.

This study is deemed to help academicians to get deeper insights into the question of whether *manfa'ah* can be considered *māl*, its ownership and accounting treatment in the case of *ijārah*. Furthermore, the current study may assist researchers in analysing the new Islamic accounting standard (FAS-32) by comparing it with the old one (FAS-8), because in the old standard, there was no concept of *manfa'ah* as an asset. Analysis of this study is very significant because the application of the new standard would substantially impact the Islamic finance industry, particularly Islamic capital markets and Islamic banking. From the Islamic capital market's point of view, financial ratios are the basis for Islamic indices; therefore, the changes will have a greater impact on the screening criteria regarding the compliant and non-compliant businesses because treating usufruct as an asset, will entail an increased number of assets being shown on the balance sheet.

Limitations and Future Directions

Along with the significance, the current study still has some limitations that could become a new area of research in the future. This study was limited to the concepts of *māl* and ownership from the Sharī'ah perspective. It does not cover other relevant aspects such as Sharī'ah rulings regarding inheritance, zakat and endowment of usufructs. Moreover, this study used qualitative techniques and content analysis. However, quantitative or mixed techniques and thematic analysis can also be used in the future.

Finally, this study recommends that AAOIFI publish the supporting documents with the issuance of a new standard to assure academicians, researchers and professionals that Sharī'ah principles have not been violated in issuing new standards.

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DECLARATION

Credit Authorship Contribution Statement

- Rahmat Ullah: This research paper is extracted by Mr. Rahmat Ullah from his thesis of MS-IBF which was completed under the supervision of Dr. Irum Saba; draft write up of article.
- Irum Saba: Supervision and review of research article.
- Riaz Ahmad: Research methodology and write up.

Declaration of Competing Interest

The authors declare that they have no known competing financial interest or personal relationships that could have influenced the research work.

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None

Data Availability

No primary data have been used in this study.

Appendix

None

VIABILITY OF CASH WAQF-LINKED *ŞUKŪK* IN MALAYSIA

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ABSTRACT

Purpose — This research examines cash waqf-linked *şukūk* (CWLS) and ascertains its viability in Malaysia under the relevant legal and regulatory frameworks of waqf (Islamic endowment) and *şukūk* (Islamic investment securities). This is explored with a view to a possible implementation of CWLS in Malaysia by Islamic social and commercial finance institutions.

Design/Methodology/Approach — The research adopts a qualitative methodology and uses content analysis in synthesising relevant data to determine the viability and prospects of CWLS in Malaysia. Semi-structured expert interviews were conducted, and data obtained therefrom was analysed alongside published literature on CWLS to identify issues in the applicable waqf and *şukūk* legal and regulatory frameworks that pertain to CWLS viability.

Findings — The combination of cash waqf with *şukūk* is potentially an impactful financing mechanism for mobilising funds whereby charity is linked with productive and income-generating economic activities. CWLS facilitates the development of alternative social financing instruments that expedite social welfare and economic revival in the aftermath of the COVID-19 pandemic, as Indonesia demonstrates. However, Malaysia's waqf legal and regulatory framework have established a decentralised system of waqf administration, which may impede the efficacy of the structure and operations of CWLS in the country. Hence the research proposes a reform of the framework to enable the establishment of a more capable and viable CWLS structure for digital, retail and institutional investors.

Originality/Value — This research discovers hindrances to the prospect of CWLS in the legal, Shari'ah and regulatory dynamics of waqf and *şukūk* in Malaysia that previous studies overlooked. This research provides an in-depth understanding of challenges to CWLS' implementation in Malaysia with invaluable insight for regulators, policymakers, practitioners and researchers, thereby contributing to practical knowledge in the area.

Keywords — Cash waqf, Malaysia, Social finance, *Şukūk*, Viability, Waqf

Article Classification — Research paper

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INTRODUCTION

The COVID-19 pandemic negatively impacted the world economy. Since its advent, more focus has turned to social finance to revive the economy (Haji-Othman *et al.*, 2020; Rusydiana & Avedta, 2023; Siswantoro & Ikhwan, 2023). Cash waqf is considered one of the alternative financing methods available for boosting the economy and helping to develop social welfare programmes, especially during times of crises (Haji-Othman *et al.*, 2020). Cash waqf linked *ṣukūk* (CWLS) is an innovative product that is developed from the combination of the principles of waqf (Islamic endowment) and *ṣukūk* (Islamic investment securities), two prominent mechanisms of Islamic social finance and commercial finance, respectively. While waqf is an Islamic social finance instrument that has been practised throughout Islamic history, *ṣukūk* is an Islamic financial and commercial instrument that has been recently reinvented and has gained prominence only with the practice of contemporary Islamic finance from the late 1990s (Ahmed *et al.*, 2019; Abubakar *et al.*, 2023). Despite its relatively recent development, *ṣukūk* has been one of the most popular and remarkable Islamic finance instruments, having attracted increasing attention from institutional investors and regulators in the world today (Al-Ali, 2019).

It is notable that even though cash waqf practice has promoted waqf in Malaysia, there is enormous potential for waqf to be developed further through innovations that would advance the Islamic social finance sector in the country (Suhaimi *et al.*, 2014; Ali & Markom, 2020; Rusydiana & Ali, 2023). In view of this potential, innovative efforts continued to advance waqf alongside Islamic commercial finance—hence the case for CWLS (Abd Rahman & Awang, 2018). CWLS connects the practice of cash waqf for socio-economic purpose with *ṣukūk* for investment and commercial return (Fauziah *et al.*, 2021; Hosen *et al.*, 2022; Setyomurni & Nashirudin, 2023). The bottom line of the CWLS innovation is to further the inclusiveness and development of Islamic social finance within Islamic commercial finance (Tamanni *et al.*, 2022; Kamaluddin *et al.*, 2023).

The practice of CWLS has turned out well in neighbouring Indonesia since its launch in 2020 (Hosen *et al.*, 2022; Rusydiana *et al.*, 2023). Although CWLS is yet to be practised in Malaysia, the prospects for its development in the country are promising. In 2017, Waqaf An-Nur Corporation offered 850 million waqf shares worth RM85 million (USD19.86 million) to wholesale and retail markets under a social enterprise model known as the Larkin Sentral Property Bhd. Proceeds from the issuance of the shares were utilised to finance the upgrading of Larkin Sentral Terminal. Through the scheme, subscribers endowed their shares together with all their rights and entitlements to a trustee, and the dividends from the waqf shares were used to help small traders from the low-income and single-mother groups to pay reasonable rental rates for the market's shop lots (Securities Commission Malaysia, 2017). This scheme, coupled with the emergence of CWLS as championed by Indonesia, could inspire the launch of CWLS and advance its practice and utility in Malaysia by leveraging on the country's robust Islamic finance infrastructure and global renown as an Islamic finance hub (DinarStandard, 2022; Abd. Wahab *et al.*, 2023).

Hence, it is important to investigate and understand the operational parameters of the CWLS instrument in practice. This is to determine its prospects in Malaysia given the prevalence of waqf in the country and the significant role of *ṣukūk* and the Islamic capital market in the

economy (Zain & Sori, 2020; Aman *et al.*, 2022). Its prospects can only be determined by assessing the viability of the instrument and its structure in the light of relevant legal requirements, Sharī'ah parameters, and regulatory framework in the Malaysian jurisdiction and all possible issues related thereto. Likewise, expert viewpoints from specialists in waqf, *ṣukūk*, and Islamic social and commercial finance were sought to enable a proper understanding of the social and market impact of the innovation and determine the viability of CWLS in the Malaysian context. The term 'viability' used here refers to how CWLS would bring about desirable social and commercial outcomes for the benefit of all stakeholders involved, in both the short and long term.

This paper is organised as follows. Following the introduction, the next section reviews the literature and discusses CWLS and its components, the Sharī'ah compliance of CWLS, the permissibility of temporary cash waqf in Malaysia, and CWLS and its structure in Indonesia. The next section explains the methodology of the research. This is followed by a discussion on the introduction of CWLS in the context of Malaysia, identifying its potential challenges and proffering some relevant recommendations. The last section concludes the paper.

LITERATURE REVIEW

Components of Cash Waqf-Linked *Ṣukūk*

CWLS is a combination of two Islamic instruments which individually have diametrically opposite objectives (Fauziah *et al.*, 2021; Rusydiana *et al.*, 2023). It is the combination of *ṣukūk*, a for-profit Islamic capital market instrument, and waqf, which is a philanthropic endowment for social causes. With the combination of these two instruments, a new Islamic social finance instrument is created which mobilises capital for public and social causes. Before reviewing the structure of the CWLS, a preliminary note on the definition of the component instruments is considered here.

Ṣukūk has been defined by the Securities Commission Malaysia as certificates of equal value evidencing undivided ownership or investment in the assets using Sharī'ah principles and structures endorsed by the Shariah Advisory Council (SAC) (Securities Commission Malaysia, 2018). *Ṣukūk* is the Islamic alternative to financial bonds (Uluyol, 2023). To avoid interest while enabling investors to obtain a return on their investment, the issuance of *ṣukūk* requires an exchange of Sharī'ah-compliant underlying assets for a financial consideration through the application of various Sharī'ah contracts. In the case of CWLS, the waqf contract is applied.

Waqf is a sustainable, ongoing charitable endowment. The Government of Malaysia, on its official gateway portal, has defined and explained waqf as: '... a practice of surrendering owned property for the use and benefits of the public. Waqf is a religious act because the basic purpose of waqf is to be closer and gain the blessings of Allah by way of spending your wealth in the path to Allah. The waqf mechanism is a religious deed which has a strong religious foundation. Islamic law scholars believe that waqf has two fundamental objectives: (a) to contribute to the social development in a form of good deeds, (b) the waqf payer shall receive perpetual benefit in this world and the hereafter' (MyGovernment, 2021).

Waqf has been widely used throughout Islamic history to support and develop communities (Gaudiosi, 1988). A waqf endowment usually benefits the community by offering a service that is useful to society. The waqf asset (*mawqūf*) can be immovable or moveable. Cash

waqf is a moveable waqf wherein the waqf asset is money (Mohsin, 2009). Cash waqf can be direct or indirect. Direct cash waqf is where the cash donated is used by the state religious authorities, acting as the custodian or trustee (*nāzīr*), directly on a project or assets for the purposes of the beneficiaries (*mawqūf alaihim*). As custodians or trustees, the state religious authorities are tasked with the responsibility of taking care of the waqf properties. An indirect waqf, on the other hand, is where the cash donated as waqf is invested by the *nāzīr*, and the proceeds generated are earmarked for the use of the beneficiaries and to cover management fees (Fauziah *et al.*, 2021; Ascarya *et al.*, 2023).

Sharī‘ah Permissibility of Cash Waqf-Linked *Ṣukūk*

Regarding the Sharī‘ah permissibility of cash waqf, the 77th Muzakarah of the Fatwa Committee of the National Council for Islamic Religious Affairs Malaysia, which convened on 10–12 April 2007 in Kuala Terengganu, decided that cash waqf is permissible in Islam. Thus, the Committee resolved and proclaimed that ‘waqf in the form of cash is permissible in Islam’ (Centre for Management of Waqf, Zakat and Endowment, 2022). It may be noted that the majority of classical scholars considered waqf to be a permanent or perpetual endowment, whether in the form of immovable property or cash (Mohammad *et al.*, 2006). A minority, notably the Mālikī scholars, permitted temporary waqf whereby the original capital is returned to donors (Cizacka, 2016). Regarding this issue, Yayasan Waqaf Malaysia (Malaysian Waqf Foundation), a national agency, introduced and operates a cash waqf based on the classical structure which is permanent or perpetual in nature (Mokhtar *et al.*, 2015; Yayasan Waqaf Malaysia, 2021). Despite this initiative, the states in Malaysia could not uniformly adopt the same structure in their respective jurisdictions due to legal and regulatory peculiarities of waqf governance among them. It is noteworthy that in the commercial practice the structure of *ṣukūk* is mainly temporary. However, as will be examined subsequently, in Indonesia’s pioneer CWLS structure, donors were allowed to donate their cash waqf on a permanent basis to be managed by the waqf body, or on a temporary basis with the cash being returned to the donor upon maturity of the *ṣukūk* (Hosen *et al.*, 2022).

At the international level, temporary waqf has been recognised by global Sharī‘ah bodies and standard-setting institutions under the following contemporary resolutions: (a) the International Islamic Fiqh Academy’s Resolution No. 181 (7/19), at its 19th meeting in 2009, held in the United Arab Emirates (International Islamic Fiqh Academy, 2021); (b) AAOIFI Shariah Standard No. 33, Clause 3/1/4 (AAOIFI, 2022).

At the national level, waqf in Malaysia legally comes under the jurisdictional purview of state authorities as designated in List II or the State List under the Ninth Schedule of the Federal Constitution of Malaysia. Therefore, the 13 states of Malaysia and the Federal Territories will govern their waqf institutions independently under their respective enactments, and each one will have its own ruling on the permissibility of temporary waqf. Out of the 13 states and Federal Territories, seven have passed specific waqf regulations—notably, Sabah, Perak, Johor, Selangor, Negeri Sembilan, Terengganu and Malacca—whereas the State Assemblies of the remaining six states and the Federal Territories have enacted provisions on waqf in their respective general administrative regulations for Islamic matters. For instance:

- section 17 of the Kaedah-kaedah Waqf 1983 of the State of Johor recognises both permanent and temporary waqf,
- Fatwa 1/2014, 4, of Selangor Fatwa Committee,
- section 18 Wakaf (Terengganu) Enactment 2016, and
- section 2 Administration of Islamic Law (Federal Territories) Act 1993.

All these provisions have recognised temporary waqf (Rashid, 2018; Sulaiman *et al.*, 2019; Ambrosea & Peredaryenko, 2022), and this research accordingly opines that cash waqf, whether permanent or temporary, is generally acceptable and permissible in Malaysia. It is noteworthy that temporary waqf is an important instrument for social impact whose potential has been recommended for further exploration by the World Bank and contemporary Islamic finance research institutions of high repute (The World Bank Group *et al.*, 2019).

Cash Waqf-Linked *Şukūk*: The Indonesian Example

Indonesia pioneered the introduction of CWLS in 2020 to support its National Waqf Movement, which aims to assist in the development of social investment through productive waqf in the country (Hafandi & Handayati, 2021). CWLS was used to meet the Indonesian government's short-term investment needs, especially the construction of social facilities/infrastructure and other social causes beneficial to the public (Fad, 2021).

Under the Indonesian CWLS structure and programme, several parties and/or stakeholders were involved, namely:

- (i) the *wāqif* as the donor who donated the funds, either temporarily or permanently;
- (ii) the Ministry of Finance as the *şukūk* issuer;
- (iii) Badan Wakaf Indonesia (BWI) (Indonesian Waqf Board) as the waqf supervisor and *nāzir*;
- (iv) LKS PWU [Lembaga Keuangan Syariah Penerima Wakaf Uang] (Islamic financial institutions receiving cash waqf) and non-LKS PWU (non-Islamic financial institutions) that collected the cash waqf from the donors as the *nāzir*'s fundraising partners;
- (v) BWI administering partners who manage the waqf assets financed from the *şukūk* and coupon payments; and
- (vi) other BWI distributing partners who distribute the *şukūk* coupons to beneficiaries or to social causes regularly.

At the very outset, an MOU was signed between BWI, Bank Indonesia, Ministry of Finance, and the Ministry of Religious Affairs with the intention of commitment and cooperation among the stakeholders (Bank Indonesia, 2021, p. 27). **Table 1** states the role of the various stakeholders.

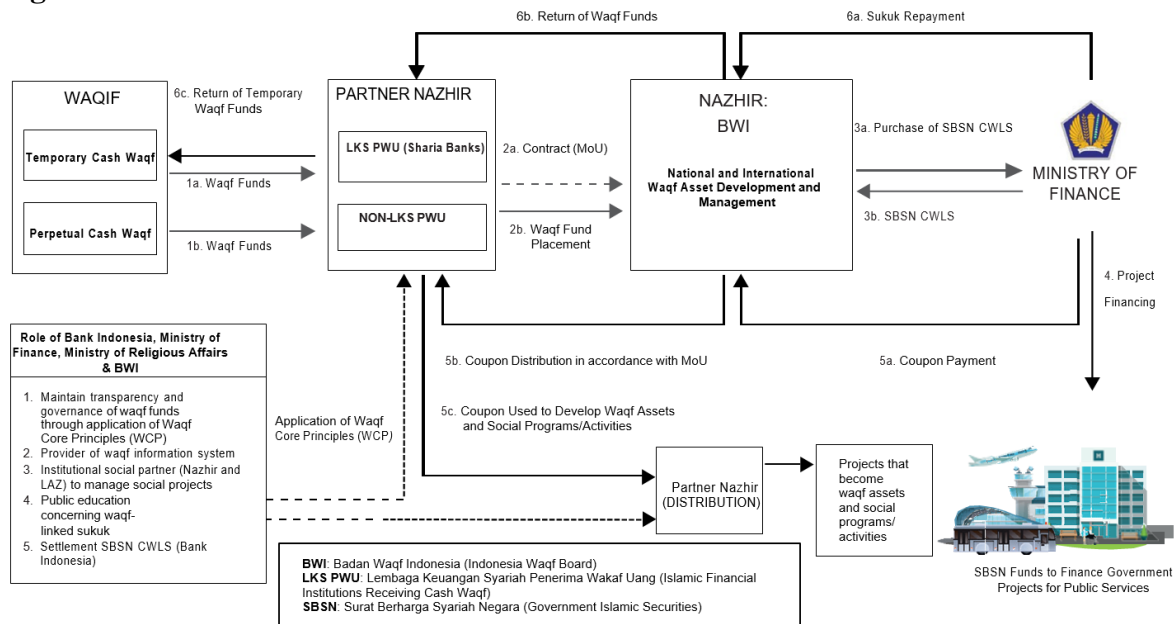
Table 1: Role of Different Authorities/Institution in CWLS Implementation

Institution	Role
BWI	Single buyer Sukuk Wakaf Indonesia (SWI) Transaction operationalisation with Ministry of Finance and LKS-PWU Design of CWLS business model/instrument Determine the <i>nāẓir</i> 's partners and the allocation of the CWLS returns Formulated CWLS marketing programme
Bank Indonesia	Recording SWI in Bank Indonesia–Scripless Securities Settlement System (BISSSS) Design of CWLS business model/instrument Facilitator of product marketing and training of trainers/communication process with Indonesian Council of Ulama (MUI) concerning the Sharī'ah perspective of the first CWLS issue
Ministry of Finance	Issuer of SWI Design of CWLS business model/instrument Setting the corpus benefit of waqf Facilitator of product marketing and training of trainers
Islamic financial Institutions	Settlement of <i>wāqif</i> /investor transactions Facilitation of investment in CWLS CWLS product marketing

Source: Bank Indonesia (2021)

The roles of each stakeholder, as depicted above, clearly shows how the various institutions cooperated for the successful deployment of the CWLS for social causes. The structure of CWLS is shown below in **Figure 1**.

Figure 1: Structure of CWLS



Source: Bank Indonesia (2021); Badan Wakaf Indonesia (2021)

Based on the above structure, the following is the flow of events:

- 1a & b: Waqf funds are donated by the *wāqif*, who may choose the temporary or permanent cash waqf option. LKS PWU (Islamic financial institutions) and non-LKS PWU (non-Islamic financial institutions) are the *nāzīr*'s fundraising partners that collect the cash waqf from the *wāqifs*.
- 2a & b: The *nāzīr*'s fundraising partners then enter into an MOU with the *nāzīr* (the Indonesian Waqf Board (BWI)) and place the funds with BWI.
- 3a & b: BWI buys the *şukūk* or Government Islamic Securities (SBSN) from the Ministry of Finance with a private placement mechanism; *şukūk* ownership documents are given to BWI.
- 4: The funds received by the government from CWLS issuances are subsequently used to fund government projects for public services. At this stage, in its capacity as SBSN administrator, Bank Indonesia records the ownership and engages in SBSN clearing and settlement.
- 5a b & c: The government pays the return to BWI in the form of a discount or coupon, which is distributed to the *nāzīr*'s distributing partners to fund social projects or activities. The initial discount received at the beginning of the investment is used to develop the waqf asset, such as a religious school, health clinic and social infrastructure. The discount received from the first CWLS series was used for medical equipment and building of an eye hospital in Serang, Banten (Bank Indonesia, 2021). The coupon received from the first CWLS series was used to meet the operational expenses of the eye hospital in Serang, Banten. The coupon received periodically was used to implement non-physical social programmes, such as those targeting orphans and the poor, free healthcare, economic empowerment for those at the bottom of the pyramid, and other social programmes. Investment in CWLS generates competitive returns because BWI is tax-exempt (Bank Indonesia, 2021; Badan Wakaf Indonesia, 2021).
- 6a b & c: At maturity, the Ministry of finance repays the cash to BWI, which refunds the temporary cash waqf to the *nāzīr* (via designated partners) who will return it to the donors who opted for temporary waqf, or it is further managed by BWI in the case of a permanent cash waqf (Bank Indonesia, 2021; Badan Wakaf Indonesia, 2021).

In this CWLS structure, the donors could choose to get a financial return on their investments, or they could forgo the principal if they chose to make the cash waqf permanent. The objective of the donors was largely to earn spiritual rewards. The cash donated was used to fund the *şukūk* projects designated by the Indonesian government for the improvement of public infrastructure and other amenities, and the proceeds were used in the development of waqf assets for the benefit of beneficiaries (Hosen *et al.*, 2022; Maulina, 2022).

These are among the social and economic benefits that Indonesia has derived from the CWLS, whereby the donors and beneficiaries alike obtained both monetary and spiritual benefits from the CWLS programme. It is worth noting that a centralised waqf administration system is crucial in establishing the harmony and cooperation needed among all the stakeholders of the CWLS and was thus a key element of making the initiative successful (Maulina, 2022).

RESEARCH METHODOLOGY

The objective of this research is to investigate issues pertaining to CWLS and its viability in Malaysia. This is an exploratory legal research and uses a qualitative methodology with the doctrinal approach in appraising issues relevant to the subject being investigated. The doctrinal approach is the most common approach employed in undertaking law research; it focusses on the letter of the law and the resultant action or conducts from the dictate of the law in order to provide tailor-made solutions to practical problems (Cownie & Bradney, 2013). This involves analysing legal principles and their implications on the conduct of transactions in accordance with the law to provide a ready guide for all stakeholders to understand the law vis-à-vis particular affairs of the people (Pradeep, 2019). Also, semi-structured expert interviews were conducted whereby practical oriented data from subject experts were obtained for the research (Hutchinson & Duncan, 2012). Thus, alongside the doctrinal approach, content analyses were performed as an essential component of the approach (Mayer, 2015). Through these processes—provisions of relevant Malaysian laws, the data from the interviews, and published literature relevant to CWLS—the data were analysed and construed (Kyngas, 2020). This enabled a proper identification and understanding of the issues and constraints that arise in the implementation of CWLS and, accordingly, an assessment of the viability of its application in Malaysia.

CASH WAQF-LINKED *ŞUKŪK* FOR MALAYSIA

The introduction of CWLS in Malaysia using the structure implemented by Indonesia as a model would bring similar social and economic benefits for Malaysia. The involvement of Islamic financial institutions in the structure of CWLS would, to a large extent, champion financial engineering to further the development, expansion and inclusivity of Islamic social finance in Islamic commercial finance (Tamanni *et al.*, 2022). In this regard, CWLS has a promising prospect in Malaysia by leveraging on the country's well-established Islamic finance infrastructure and huge *şukūk* potential (Adeyemi *et al.*, 2016; Fauziah *et al.*, 2021). This would enable connecting the practice of cash waqf for socio-economic goals with *şukūk*, an income-generating investment, for commercial returns (Tamanni *et al.*, 2022; Hosen *et al.*, 2022). The CWLS would build a supportive machinery for socio-economic development by unlocking the potentials of waqf further through cash waqf while leveraging on *şukūk* (Musari, 2019). Moreover, CWLS would motivate charity and stimulate investment among people while offering opportunities for commercial return and socio-economic impact (Cahyono & Hidayat, 2022). CWLS would also revitalise underutilised waqf assets and reactivate them to secure their socio-economic potentials for Malaysia (Azizan *et al.*, 2021). It would, thus, further promote waqf and enable waqf institutions to expand the Islamic social finance sector in Malaysia (Suhaimi *et al.*, 2014; Ali & Markom, 2020).

Challenges in Introducing CWLS in Malaysia

In furtherance to the analysis made on results drawn from the relevant published literature, this section examines possible challenges to the implementation of CWLS in Malaysia. It also comes up with further findings based on the analysis of primary data collected from the interviews with experts in the fields of waqf and *şukūk*. The challenges are examined from a number of perspectives, as follows:

Legal and Regulatory Framework

In the previous section, it was mentioned that the Malaysian waqf framework falls within the jurisdictional purview of the states. Thus, under article 74(2) of List II of the Federal Constitution, there are currently 14 separate pieces of waqf legislation (13 states and one federal territory) governing waqf matters. This is a peculiar legal and regulatory framework for waqf which establishes an exclusively decentralised waqf governance system that will potentially hinder the prospect of CWLS. The issue that arises here is consistency in applying the law with regard to waqf matters. This establishes the fact that the current legal and regulatory frameworks do not provide for a uniformly comprehensive legislation in regulating and administering all waqf matters as previous studies attested. On this note, it is important to highlight the fact that there is no unanimous legal definition of what amounts to cash waqf in Malaysia. Out of the 13 Malaysian states and Federal Territories, only two, the states of Selangor (section 2 Selangor Wakaf Enactment, 2015) and Terengganu (section 2 Terengganu Wakaf Enactment, 2016), have defined cash waqf. Regardless, since cash waqf is permissible in Malaysia, states that do not specifically define cash waqf are also able to implement cash waqf programmes (Abd Rahman & Awang, 2018).

Given the different state laws and considering their application in cash waqf matters, there will inevitably be different interpretations and understandings of the subject matter (Ngadimon, 2015; Rahman & Amanullah, 2017; Jalil, 2020). Therefore, it is essential to have a clear definition of cash waqf within the various pieces of legislation for an efficacious implementation throughout Malaysia. The lack of comprehensive legislation in regulating and administering waqf matters could be a possible impediment to the effective introduction of CWLS in Malaysia. Effective construction of CWLS ecosystem should start with a clear definition of what cash waqfs are. Clarification of this point would facilitate the consistent application of waqf regulation to all regulated entities and other stakeholders throughout Malaysia.

Waqf Administration and Management System

As earlier mentioned, the administration and management of waqf affairs in Malaysia lies with the states (Article 74(2), List II, Ninth Schedule, Federal Constitution of Malaysia). This system has established a decentralised regulatory architecture that puts the waqf administration and governance under the State Islamic Religious Councils (SIRCs). In order to unify waqf administration and develop waqf institutions, the Malaysian government established Jabatan Wakaf, Zakat dan Haji [Department of Awqaf, Zakat and Hajj]—officially abbreviated JAWHAR—in 2004 (Department of Awqaf, Zakat and Hajj, n.d.). However, JAWHAR was given limited or no power in administering or managing waqf assets; thus, it cannot address issues arising from the decentralised waqf governance and administration system (Ali & Markom, 2020; Ismail *et al.*, 2023).

Decentralised Waqf Governance and Administration System

The decentralised administration and management of waqf has resulted in slow and fragmented development of cash waqf as a precursor to CWLS in the country. In reference to this system of waqf administration and management, previous studies have established that the SIRCs have not been able to effectively manage the waqf assets due to several factors, including inefficient

administration and poor management know-how, insufficient funds and lack of knowledge about the effect of the applicable laws (Kamaruddin *et al.*, 2018; Khamis & Salleh, 2018; Ali & Markom, 2020). Furthermore, JAWHAR as the national agency only plays the role of planning coordination, without any authority to administer and manage waqf assets, a power that lies solely in the SIRC's (Kamaruddin *et al.*, 2018). Previous studies have also established the fact that there is insufficient certified and/or experienced human capital in JAWHAR, even in cash waqf matters (Khamis & Salleh, 2018). These comprise impediments to upscaling, expanding and advancing the general waqf operations in Malaysia in this regard.

In support of this finding and buttressing the point being made here, Dr Mohamed Eskander of Hamad Bin Khalifa University, when interviewed online on 17 October 2022, stated:

...the only problem is that **we didn't scale it out at a much higher level**...Unfortunately, **we are trying to do Islamic social finance through a central system**...and we do not want to let go of the current system. (Emphasis added)

The reference to a 'central system' here is with respect to the power that is given solely to the SIRC as obtainable in each state under the current system in Malaysia. As there is no unified system for the whole country, the point here is that, in introducing CWLS, the management will lie in the 14 different SIRC's, and it would be hard to scale up under this decentralised system as there is no consistency in the applicable state laws.

When asked about the challenges of cash waqf, another expert, Dr Ayaz from CIMB Islamic Malaysia, interviewed online on 4 October 2022, stated that the main challenge is the management and administration of waqf. In his words:

... there are a lot of challenges that I think you'll be quite familiar with, i.e., **the challenges in the waqf ecosystem as well as** the constitutional challenges that the SIRC's are to see to its administration, **and that everything is under their purview**. (Emphasis added)

Dr Ayaz further highlighted the difficulty of the waqf institution collaborating with other counterparties to boost the utilisation of waqf funds:

...the difficulty is how do we get involved in it? How do we [Islamic banks] become part of the waqf ecosystem when **the ecosystem itself is not quite developed ... and the banking system here is quite sophisticated**? I think there are a lot of people who would like to get involved, but **the barrier is the waqf institution itself; it is not ready to accept very sophisticated institutions** such as banks [for collaboration]. (Emphasis added)

Thus, based on the two experts' viewpoint above, it can be said that the current system of a decentralised administration and management of waqf would be a challenge to introducing CWLS because the waqf ecosystem is not yet ready to upscale and collaborate with another platform for the utilisation of waqf funds which largely remain idle for a long time with the SIRC's.

SIRC as Mutawallī (Manager of the Waqf Funds and Assets)

Under the current waqf legal framework, an SIRC is not only the *nāzīr* (sole trustee) for the waqf funds and assets but also acts as *mutawallī* (manager) for each waqf (Abdullah, 2010). For better management in this regard, the Selangor SIRC established a subsidiary institution, the Perbadanan Wakaf Selangor (Selangor State Islamic Religious Council, n.d.), similar to one established by the Federal Territories Islamic Religious Council, the Wakaf Centre (Islamic Religious Council of Federal Territory, n.d.). Other corporations and selected non-profit organisations are appointed as *mutawallī* for this purpose as well (Abd Mutalib & Maamor, 2016; Yunus *et al.*, 2023).

Another expert, Mr. Ahmad Hafiz Abdul Aziz, from World Bank Global Knowledge, Malaysia, in a face-to-face interview conducted on 4 October 2022, compared the *mutawallī*'s position in Indonesia and Malaysia to underscore the need for a competent *mutawallī* in waqf. In his words:

The development of Islamic social finance in Malaysia is not as far as it is in Indonesia and Singapore. Here, we have 13 states, which means 13 different regulators. If you compare with Indonesia, everything is reported to the President. So, they have, in terms of standardisation, only one authority. For example, if we look at the concept of *mutawallī*, ... **in Indonesia, according to the law, individual people can be *mutawallī*, can collect and distribute, but you cannot find that here in Malaysia. Here, banks are allowed to collect cash waqf, but distribution is subject to the *bayt ul-māl*. So, the *bayt ul-māl* will check and determine when to carry out the distribution.** (Emphasis added)

Cognisance of this fact has led the SIRCS to appoint several *mutawallīs* to handle the relevant role. However, the focus in doing so has been more on getting easier access to the public to donate funds as waqfs and evidently boost the waqf collection (Awqaf Holdings Berhad, 2019). In terms of distribution, such duty goes back to the *bayt ul-māl*, which is an entity under the SIRC (Mahadi *et al.*, 2018). Therefore, even though the rate of cash waqf collection is high, there is still the issue of inefficient distribution. Thus, this will be another challenging step to go through when CWLS is introduced in Malaysia.

Waqf Literacy and Awareness

Previous studies have established a general lack of awareness and of proper understanding of waqf in Malaysia (Marzuki *et al.*, 2012; Osman, 2014; Puad *et al.*, 2014; Adeyemi *et al.*, 2016). The earlier findings in this regard came mostly from conceptual and theoretical studies. However, findings by more recent empirical studies have supported this conclusion and the fact that it continues to prevail (Jalil, 2020; Laallam *et al.*, 2020; Mohd Thas Thaker *et al.*, 2020; Khan *et al.*, 2022; Laila *et al.*, 2022; Ab Rahman *et al.*, 2023). It is vital to note that such low literacy and awareness in the community on cash waqf reduces people's motivation to participate in waqf (Sasongko *et al.*, 2021), hence making cash waqf an unfavourable medium for charity.

In view of the foregoing, Dr Ayaz from CIMB Islamic Malaysia further clarified in his interview the challenges of introducing CWLS to the Malaysian public. He opined that the issue of the lack of awareness and understanding contributes to the low culture of donation under the waqf concept, as follows:

Whether the individuals, the investors are familiar with it; whether they accept it because there are some commercial considerations are issues that come into the picture....If we were to introduce it in a different way, **whether through another platform or through other means for them to contribute, the issue still stands, because the waqf culture is still very small.** So, when we are introducing something new, it is not merely about introducing a platform. It is actually about the need to address **the issue that the culture for it is not there in the first place.** (Emphasis added)

Another point was raised by Mr. Ahmad Hafiz when he made a comparison with Indonesia on the need to better promote the waqf culture in Malaysia. He said:

So, when you have more players, with NGOs as in Indonesia, for instance, they will indirectly create awareness, bring creativity and capacity building. But here in Malaysia, if you are to do the same, the Majlis Agama [SIRCs] would be asking questions, because you know **the power to do that still belongs to the state, so one would not have that much freedom and flexibility.** (Emphasis added)

Thus, the Malaysian waqf management and administration system concentrates the requisite power only in the SIRCs which, for the reasons identified, have so far not been able to effectively wield the power in creating awareness and cultivating the waqf culture in the country. Consequently, it is expected that there will be low market penetration of the CWLS product in Malaysia. Lack of understanding of waqf, specifically cash waqf, would be a significant challenge in introducing CWLS in Malaysia.

RECOMMENDATIONS

It is evident from the foregoing discussions and analyses that cash waqf is a very significant component of CWLS. While cash waqf has been in practice, CWLS is a product yet to be introduced in Malaysia. Regardless, it is established that when it is introduced, it would have positive prospects in the country. However, for the viability of the product, reforms are desired in Malaysia's waqf legal and regulatory framework.

It has been noted from the experience of issuing CWLS in Indonesia that the country's centralised waqf administration system has significantly influenced the success of the product. Therefore, the reform is to ensure consistency and uniformity in the 13 states' and Federal Territory's waqf laws that would enable a centralised CWLS governance and administration. This reform should be made to transcend and accordingly transform the system of waqf administration in the country in favour of CWLS. In this regard, it is recommended that the reform should enable JAWHAR, as the national waqf parastatal organisation, in collaboration with the Malaysian Ministry of Finance, to lead the initiative to launch a national CWLS programme via a centralised and uniform legal and regulatory framework. An amendment needs to be made in the JAWHAR establishment law to enable it to play a unified role to plan, coordinate, administer and manage waqf.

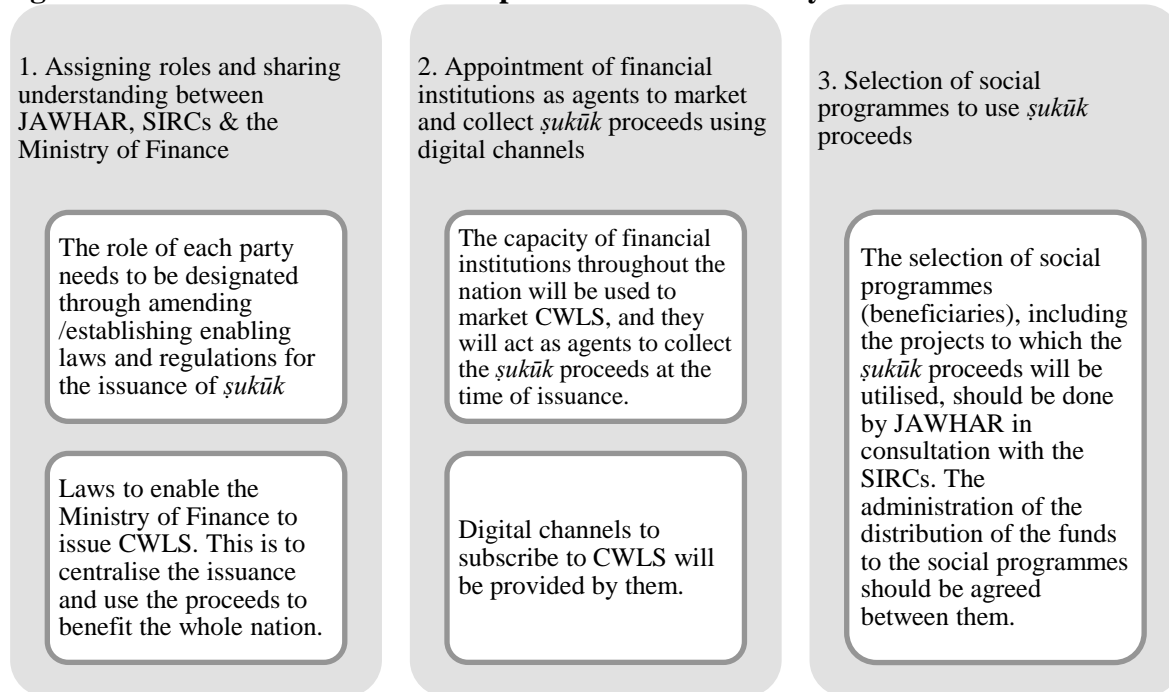
Also, a corresponding amendment needs be made in current state waqf laws and Islamic religious regulations to address the differences in state laws on the administration of waqf and enabling SIRCs to partner and collaborate with JAWHAR and the Ministry of Finance in matters of waqf within their respective jurisdictions. This would enable SIRCs to delegate waqf assets

securitisation, digitisation and issuance of *ṣukūk* therefrom to JAWHAR and the Ministry of finance. The reform in this regard should also enable collaboration with Islamic and conventional financial institutions to market CWLS and collect the proceeds therefrom in Malaysia. This would empower JAWHAR to maximally generate and utilise waqf assets under respective SIRC’s jurisdictions across Malaysia. Thus, while individual states in the country can issue CWLS in their domains (decentralised), the centralised approach would enable a more inclusive and uniform utilisation of CWLS proceeds for key projects across the country. This is important for the development and viability of CWLS.

Additionally, given the Malaysia’s success in its issuance of Sukuk Prihatin during the COVID-19 pandemic (Ministry of Finance Malaysia, 2022), the proposed amendment should facilitate the development and issuance of digital CWLS for target impact so that both institutional and retail investors can invest therein. In Sukuk Prihatin, which was issued as part of the government’s recovery efforts following COVID-19, 95 Sukuk Prihatin holders opted to waive their principal subscription amount. The Government channelled the entire contribution, totalling RM2,599,400, to Akaun Amanah Bencana, which supported, among others, the repair of damaged infrastructure and public facilities as well as the provision of financial relief for victims of natural disasters (Ministry of Finance Malaysia, 2022).

The CWLS should be handled by the financial institutions onboard to market the issue throughout Malaysia. Also, the CWLS should provide its holders with the option to donate their principal and/or profit to a social cause. This will encourage the *ṣukūk* holders to do good for a social cause. Furthermore, the CWLS should be tax exempted as an incentive for those who invest in them. **Figure 2** shows the salient features of the proposed CWLS in Malaysia.

Figure 2: Salient Features of the Proposed CWLS for Malaysia



Source: Authors’ own

CONCLUSION

In conclusion, the analysis and discussion in this research have made it clear that CWLS has significant prospects in Malaysia but that the full potential will be difficult to realise in the current environment. This is due to challenges and issues arising mainly from the legal and regulatory inhibitions that concentrate waqf management and administration in states' authorities in the country. The research accordingly proposes tailor-made reforms in the Malaysian waqf legal and regulatory frameworks as well as the waqf governance system. This research's analyses and the reforms it proposes will pave the way towards a better understanding of the issues that the introduction of CWLS in Malaysia will bring about and more thoughts on how to address them, especially by emulating the practice (in terms of structure and implementation) of CWLS in Indonesia. The research argues that the social and economic benefits that Malaysia stands to gain from CWLS would make the proposed changes worthwhile. It is thus anticipated that the findings and recommendations of this research will assist regulators and policymakers in Malaysia to take requisite actions and consider issuing CWLS for socio-economic empowerment/development of the country.

LIST OF INTERVIEWEES

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- Dr Ayaz Mohamed Ismail, CIMB Islamic, Malaysia, *Online Interview*, Tuesday 4 October 2022.
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DECLARATION

Credit Authorship Contribution Statement

- Sherin Kunhibava wrote on the Sharī'ah permissibility and CWLS explanation in Indonesia.
- Aishath Muneeza wrote about the challenges in introducing CWLS in Malaysia.
- Zakariya Mustapha wrote the introduction, literature review and conclusion.
- Maryam Khalid wrote the recommendations.
- Thong Ming Sen wrote part of the literature review.
- All the authors were involved in the conduct of the interviews for the research.

Declaration of Competing Interest

The authors declare that they have no known competing financial interest or personal relationships that could have influenced the research work.

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Data Availability

The interview data and all other data are kept on the authors' google drive and are available on request from the authors.

Appendix

None

LEGAL CHALLENGES IN ESTABLISHING THE ISLAMIC CAPITAL MARKET IN UZBEKISTAN

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ABSTRACT

Purpose — This study aims to examine the possibility of introducing the Islamic capital market (ICM) in Uzbekistan and to investigate the legal challenges inhibiting the process. Consequently, important policy recommendations are proposed.

Design/Methodology/Approach — It employed library research, scrutinised legal documents, and conducted interviews related to the ICM in Uzbekistan. The analysis involved both primary data from a series of interviews, and secondary data from available literature and the country's financial legislation.

Findings — The research findings show that despite the existence of a large demand for ICM products in Uzbekistan, its capital market is not ready for the introduction of the industry products at the current stage. Thus, several legal reforms and changes to current financial regulations are necessary for the industry to be introduced and flourish in the country.

Originality/Value — Unlike some previous studies, this article specifically examines the legal barriers faced by the ICM industry in Uzbekistan, shows some of its implications, and provides relevant policy recommendations.

Practical Implications — Following the recommendations of this paper, the government of Uzbekistan can make necessary legal reforms that would increase investment flow into the economy from both its own people and foreign investors.

Research Limitations/Implications — Due to the confined scope of the study, its findings are limited to legal issues relating to the ICM in Uzbekistan. Hence, the findings of the paper cannot be generalised to other countries or other sectors of the Islamic finance industry in the country.

Keywords — Financial regulation, Islamic capital market (ICM), Islamic finance products, Legal issues, Uzbekistan

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INTRODUCTION

Uzbekistan is a Central Asian country that is home to over 36 million people (Statistics Agency of Uzbekistan, 2023). The population of the country is predominantly Muslim, with estimates ranging from 85 to 96 per cent, making it the largest Muslim nation in the Commonwealth of Independent States (CIS) (United States Department of State, 2021). In spite of its large Muslim population and over 30 years of independence, Uzbekistan only recently began introducing Islamic financial services for its people. This delay in introducing Islamic finance is attributed to the previous leadership's cautious approach to reforms, a vestige of its Soviet legacy (Ahunov, 2018).

However, when the new government took power in 2016, reforms were initiated across various sectors, including financial services. In May 2018, a proposal for a Presidential Decree on 'Measures for Organizing Islamic Banking and Finance Infrastructure in the Republic of Uzbekistan' was posted on the government portal for public discussion (Kun.uz, 2018). However, the proposal was removed after a few weeks without a new proposal or a decree based on the original one being passed, indicating the government's hesitancy about fully adopting an Islamic financial system.

Similar initiatives ensued in the following years, with top government officials expressing the political will to establish a legal framework for introducing Islamic financial services. The last and most promising of those is the Presidential decree on measures to implement the tasks set in the open dialogue with entrepreneurs in September 2023. One of the tasks was to develop a proposal for an Islamic finance law by December 2023 (Republic of Uzbekistan, 2023).

However, some facts indicate the presence of significant unsatisfied demand for Islamic financial services in Uzbekistan and, in turn, hint at great potential for developing the industry in the country. A Findex survey conducted in Uzbekistan in 2014 showed that one of the two main reasons for individuals not taking loans from conventional banks was their religious beliefs. Furthermore, a 2020 survey conducted in collaboration with the United Nations Development Program (UNDP) revealed that 75 per cent of individuals and 61 per cent of businesses were willing to use services provided by Islamic financial institutions (IFIs) if they were offered in Uzbekistan (Ahunov, 2018; Imamnazarov, 2020).

One area of Islamic finance where Uzbekistan could start is the offering of Islamic capital market (ICM) products. Some of its Central Asian neighbours and other members of the CIS have experimented with providing a legal basis for the issuance of Islamic investment securities such as *shukūk* and Islamic mortgage certificates, as well as launching Islamic investment indexes (Anadolu Agency, 2021; Nagimova, 2021). It is plausible that Uzbekistan could adopt similar practices to promote the Islamic finance industry within the country. Therefore, the current study aims to analyse the feasibility of implementing an ICM in Uzbekistan, identify barriers to its introduction, and provide policy recommendations to overcome these obstacles. The following three main research questions are considered:

1. What is the level of awareness of the ICM and demand for its products in Uzbekistan?
2. What are the legal barriers preventing the introduction and development of the ICM in Uzbekistan?

3. How can the experience of the neighbouring countries and other countries with developed ICMs benefit Uzbekistan?

The remainder of the paper proceeds as follows. The next section provides an overview of the development of Islamic finance and capital markets in Central Asia and Uzbekistan. Then, the research methodology and data used in the analysis are discussed. The following section analyses the demand for the ICM based on the results of interviews with experts and assesses the compatibility of capital market regulations in Uzbekistan with the requirements of the ICM while also benchmarking them with ICM regulations of other countries. Finally, the last section summarises the paper and provides key policy recommendations.

LITERATURE REVIEW

Development of Islamic Finance and Capital Markets in Central Asia and Uzbekistan

The ICM has been introduced and is developing in many Muslim-majority and minority countries across Asia, Europe, Africa and North America. Even countries with a Muslim-minority population, such as the United States, the United Kingdom and Luxembourg, have thriving ICMs with well-known Islamic funds and Islamic indexes such as the Dow Jones Islamic and FTSE Shariah indexes. However, some of Central Asia's Muslim-majority countries such as Uzbekistan are lagging in ICM development.

Islamic banking and finance made inroads into Central Asia when those countries gained independence following the collapse of the Soviet Union in 1991. In the early years of their independence, the Central Asian countries joined the Islamic Development Bank (IsDB)—the largest and most specialised IFI under the Organisation of Islamic Cooperation (OIC)—which provided them with financing and assistance for the development of Islamic finance infrastructure. In 1993, Kyrgyzstan was the first of the Central Asian countries to join the IsDB, and the other three Central Asian countries, namely Kazakhstan, Tajikistan and Turkmenistan, followed its lead by joining the organisation between 1994 and 1996. Uzbekistan joined the IsDB in 2003, making it the last Central Asian country to do so. The Islamic finance industry started developing more rapidly in the region following the establishment of the IsDB regional office in 1997 in Almaty, Kazakhstan (Malik, 2015).

Subsequently, new legislation was passed and changes to financial regulations were adopted by the regional governments to accommodate the smooth operation of IFIs such as Islamic banks, *takāful* (Islamic insurance) and leasing companies and to permit the issuance of Islamic investment securities such as *shukūk* (Malik, 2015). Those changes to accommodate the Islamic finance industry were most visible in Kazakhstan and Kyrgyzstan, and partially in Tajikistan. The remaining two Central Asian countries, Uzbekistan and Turkmenistan, were relatively slow in introducing elements of the Islamic finance industry. Nevertheless, all five of the newly independent states of Central Asia were benefiting from financial assistance provided by the IsDB and its group member organisations.

Uzbekistan has received financing of around USD2.5 billion from the IsDB since 2005. The Shari'ah-compliant financing received from the organization was channelled to the country's economy through some commercial bank credit lines provided to large enterprises or

was provided directly to some government projects. Most of the financing was directed to educational, health, agricultural, utilities and construction sectors of Uzbekistan's economy (Khasanov, 2019).

Nonetheless, no significant progress in Islamic finance development was witnessed in the country. Just one private Islamic leasing company was established by the Islamic Corporation for the Development of the Private Sector (ICD) in 2011 (Asadov & Gazikhanov, 2015). It was only after the new government came to power in 2016 that some new sparks of hope appeared for the introduction of Islamic finance. Despite some initiatives by the new government and some private initiatives resulting in the establishment of some IFIs (such as *takāful* and *ijārah* companies and Islamic microfinance institutions), the country still lacks formal legislation allowing for the smooth operation of IFIs in the country (Moody's Investors Service, 2020; Nusrathujiev, 2021).

Regarding ICM developments, Uzbekistan is far behind its neighbours. So far there was only one official initiative to legalise ICM activities in the country in 2019. Then, the Capital Markets Development Agency (CMDA) of the Republic of Uzbekistan proposed a strategy for the development of the capital market in the country for 2020–2025. As part of this strategy, it was proposed that *ṣukūk* be issued by mid-2020 with the technical support of the IsDB. Accordingly, a legal act to support such *ṣukūk* issuance was supposed to have been passed by the government of Uzbekistan in 2020 (Nagimova, 2021). However, as of 2023, no *ṣukūk* had been issued and no such legislation had been adopted.

On the other hand, ICM developments are quite noticeable in neighbouring Central Asian countries and the Russian Federation. Kazakhstan is considered the regional leader in the development of the ICM. The Islamic finance law of Kazakhstan was adopted in 2009, and some amendments were made in 2011 to allow for *ṣukūk* issuances. In 2012, the government of Kazakhstan placed its first sovereign *ṣukūk* issued by the Development Bank of Kazakhstan (Dawn, 2012). The five-year *ṣukūk* worth MYR240 million (USD75 million) was facilitated by Malaysian Islamic banks. Furthermore, in 2020, a USD500 million *ṣukūk* issued by the Qatar International Islamic Bank was jointly placed on the Astana International Exchange (AIX) and the London Stock Exchange (LSE), marking the debut of a foreign entity in Kazakh stock exchanges (Nagimova, 2021).

In another Central Asian country, Kyrgyzstan, amendments allowing the issuance of Islamic securities were incorporated into the law 'On the Securities Market' in 2016. The envisioned objective of the amendments was to pave the way for the introduction of *ṣukūk* into the country's capital markets. Consequently, the State Mortgage Company of Kyrgyzstan introduced a new 2020-2025 programme in 2019 which allowed for the issuance of new financial instruments called Islamic securities and housing certificates and allowed for the raising of up to 1.25 billion Kyrgyz Som (Nagimova, 2021). More recently, the Hong Kong-based Intercascade Group placed the first private issuance of *muḍārabah ṣukūk* to qualified institutional investors, worth 750 million Kyrgyz Som (USD8.55 million), in April 2023. This was a landmark issuance of Islamic securities in Kyrgyzstan that was overseen by Interstate Securities as the lead manager of the transaction and financial advisor (IFN, 2023).

Even the Russian Federation, having only a Muslim-minority population, has made some progress in terms of ICM activities. In 2017, the special purpose vehicle (SPV) Sukuk Invest

LLC tried out the first technical *ṣukūk* issuance with a symbolic amount equivalent to USD15,700. The trial was successful, which proved the potential of *ṣukūk* issuances in Russia (Nagimova, 2021). Furthermore, on 14 October 2021, the Moscow Exchange launched Russia’s first Islamic equity index. The exchange undertook the initiative jointly with Sberbank, and it resulted in the initiation of two Islamic indexes, the MOEX Shariah Index (MXSHAR) and the MOEX Shariah Total Return Index (MXSHARTR). The Sharī‘ah supervisory board responsible for the Sharī‘ah screening of securities included in the indexes was formed by Sberbank’s UAE-based investment subsidiary, Sberinvest Middle East Limited (Anadolu Agency, 2021).

Table 1 summarises the above initiatives related to the ICM.

Table 1: ICM Initiatives in CIS Countries

Country	ICM Initiatives
Kazakhstan	<ul style="list-style-type: none"> • Islamic finance law was passed in 2009 and amended in 2011 to allow for <i>ṣukūk</i> issuances • The first sovereign <i>ṣukūk</i> issued by the Development Bank of Kazakhstan in 2012 • The first foreign <i>ṣukūk</i> placement on the Astana International Exchange (AIX) in 2020
Kyrgyzstan	<ul style="list-style-type: none"> • Amendments made to the law ‘On the Securities Market’ in 2016 • The State Mortgage Company programme for 2020–2025 allowed for the issuance of Islamic securities and housing certificates • Private issuance of <i>muḍārabah ṣukūk</i> by Intercascade Group in 2023
Russian Federation	<ul style="list-style-type: none"> • The first technical <i>ṣukūk</i> issuance by SPV Sukuk Invest LLC in 2017 • Two Islamic indexes initiated by the Moscow Exchange and Sberbank in 2021

Source: Authors’ own

Although a number of ICM initiatives took place in some Central Asian countries and the Russian Federation, the same has not been observed in the case of Uzbekistan. Moreover, there are not many studies scrutinising the potential of ICM development or analysing the legal aspects of introducing ICM products in the country. There are only a few studies analysing the legal approaches to the introduction of Islamic investment funds (Jumagulov, 2023), the feasibility study of green *ṣukūk* issuances (UNDP, 2021), the importance of sovereign retail *ṣukūk* (Holboboyev & El Amri, 2022) and some other general studies related to Islamic finance in Uzbekistan. Therefore, this paper attempts to analyse this issue and examine the reasons hindering the introduction of ICM products in Uzbekistan. By addressing the research questions stipulated under the introduction of this paper, this study aims to fill in the identified research gap in the literature.

METHODOLOGY AND DATA

This study assesses the current condition of the capital market in Uzbekistan and examines the legal barriers to the introduction of ICM products in the country by employing both primary and secondary data. Primary data were collected by conducting interviews with experts familiar with Islamic finance and Uzbekistan’s capital markets. More specifically, six experts with various backgrounds coming from academia, financial consulting, financial practice and management of international financial organisations were selected to learn their opinions on the possibility of introducing the ICM in Uzbekistan. Three of the interviewees reside in the country, while the other three live abroad. The interviewees were asked eight questions related to the level of

capital market and Islamic finance development, as well as the prospects and obstacles relating to ICM development.

In addition to primary data, secondary data were collected and organised related to legal issues surrounding the ICM in Uzbekistan. The secondary data were compiled by collecting relevant legal documents from Uzbekistan's financial sector, specifically the capital market industry. Furthermore, some practices of neighbouring countries and some countries with developed ICMs were scrutinised to investigate the specifications of the regulatory environment required for the introduction of ICM products.

Thus, the study employed qualitative methodologies, which consisted of a combination of analytical assessments of data obtained from the conducted interviews and examination of legal documents connected with the introduction of the ICM in Uzbekistan. It employed a structured interview method, followed by deductive analysis. The interviewees were asked at least two questions related to the first research question, aiming to get indicative answers to the second research question related to the legal barriers preventing the introduction and development of the ICM. Furthermore, the interviewees were asked to suggest the best model to be applied in introducing the ICM industry in the country, which helped answer the last research question.

For the legal scrutiny, secondary data were used; presidential decrees, decree proposals, laws and financial regulations about the capital market in Uzbekistan were examined. Other legal documents that could potentially affect the operation of the ICM in the country were also analysed. These legal and regulatory documents were studied to assess their compatibility with the requirements of the ICM. Subsequently, these issues were aligned with the theory and opinions of Islamic finance scholars found in the literature and the practices of other countries to provide recommendations for enabling the introduction of the industry in Uzbekistan.

FINDINGS AND DISCUSSION

Financial Literacy, Awareness of Islamic Finance and Demand for the ICM in Uzbekistan

In September 2021, the IsDB held its annual meeting in Tashkent, the capital of Uzbekistan, marking the official welcome of Islamic finance in the country. During the meeting, some government officials of Uzbekistan were questioned by a number of event participants as to why Islamic finance had not been officially introduced in the country. One official attributed the delay in the introduction of Islamic finance to the people's lack of confidence in the banking system in general and their low level of Islamic finance literacy (Kun.uz, 2021). Another Uzbek official gave a similar answer to a similar question: lack of trust in the banking system and the need for time to develop such trust and enhance people's familiarity with Islamic banking among the public before the country is able to introduce Islamic financial services (Depozit.uz, 2021). Nevertheless, what both officials seemed to have overlooked is the lack of financial inclusion caused by the dearth of Islamic financial services in the country. As some panellists emphasised, Muslims desire Islamic financial services as a matter of faith, not because they mistrust traditional banks, especially in Muslim-majority countries such as Uzbekistan. Therefore, it is imperative to consider this issue on a broader scale, providing all segments of the population with financial services that align with their faith (Depozit.uz, 2021).

Against this background, it is intriguing to explore the general knowledge of the people in Uzbekistan about capital markets and Islamic finance products. The goal is to ascertain whether the level of public awareness about Islamic finance and capital markets significantly impacts their demand for ICM products. According to the 2014 S&P Global Financial Literacy Survey, Uzbekistan ranks amongst the CIS countries with the lowest level of financial literacy (Klapper *et al.*, 2016). The survey found that only 21 per cent of the adult population was financially literate in 2014, a figure much lower than that of some other Muslim-majority CIS countries, such as Kazakhstan and Azerbaijan, which had financial literacy rates of 40 per cent and 36 per cent, respectively, among their adult populations (Klapper *et al.*, 2016). This could be attributed to an extended period in Uzbekistan during which there was no national strategy to promote financial literacy. Only recently has the government of Uzbekistan begun initiating financial literacy programmes (Morgan *et al.*, 2018).

Furthermore, Uzbekistan adopted the National Financial Inclusion Strategy for 2021–2023 (NFIS) in June 2021. The central bank developed it to promote financial literacy, financial consumer protection, basic and digital financial services, and access to finance for micro, small and medium-sized enterprises (MSMEs). It received the technical support of international organisations, namely the World Bank and the International Finance Corporation, and was funded by the Financial Sector Reform and Strengthening Initiative (FIRST) (UzDaily, 2021; Babasyan *et al.*, 2023).

Despite these recent programmes and strategies aimed at improving financial literacy, elevating the populace's financial literacy level in a short period is challenging. A positive development in this regard is the recent surge in the number of trainings and materials providing information on capital markets and Islamic finance in the Uzbek language. Nevertheless, it is suspected that the general public's knowledge and awareness of these topics remain superficial in Uzbekistan, and the interviewees' responses in this study confirm this doubt. Specifically, one of the interviewed experts stated: 'There is high demand for Islamic finance products in Uzbekistan, but I think it is important to improve the financial literacy of Uzbek people first. It is not just financial literacy but also Islamic financial literacy.' As a solution, he suggests implementing an Islamic financial system gradually in the country by introducing some elements of it at a time.

When it comes to the capital markets in general, one of the interviewees indicated that the capital market of Uzbekistan has undergone great changes in recent years as new investment opportunities have opened up in the country. People's interest in the stock market and investment has been increasing substantially. However, the same cannot be said for the ICM, as such financial products are not available in Uzbekistan yet. Thus, it can be inferred that as Islamic finance products become available in a country, the general public's awareness of Islamic finance will also improve. This contradicts the argument of some government officials who state that the general public is not ready for the introduction of Islamic finance due to their low level of financial literacy.

When asked whether they believed the population of Uzbekistan is ready to embrace Islamic finance, five out of the six interviewed experts stated that it is, while only one suggested that improving financial literacy on Islamic finance could enhance the adoption of Islamic financial services by the people. However, he did not imply this as a prerequisite for the

establishment of Islamic finance in Uzbekistan. Instead, the expert proposed a gradual introduction of the industry's services to enhance people's awareness about Islamic finance in the process.

All the interviewees responded positively to an inquiry about the prospects for the development of the ICM in Uzbekistan and its comparison with other CIS countries. Their conclusions were primarily justified by the relative size and devotion of the Muslim population in Uzbekistan. Another justification was the unsatisfied demand for alternative investment and financing opportunities that the ICM could offer for both individuals and businesses. At present, mainly conventional banking services are available for both investors and borrowers, which leaves many unsatisfied due to the aspect of Sharī'ah non-compliance on the one hand, and relatively high costs on the other.

Development of Capital Market Regulations in Uzbekistan

In 1992, the Uzbekistan Parliament adopted the Law on Exchanges and Exchange Activities to regulate commodity exchanges, currency exchanges, stock exchanges and exchanges dealing with intellectual property, among others (Republic of Uzbekistan, 1992). This law stipulated that stock exchanges and commodity exchange divisions dealing with stocks would be regulated by specific laws. This special legislation came in the form of the Law on Securities and Stock Exchanges, adopted on 2 September 1993. This law established the rules for capital market regulation and laid the foundations for its development in Uzbekistan. Further key regulations were the Law of the Republic of Uzbekistan 'On the Mechanism of Functioning of the Securities Market' (25 April 1996) and the Law 'On Joint-Stock Companies and Protection of the Rights of Shareholders' (26 April 1996).

Despite these efforts, the domestic capital market remained underdeveloped and did not play a significant role in mobilising financial resources in Uzbekistan. This can be partly attributed to the inefficiency of the existing capital market legal framework, which does not align with international standards or practices (UNDP, 2021). According to a press release by the Capital Market Development Agency (CMDA), which regulated the securities market in Uzbekistan until April 2021, the volume of transactions in financial securities has been low in the national stock exchange. The market capitalisation of listed companies was a mere 5.3 per cent of gross domestic product (GDP). In contrast, the market capitalisation of listed domestic companies in neighbouring Kazakhstan and the Russian Federation accounted for 21.7 per cent and 34.8 per cent of GDP, respectively (Dettoni, 2019).

The current capital market infrastructure of Uzbekistan is overly complex, with the roles of different regulators often overlapping. Article 55 of the law 'On the Securities Market' (2015) vaguely states that 'The authorized state body for regulating the securities market is determined by the President of the Republic of Uzbekistan'. Since the adoption of this law in 2015, several state agencies have been appointed as the securities market regulator in Uzbekistan. Initially, the Centre for Coordination and Development of the Securities Market under the State Competition Committee of the Republic of Uzbekistan was designated as the regulator. In January 2019, the CMDA was established by presidential decree, replacing the Centre for Coordination and Development of the Securities Market and assuming all its functions. However, the CMDA only functioned for two years; in April 2021, all of its functions and powers as the securities market

regulator were transferred to the Capital Market Development Department of the Ministry of Finance (Republic of Uzbekistan, 2021b). As of 2 September 2023, this authority to regulate the capital market was transferred again to the National Agency of Prospective Projects (NAPP) under the President of Uzbekistan (Gazeta.uz, 2023).

The Central Bank of the Republic of Uzbekistan also has regulatory power in the sphere of the capital market. The Central Bank serves as the fiscal agent of the government in the case of state bond placements issued by the Ministry of Economy and Finance and other state agencies. It advises the Ministry of Economy and Finance on matters concerning the schedule and volume of state bond issuances and state debt payments, considering their potential impact on the liquidity of the banking system and monetary policy priorities (Republic of Uzbekistan, 2015). The Central Bank adopts rules on the placement and circulation of depositary certificates and bills of exchange in conjunction with the authorised state body for the securities market (currently the NAPP).

The Agency for State Assets Management of Uzbekistan also has the power to organise the issuance and circulation of bonds and shares of enterprises with state participation (Republic of Uzbekistan, 2019a). Having multiple regulatory bodies overseeing the capital market in Uzbekistan further complicates the regulatory landscape. Therefore, establishing a capital market regulator that operates independently from other state agencies is a critical issue.

The International Organization of Securities Commissions (IOSCO) sets global standards for the securities sector. One of IOSCO's principles regarding securities regulators stipulates that regulators should be accountable and operationally independent (OICV–IOSCO, 2017). According to an assessment by the European Bank for Reconstruction and Development (EBRD), Uzbek securities legislation does not require the securities market regulator to be independent (OECD, 2013).

This finding is not particularly surprising given that, unlike in many developed countries, the independence of state regulators is not a stipulated requirement in the securities market legislation in Uzbekistan. This is according to a 2007 assessment of the securities market regulator conducted by the EBRD (OECD, 2013).

Based on the analysis of legal documents and expert feedback, establishing a single entity to oversee capital markets, similar to the Securities and Exchange Commission of the United States, the Securities Commission of Malaysia, or the Capital Market Authority of Saudi Arabia, would be beneficial for standardising the securities market in Uzbekistan. Such a central authority would facilitate the introduction of new capital market products. If the responsible agency were granted a sufficient level of independence, it could make more proactive decisions, contributing to the overall development of the country's capital markets, which is one of the attributes found for countries that issue *shukūk* (Boujlil *et al.*, 2020).

When it comes to the level of capital market development in Uzbekistan, all of the interviewees believed that it is underdeveloped. They cited several reasons, including low investment engagement, limited competition, a weak connection between the economy and financial markets, inadequate protection of investors' rights, and underdeveloped stock exchange infrastructure. They also highlighted the lack of a long-term capital market development programme, which has made both foreign and local investors hesitant to enter the capital market of Uzbekistan.

However, the government recently adopted the Capital Market Development Program (CMDP) for 2021–2023 (Republic of Uzbekistan, 2021b). The CMDP acknowledged the main problems facing the country's capital market, such as the extremely low volume of securities freely traded on the exchanges (only 0.4 per cent of Uzbekistan's GDP). This was attributed to the lack of a strategic planning system for capital market development and the existence of an overwhelming number of legal acts, most of which are outdated and do not meet modern standards for capital markets (Republic of Uzbekistan, 2021b).

The CMDP aims to deepen reforms in the capital market with the expectation of increasing the total volume of publicly traded securities to 5 per cent of the country's GDP by the end of 2023. The current securities legislation still lacks provisions assuring the independence of the regulator. However, the CMDP envisions that its primary objective under the direction of 'improving the legal regulation and oversight of the capital market' is to create an effective legal framework by developing the law 'On the Securities Market'. This law should be drafted based on the principles laid down by IOSCO and should ensure the real independence of the capital market regulator (Republic of Uzbekistan, 2021b).

Compatibility of Uzbekistan's Current Capital Market Regulations with ICM Requirements

In January 2019, the CMDA was established, with one of its objectives being to attract foreign investment to Uzbekistan. To draw Islamic finance funds as a source of investment, the CMDA developed a draft of the Presidential Decree of the Republic of Uzbekistan 'On Measures of Introducing Securities Based on Islamic Principles' in 2020. This draft act proposed rules and regulations that would enable the issuance and circulation of *ṣukūk* in the country. The CMDA was designated as the authorised agency responsible for the regulation of issuance, placement and circulation of *ṣukūk* under Islamic finance principles.

The CMDA aimed to introduce *ṣukūk* by attracting technical assistance and financial support from the IsDB. Regrettably, the draft act was not adopted. The CMDA was instead dissolved, and all its powers were transferred to a department of the Ministry of Finance (now the Ministry of Economy and Finance) (Republic of Uzbekistan, 2021b).

Unfortunately, to this date, the matter of legislation on the issuance and circulation of *ṣukūk* has been left ambiguous in Uzbekistan. Several provisions relating to the rights and obligations for the issuance of *ṣukūk* in Uzbekistan, which were previously assigned to the CMDA, were incorporated into the Presidential Resolution 'On Measures for Further Improvement of the Capital Market Regulatory System'. The resolution was issued and the Capital Market Development Program (CMDP) was adopted on 13 April 2021 (Republic of Uzbekistan, 2021b). The CMDP aims to experimentally issue *ṣukūk* by applying foreign legislation until appropriate capital market regulation is developed in Uzbekistan. The CMDP also empowered the corresponding state authorities to develop a draft law on the capital market to unify legal acts in the field of securities market regulation based on international best practices.

However, opinions gathered from interviews suggest that the current legal infrastructure of the capital market in Uzbekistan does not comply with ICM requirements. Nonetheless, the country can begin by preparing a legislative framework to accommodate the issuance and trading

of *ṣukūk*, for which draft work has already begun. Uzbekistan could follow the United Kingdom's (UK) example in terms of its legislative approach. Rather than drafting new legislation for Islamic finance, the UK chose to adjust existing laws and rules regulating traditional financial instruments. Regulatory changes were made to oversee minor formalities used in Islamic finance instead of introducing separate legislation regulating Islamic finance products (Dewar & Hussain, 2021).

However, another obstacle in Uzbekistan's legislation might hinder the recognition of *ṣukūk* as a security in the country. Article 96 of the Civil Code of the Republic of Uzbekistan (Part One) classifies and restricts financial securities to those recognised by legislation as commercial paper and securities (Republic of Uzbekistan, 1995). Securities legislation classifies only company shares, promissory notes, treasury bills, depositary receipts, certificates of deposit, bonds and options as securities (Republic of Uzbekistan, 2015). Therefore, to classify *ṣukūk* as a security, the current legislation would need to be amended. Alternatively, at least for the pilot issuance of *ṣukūk*, the draft act that defines *ṣukūk* as a security and regulates its pilot issuance should be adopted.

The Islamic Financial Services Board (IFSB) suggests that to promote the formation of a resilient and deep ICM in a jurisdiction, legal and regulatory barriers must be eliminated by introducing laws and regulations that cater to the special requirements of ICM products. This can facilitate the development of Islamic securitisation and the creation of new financial instruments that are Sharī'ah compliant (IFSB, 2022). In line with the IFSB's suggestion, Uzbekistan could also follow Russia's example by forming a Sharī'ah-compliant Islamic investment index and establishing a Sharī'ah board and screening methods for analysing stocks and other securities to be included in the index. Particularly, the development of capital markets, including Islamic ones, is crucial.

The original proposal of the Presidential Decree 'On Measures for the Introduction of Securities Based on the Principles of Islamic Finance' suggested many steps that would have facilitated the introduction of *ṣukūk* into Uzbekistan's capital market—an instrument deemed highly important for the development of ICMs (Hassan *et al.*, 2022). Important recommendations included providing tax exemptions related to the issuance of *ṣukūk*, such as exemptions from profit, property, land, sales and value-added taxes during financial transactions for both involved parties and the transactions of the SPV formed specifically for the issuance of *ṣukūk* (The Republic of Uzbekistan, 2020). At the moment, Uzbekistan's Tax Code in Article 244 exempts transactions in financial securities from paying value-added tax (VAT) (Republic of Uzbekistan, 2019b). However, this tax incentive would only apply to transactions with *ṣukūk* certificates if *ṣukūk* is recognised as a security in the legislation, without which VAT on such transactions becomes another burden for the issuance of *ṣukūk* in the country.

With no formal regulation governing Islamic finance activities in Uzbekistan, there are no set rules regarding the Sharī'ah advisory board that would confirm the Sharī'ah compliance of *ṣukūk* issuances. The proposed decree 'On Measures for the Introduction of Securities Based on the Principles of Islamic Finance' touched upon this matter. Surprisingly, it suggested the designation of the Committee of Religious Affairs (CRA) under the Cabinet of Ministers of Uzbekistan as the responsible body for certifying the conformity of the issuance, placement and

circulation of *ṣukūk* certificates with Islamic finance principles, thus making it the Sharī'ah advisor for the issuance and oversight of *ṣukūk*.

However, the CRA is a special government agency that implements state policies in the religious sphere in Uzbekistan, which is not limited to Islam. It lacks the adequate expertise and staff to serve as a Sharī'ah advisor for matters concerning Islamic financial transactions (Republic of Uzbekistan, 2021a). Instead, the Muslim Board of Uzbekistan (MBU)—a governing body of Muslim organisations coordinating the activities of Islamic organisations and educational establishments—would be a more appropriate organisation (Muslim Board of Uzbekistan, n.d.; CRA, 2020). Therefore, the MBU could be initially assigned to provide guidance on Sharī'ah matters or recommend candidates as potential advisors for the Sharī'ah board of the entity issuing *ṣukūk*.

A Sharī'ah council or Sharī'ah advisor should be an independent body and must adopt its decisions according to Islamic principles independently. For instance, the capital market legislation of Kyrgyzstan indicates that the Sharī'ah council is an independent body confirming the compliance of the issuance, circulation and redemption of Islamic securities with Islamic finance principles. The council is formed by the requirements of regulatory legal acts of the Government of the Kyrgyz Republic (The Kyrgyz Republic, 2009).

Nonetheless, once Islamic finance makes significant inroads into the country, the regulator may consider the formation of separate Sharī'ah advisory committees responsible for the ICM and IFIs, as seen in countries such as Malaysia. In the case of Malaysia, the Shariah Advisory Committee (SAC) under Bank Negara Malaysia, the Malaysian central bank, supervises the Sharī'ah compliance aspects of deposit-taking institutions, while the Securities Commission Malaysia, a governmental body for the supervision of capital markets, has a separate SAC to oversee the Sharī'ah compliance of Islamic securities. In the Malaysian 'Guidelines on Islamic Capital Market Products and Services', the role of the Sharī'ah advisor includes, among other things, advising on all aspects of ICM products and services. These include ensuring that documentation, structuring, features and investment instruments, are in accordance with Sharī'ah requirements. It, moreover, makes sure that the applicable Sharī'ah rulings, principles and concepts as approved by the SAC are complied with, and applies *ijtihād* (intellectual reasoning) to ensure all aspects of the ICM products and services comply with Sharī'ah (Securities Commission Malaysia, 2022).

As Uzbekistan moves towards adopting Islamic financial market legislation, it can incorporate successful practices of other Muslim countries such as Malaysia, Saudi Arabia, the United Arab Emirates (UAE), Kazakhstan, Bangladesh and Indonesia as recommended by the experts interviewed in this study. These countries' diverse experiences in issuing sovereign, corporate and retail *ṣukūk*, and in developing Islamic funds and indexes, can provide valuable insights for Uzbekistan. For instance, the success of Indonesia with the issuance of retail sovereign *ṣukūk* with a low denomination can also be replicated in Uzbekistan (Danila *et al.*, 2023).

Nonetheless, most experts who took part in the interviews proposed adopting the Malaysian model of ICM regulation. Malaysia, an undisputed leader in the sector, has enacted three Capital Market Masterplans from 2001 until the present. The latest Masterplan 3 (2021–2025) sets comprehensive objectives for sustainability, efficiency and diversification. Securities

Commission Malaysia (2023) issued the ‘Maqasid Al-Shariah Guidance for Islamic Capital Market Malaysia’, which emphasises the *maqāṣid al-Sharī‘ah* (objectives of Islamic law) principles such as justice, benevolence, transparency, flexibility, fiduciary, accessibility and accountability.

Other two Muslim-majority countries that were proposed as role models for Uzbekistan are the UAE and Saudi Arabia. The UAE has longstanding experience in this arena, while Saudi Arabia, despite its recent entrance into it, has quickly become a competitor to Malaysia in *ṣukūk* issuances, thanks to its ambitious strategies. Moreover, some Western countries, such as Luxembourg and the United States, have shown considerable success in issuing *ṣukūk* and developing ICMs, even though other sectors of Islamic finance have not been as prominent in these nations. For instance, in terms of assets managed by Islamic funds, the United States and Luxembourg rank fifth and sixth globally, with USD7 billion and USD4 billion in assets, respectively. Additionally, Luxembourg hosts 145 operating Islamic funds (ICD-Refinitiv, 2022). This observation suggests that all branches of Islamic finance do not need to be fully operational within a country for it to cultivate a thriving ICM industry.

Overall, the lessons and experiences that can be gained from the introduction of an ICM in Uzbekistan are invaluable. Particularly, the experience can be enhanced by experimenting with the issuance of *ṣukūk*, establishing Islamic indexes, and permitting the operation of Islamic funds as some of its neighbours have done. Of greater significance, with minor modifications to the existing financial legislation, Shari‘ah-compliant securities such as *ṣukūk* and shares of Islamic mutual funds could be issued in the country. Such experience can provide the Uzbek government with the necessary exposure and knowledge required for drafting legislation for the full adoption of the Islamic finance industry in the country.

Table 2 summarises the legal challenges facing ICM products in Uzbekistan that are discussed above and provides some of this study’s proposed solutions and country practices as a reference.

Table 2: Legal Challenges and Proposed Solutions for the ICM in Uzbekistan

Legal Challenge	Proposed Solution	Reference Practices
Transactions with Islamic financial products are subject to taxation, which could impose an extra burden on the issuance of <i>ṣukūk</i> and other securities.	Adjust tax legislation or introduce a separate law to avoid double taxation of Islamic finance transactions.	<ul style="list-style-type: none"> ▪ 2009 Islamic finance law of Kazakhstan allowed for tax exemption of Islamic financial transactions. ▪ Amendments made to the law ‘On the Securities Market’ of Kyrgyzstan in 2016 allowed for tax exemption of Islamic securities. ▪ Malaysia adjusted laws that govern taxation to accommodate for the smooth operation of Islamic financial transactions: changes made in the Stamp Duty Act 1949, the Real Property Gains Tax Act, 1976, and the Income Tax Act 1967.

Legal Challenge	Proposed Solution	Reference Practices
Frequent changing of the principal capital market regulator and several state authorities having the power to regulate capital markets.	To establish a single independent state agency to regulate the capital markets by enacting it in the country's legislation.	<ul style="list-style-type: none"> ▪ Establishment of the Securities Commission Malaysia by the Securities Commission Malaysia Act 1993. ▪ Securities and Exchange Commission of the United States, which was created under the Securities Exchange Act of 1934.
The legal infrastructure of the capital market in Uzbekistan does not comply with the ICM requirements.	To create a legal framework for the ICM by adopting a special law or adjusting existing laws and financial regulations controlling traditional financial instruments to accommodate the issuance and trading of Islamic securities.	<ul style="list-style-type: none"> ▪ Experience of the UK in adjusting existing laws and rules regulating traditional financial instruments to regulate the ICM. ▪ Passing of 2009 Islamic finance law of Kazakhstan. ▪ Amendments made to the law 'On the Securities Market' of Kyrgyzstan in 2016.
Absence of a special Shari'ah board that confirms the Shari'ah compliance of the issuance, circulation, and redemption of Islamic securities.	To establish an independent Shari'ah board within the capital market regulator.	<ul style="list-style-type: none"> ▪ Amendments to the Securities Law of Kyrgyzstan 2016 provide for the establishment of an independent Shariah Council. ▪ The establishment of an independent Shariah Advisory Council (SAC) within the Securities Commission Malaysia.

Source: Authors' own

CONCLUSION

There is a common assumption that the development of an ICM requires the mandatory presence of other IFIs offering their services and products. However, according to Muneeza (2018), who studied ICM development in Maldives, this assumption does not apply universally. Her analysis showed that an ICM was successfully established in Maldives when only one Islamic bank and one *takāful* company were operating. This indicates that if political will and supporting regulations are in place, the ICM can be established in a country such as Uzbekistan with a relatively nascent and underdeveloped Islamic finance infrastructure.

This study explores the opportunity for introducing the ICM in Uzbekistan and examines the legal hindrances that can prevent its implementation. Accordingly, the researchers conducted interviews with Islamic finance and capital market experts to learn their opinions regarding the awareness of the general public about ICM products, the existence of demand for such products amongst the general public, and possible legal challenges that the ICM can face if it is introduced in Uzbekistan. The majority of the experts interviewed affirmed the presence of a large untapped demand for ICM products and a promising potential for the industry's development despite people's relatively low literacy regarding Islamic finance. Based on this study's analysis of Uzbekistan's capital market regulations and experts' feedback, it can be concluded that the current level of capital market development in Uzbekistan is significantly below its full potential and that the current legal and regulatory infrastructure is not conducive to the integration of the ICM.

To improve the operations of the capital markets and to make them suitable for introducing and expanding the ICM, it is recommended that the relevant parties undertake some essential legal and practical measures. These include the following:

- Introducing adjustments in relevant financial regulations to promote the development of the ICM and independence of its regulator.
- Establishing conducive legal infrastructure for the smooth operation of the ICM industry.
- Adopting best practices from successful reforms of neighbouring countries or other countries with developed ICMs.

Based on the researchers' assessment and recommendations of interviewed experts, Malaysia is the best model to be emulated in developing an ICM framework based on its current legislation, implementation of the capital market masterplan, and Sharī'ah guidelines as compared to other jurisdictions. Uzbekistan could learn from the Malaysian experience in ICM development to establish a viable and competitive ICM industry for the benefit of its Muslim-majority population.

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DECLARATION

Credit Authorship Contribution Statement

- Alam Asadov: Conceptualization, Investigation, Writing original draft, Review & editing, Supervision, Funding acquisition.
- Ikhtiyorjon Turaboev: Investigation, Writing original draft, Methodology, Formal analysis, Resources.
- Mohd Zakhiri Md. Nor: Formal analysis, Resources, Writing, Review & editing, Visualization.

Declaration of Competing Interest

The authors declare that they have no known competing financial interest or personal relationships that could have influenced the research work.

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Data Availability

Data will be made available on request from the corresponding author.

Appendix

None

THE MODERATOR EFFECTS OF OWNER-MANAGER KNOWLEDGE ON THE INTENTION TO ADOPT ISLAMIC FINANCING FACILITIES IN MALAYSIA

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ABSTRACT

Purpose — The research aims to investigate owner-manager knowledge as a moderator variable enhancing the intention to adopt Islamic financing facilities (IFF).

Design/Methodology/Approach — The research obtained primary data by conducting a survey of 237 participants from halal-certified companies in Malaysia. The data were evaluated using the partial least squares (PLS) method to verify the hypothesis.

Findings — The findings demonstrate a considerable positive influence of relative advantage, top management support, owner-manager knowledge and competitive pressure on the intention to adopt IFF. It was also demonstrated that owner-manager knowledge had a negative and significant effect on the relationship between complexity, top management support, and the intention to apply IFF.

Originality/Value — The research identifies a number of gaps in the current literature. Firstly, it addresses the limitations of previous research on the adoption of IFF at an organisational level. Secondly, it examines the role of owner-manager knowledge as a moderating factor in the relationship between innovation, organisational and environmental (IOE) characteristics, and adoption intention, which has not been explored in any empirical studies to date.

Research Limitations — This study has two main limitations. Firstly, the data analysis is based on a cross-sectional design, which cannot provide empirical evidence to support causal inferences. Secondly, the majority of the respondents are from the food/beverage/food supplement industry, as revealed in the results.

Practical Implications — These findings can guide stakeholders in developing effective strategies to enhance the adoption of IFF by halal-certified companies in Malaysia.

Keywords — Diffusion of innovation (DOI) theory, Halal-certified company, Islamic financing facilities (IFF), Technology, organisation and environment (TOE) framework

Article Classification — Research paper

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INTRODUCTION

The idea of combining the halal industry with Islamic finance was introduced at the 2011 World Halal Forum held in Kuala Lumpur, Malaysia (CrescentRating, 2011). This integration encourages halal-certified companies to adopt Shari'ah-compliant financing for their operations and provides them with ethical financing options (Malaysia International Islamic Financial Centre, 2014). In this regard, Islamic banks in Malaysia can encourage halal-certified companies to utilise comprehensive Islamic financing facilities (IFF) for businesses of various sizes, including fixed asset financing, trade finance working capital and expansion financing, treasury functions, and capital markets (Malaysia International Islamic Financial Centre, 2014).

Bank Negara Malaysia (BNM) has noted several advances in recent years and has made efforts to support this integration. These include: (1) the inclusion of the Islamic finance sector in the Malaysian International Halal Showcase (MIHAS); (2) business engagement programmes between halal-certified companies and Islamic financial institutions (IFIs); (3) partnerships between the industry and regulators; and (4) increasingly tailored financial solutions for halal-certified companies (World Bank Group, 2022). However, halal-certified companies have come into the spotlight primarily because of the low adoption of IFF. The latest findings from the World Bank Group (2022) revealed that only 43 per cent of halal-certified companies in Malaysia use IFF. Therefore, halal-certified companies still have to deal with the issue of prohibition of *ribā* (interest).

The Qur'ān (2:278–279) clearly states that Allah (SWT) declares war on those who deal in *ribā*. Allah (SWT) has forbidden *ribā* because it has dire consequences for moral, social and economic issues (Shahar *et al.*, 2016). From an economic perspective, *ribā* has implications on the investment and distribution of wealth, promoting the exploitation of the needy and economic instability (Shahar *et al.*, 2016). Attahiru (2022) shows that transactions in companies that involve some form of *ribā* would lead to higher economic destruction.

The sources of finance for halal-certified companies have been controversial since the 2000s. The extensive literature and research reports describe various measures and methods to encourage halal-certified companies to adopt Shari'ah-compliant financing throughout their supply chain. This involves looking at the factors that impact the intention to adopt IFF. However, there are still important issues that require further research and deliberation. First, although most studies (e.g., Balushi *et al.*, 2019; Asad *et al.*, 2021; Rasheed & Siddiqui, 2022) have focused on the individual level, halal-certified companies need to consider the adoption of IFF as an essential strategic advantage that helps organisations achieve their goals. Therefore, the objective of this study aims to determine the variables that influence the intention of halal-certified companies in Malaysia to adopt IFF at the organisational level. The results of this study will add to the knowledge base of what drives an organisation's intention to adopt IFF.

Secondly, the results of previous studies on the influence of innovation, organisational and environmental (IOE) characteristics on the adoption of innovative strategies are inconsistent. Baron and Kenny (1986) proposed a test for moderation effects to explain this inconsistency. Indeed, Thong (1999), Yan (2010) and Chen *et al.* (2010) confirmed that owner-manager knowledge is critical to innovate change in their companies. Owner-manager knowledge refers to the information and understanding possessed by the owner or manager of an organisation concerning IFF. Furthermore, Balushi *et al.* (2019) showed that greater knowledge of Islamic

financial products makes it easier for the owner-manager to make informed and confident decisions.

Hence, the purpose of this study is to discover the characteristics of IOE that have an impact on the intention to adopt IFF and examine the moderating influence of owner-manager knowledge on the relationship between IOE characteristics and IFF adoption. The paper then moves on to review previous studies on IFF and the theories that support the study. It also explores the variables that determine the IFF adoption intention in existing literature and the role of owner-manager knowledge as a moderator. Furthermore, the paper outlines the findings, encompassing the evaluation of both the measurement and structural models, and discusses the results related to each objective. Finally, the paper presents the conclusion of the study, comprising a summary of the research and delineating the research limitations.

LITERATURE REVIEW

Studies on Adoption of Islamic Finance by Businesses

Table 1 shows that previous studies on the adoption of IFF have utilised various theories. Most of the studies discussed have focused on the individual level, with only a few studies examining the factors that influence the intention to adopt IFF at the organisational level. Specifically, the most commonly used individual-level theory in IFF studies is the theory of planned behaviour (TPB) (Ajzen, 1985), which comprises an individual's attitude, subjective norms and perceived behavioural control. Nevertheless, Usman *et al.* (2022) argued that internal and external factors within the organisation are also crucial for the success of innovation adoption. In their study, Usman *et al.* (2022) only emphasised the external factors, specifically employing the institutional theory approach to determine the intention to adopt Islamic finance. Another study conducted by Mat Soha *et al.* (2023) focuses on internal and external organisational perspectives. To close this gap, this study aims to study internal and external organisational factors on the intention to adopt IFF among halal certified companies in Malaysia.

Table 1: Theories Used in Islamic Finance Adoption Studies

Theories	References
Individual level theories	
Theory of planned behaviour (TPB)	Jaffar & Musa (2016), Balushi <i>et al.</i> (2019), Rasheed & Siddiqui (2022)
Unified theory of acceptance and use of technology (UTAUT)	Bananuka <i>et al.</i> (2020)
Technology acceptance model (TAM)	Thaker (2018)
Decomposed theory of planned behaviour (DTPB)	Badaj & Radi (2018)
Diffusion of innovation (DOI) and UTAUT	Abdulkadir <i>et al.</i> (2022)
Organisational level theory	
Institutional theory	Usman <i>et al.</i> (2022)
Technology, Organisation, and Environment (TOE) framework and DOI theory	Mat Soha <i>et al.</i> (2023)

Source: Authors' own

Underpinning Theories

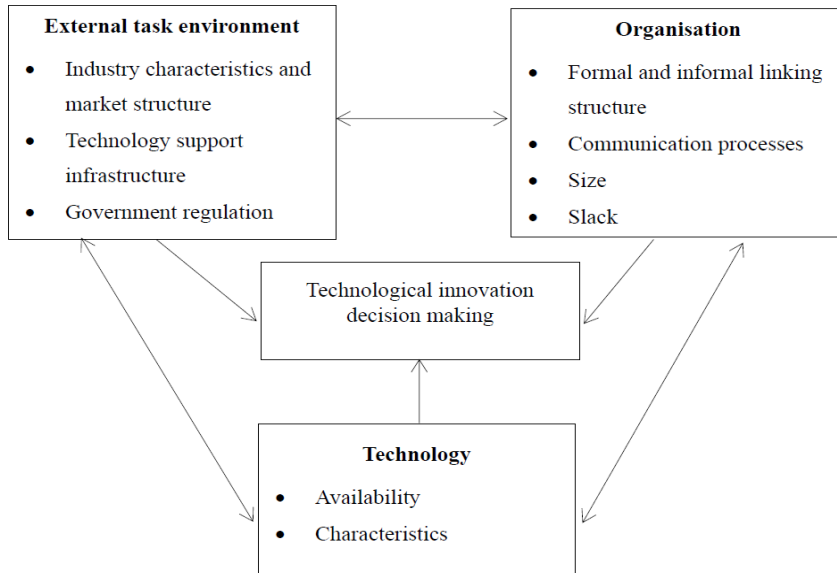
This study combines the technology, organisation and environment (TOE) framework with the diffusion of innovation (DOI) theory to describe the factors impacting the adoption intention of

IFF. Oliveira and Martins (2011) suggest that the DOI and TOE frameworks complement each other. The TOE framework lacks the inclusion of individual characteristics such as top management support, which is addressed by the DOI theory. On the other hand, the DOI theory does not consider the impact of environmental characteristics, which is included in the TOE framework. Combining both theories results in a more comprehensive and reliable explanation of technology/innovation adoption (Amin *et al.*, 2013) and has been shown to increase explanatory power in earlier studies (Wang *et al.*, 2010; Oliveira *et al.*, 2014).

Technology, Organisation and Environment (TOE) Framework

The TOE framework was formulated by Tornatzky and Fleischer (1990) who argued that an organisation’s structure should align with both its internal needs and the external environment. This framework is a widely adopted model that explains the adoption of technology and innovation. **Figure 1** highlights three main factors that impact the adoption of technology and innovation: technological, organisational and environmental characteristics. Specifically, technological characteristics refer to the available technology pool and its suitability for the company. Organisational characteristics include the descriptive traits of the company, such as its structure, size, management style and centralisation, as well as its resources and communication processes. Environmental characteristics relate to the business environment in which the company operates and how it can act either as a barrier or an opportunity for innovation.

Figure 1: TOE Framework



Source: Tornatzky and Fleischer (1990)

Diffusion of Innovation (DOI) Theory

The DOI theory examines how, why and at what pace new ideas and technologies are adopted and spread across organisations and cultures. The DOI theory states that innovations spread over time through specialised channels within a given social system (Rogers, 1995). According to the

DOI theory, relative benefit, compatibility, complexity, trialability and observability are five factors that may be crucial for the acceptance of a new innovation. Based on previous studies (e.g., Amin *et al.*, 2013; Yahaya *et al.*, 2014), this study emphasises, in particular, relative benefit, compatibility and complexity as variables influencing the IFF adoption intention. These factors are deemed to be significant in explaining the adoption behaviour in the context of IFF, as opposed to observability and trialability, which are not commonly used in IFF studies. The study seeks to determine how relative benefit, compatibility and complexity affect the decisions of Malaysian halal-certified companies to adopt IFF.

Relative Advantage

The relative advantage of an innovation is determined by how it is perceived as being better than previous ideas (Rogers, 1995). Relative advantage has been demonstrated to have a major impact on the adoption of various technologies or innovations, including cloud computing (Skafi *et al.*, 2020), green supply chain management (Lin *et al.*, 2020) and halal transportation (Ngah *et al.*, 2022). In each of these cases, relative advantage is considered a positive predictor of adoption and a key determinant in decision making. This study, therefore, explores the role of relative advantage in the intention to adopt IFF by halal-certified companies in Malaysia. The first hypothesis is spelt out as follows:

H1: Relative advantage positively impacts on the intention to adopt IFF.

Compatibility

Compatibility is the extent to which an innovation fits with current values, prior experiences, and the demands of future customers (Rogers, 2003). Many scholars have identified compatibility as a crucial factor in the adoption of innovation. For example, Lin *et al.* (2020) indicated that a higher level of compatibility is related with a greater intention to adopt green supply chain management. Alam *et al.* (2022) found that compatibility had a substantial influence on augmented reality technology adoption intention. Based on this, the subsequent hypothesis is proposed:

H2: Compatibility positively impacts on the intention to adopt IFF.

Complexity

According to Rogers (2003), complexity is the degree to which an innovation is viewed as being somewhat challenging to apply and understand. Previous studies have found that complexity is a barrier factor and is negatively related to innovation adoption. For example, Ngah *et al.* (2022) found that complexity has a negative impact on the intention to adopt halal transportation. Parvand and Rasiah (2022) indicated that complexity has a negative impact on millers' adoption of advanced milling technology. Considering the significant influence of complexity that could affect the intention to adopt IFF, the hypothesis below is proposed:

H3: Complexity negatively impacts on the intention to adopt IFF.

Top Management Support

Kor (2003) states that the top management is the highest-ranking executive which includes the chief executive officer, chief operating officer, business unit heads, and vice presidents. Top

management support is a key factor that influences the innovation adoption in organisations. Wahab *et al.* (2022) discovered that top management support positively influences the adoption of automated material handling equipment, while Ahmed *et al.* (2022) indicated that top management shows its support and provides the necessary resources for the adoption of building information modelling. Therefore, the adoption intention of IFF relies mostly on top management support. This leads to the subsequent hypothesis:

H4: Top management support positively impacts on the intention to adopt IFF.

Owner-Manager Knowledge

Previous scholars found that the knowledge of the owner-manager has an impact on the adoption of innovation. Balushi *et al.* (2019) pointed out that owner-manager knowledge about *mushārahah*, *muḍārabah* and *murābahah* influences the intention to adopt Islamic financial services. Awang *et al.* (2020) also found that knowledge of Islamic finance has a substantial and positive relationship on the adoption of Islamic financial management among halal-certified small and medium enterprises (SMEs) in Malaysia. Shahzad *et al.* (2020) found that e-commerce knowledge has a substantial and favourable impact on e-commerce usage in the Malaysian healthcare industry. Therefore, owner-managers who have more knowledge of IFF prefer to adopt IFF. The following hypothesis is thus presented:

H5: Owner-manager knowledge positively impacts on the intention to adopt IFF

Competitive Pressure

According to Lertwongsatien and Wongpinunwatana (2003), competitive pressure relates to the degree of competitive environment within the industry in which companies conduct their businesses. Competitive pressure is one of the important factors that drive halal businesses to fulfill the Muslims' demand. Alam *et al.* (2022) discovered that competitive pressure is a significant influence on the adoption of augmented reality among SMEs. Usman *et al.* (2019) also identified competitive pressure as having a positive significant influence on the adoption of cloud enterprise resource planning. Hence, that the following hypothesis is suggested:

H6: Competitive pressure positively impacts on the intention to adopt IFF

Customer Pressure

Customer pressure is defined as the degree of pressure that companies face in order to satisfy their customers' demand (Sophonthummapharn, 2009). In the halal industry, halal-certified companies are responsible to follow the halal certification procedure to ensure that Muslim customers receive halal goods and services. Customers may even boycott the products or services in case of any concern about their halal status. In previous studies, Abed (2020) highlighted that customer pressure is substantially and favourably related to the social commerce adoption intention in Saudi Arabian SMEs. Lin *et al.* (2020) pointed out that customer pressure significantly affects the adoption of green supply chain management. In addition, Ngah *et al.* (2022) emphasised that customer pressure is a significant influence on the halal transportation services adoption while Alam *et al.* (2022) discovered that customer pressure significantly influences the adoption of augmented reality. Consequently, the following hypothesis is proposed:

H7: Customer pressure positively impacts on the intention to adopt IFF.

Owner-Manager Knowledge as Moderator

Owner-manager knowledge of innovations has a strong influence on technology/innovation adoption. Since previous studies documented that the effects of IOE characteristics on IFF adoption intention are inconsistent, this study examines the moderator factor of owner-manager knowledge of IFF as a moderator of the relationship between IOE characteristics and IFF adoption intention.

Regarding the characteristics of innovation, the knowledge of the owner-manager could play a key role in enhancing IFF values. In particular, there are still many issues that need to be clarified about IFF. These include the contention that IFF is exclusively for Muslims (Muhamad *et al.*, 2020); that Islamic financing and conventional financing are the same (Yusof & Fahmy, 2008; Zin *et al.*, 2019; Shabbir & Rehman, 2019); that Islamic financing is more complicated than conventional financing (Swastika & Tobibatussaadah, 2019); and that Islamic financing is more expensive than conventional financing (Yusof & Fahmy, 2008). However, if the owner-manager has a high level of knowledge about IFF, the value of IFF will likely be increased. For example, Balushi *et al.* (2019) demonstrated that SMEs with business owners who know more about IFF understand their benefits.

In an organisational context, the owner-manager with higher innovation knowledge strengthens top management support. Top management has high influence on the path and success of knowledge management in an organisation (Nguyen & Mohamed, 2011). Moreover, top management is responsible for tracking the sources of knowledge and employs action plans to turn an individual's knowledge base into knowledge that is useful for the organisation (Khan *et al.*, 2020). A study by Štemberger *et al.* (2011) found that adequate knowledge is critical to gaining top management support in improving operational efficiency, implementing strategy and achieving competitive advantage. For example, Kuar *et al.* (2022) highlighted that top managers with environmental knowledge have a better understanding of business operations and environmental impacts, which can enhance their commitment to actively implement environmentally-friendly practices. Therefore, it is important that the owner-manager has sufficient knowledge to gain top management support for the adoption of IFF.

Within environmental characteristics, it is believed that the owner-manager with high knowledge of IFF has more positive responses to external pressure. Knowledge resources have special properties that contribute to the creation and maintenance of competitive advantages (King & Zeithaml, 2003). Knowledge would increase an owner-manager's motivation to recognise, evaluate and take advantage of an opportunity (Alvarez & Busenitz, 2001; Sommer & Haug, 2011). Hence, the owner-manager with IFF knowledge responds to external pressure as market opportunities by focusing on competitors' strategies, competing for market share, and meeting consumer demands.

This study addresses the literature gap since no previous research has examined how owner-manager knowledge affects the relationship between IOE characteristics and the intention to adopt IFF. Hence, the following hypotheses are proposed:

H8: Owner-manager knowledge moderates the relationship between relative advantage and intention to adopt IFF

H9: Owner-manager knowledge moderates the relationship between compatibility and intention to adopt IFF

H10: Owner-manager knowledge moderates the relationship between complexity and intention to adopt IFF

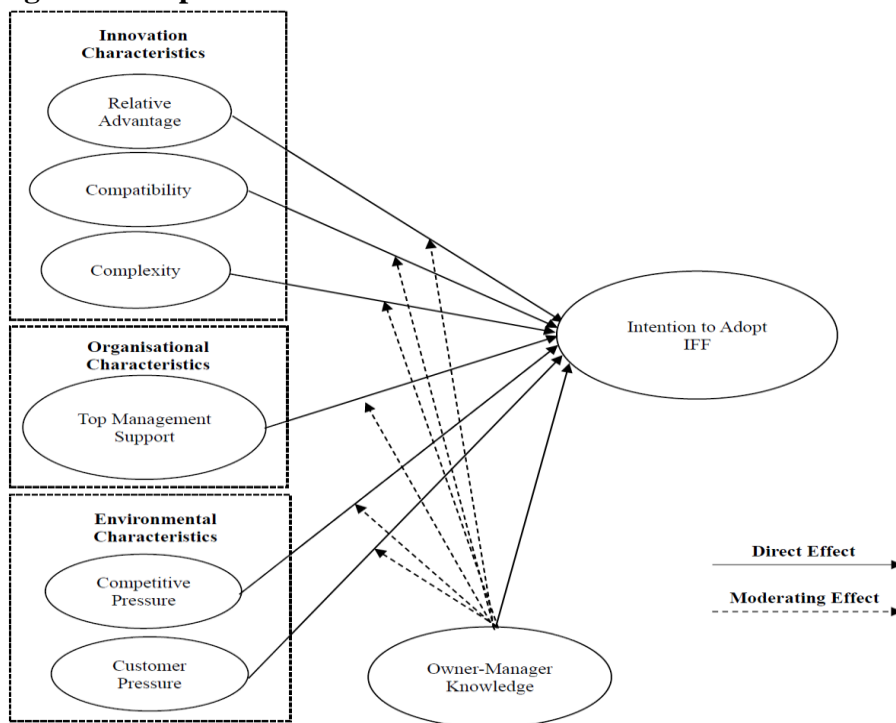
H11: Owner-manager knowledge moderates the relationship between top management support and intention to adopt IFF

H12: Owner-manager knowledge moderates the relationship between competitive pressure and intention to adopt IFF

H13: Owner-manager knowledge moderates the relationship between customer pressure and intention to adopt IFF

Figure 2 illustrates the proposed research model adopted in this study.

Figure 2: Proposed Research Model



Source: Authors' own

METHODOLOGY

Sample and Data Collection

Malaysian halal-certificate companies are the population of this study. This study uses simple random sampling to target owner-managers of halal-certified companies that participated in the Malaysia Halal Expo (MHE), Penang International Halal Expo (PIHEC) and Malaysian International Halal Showcase (MIHAS). The questionnaire was administered in 2019 during three events: MHE from 24 to 26 January, PIHEC from 1 to 3 March, and MIHAS from 3 to 6 May. Data collection involved conducting a questionnaire survey. Two hundred fifty-two people agreed to answer the 322 questionnaires that were handed out during the events. However, due to

their hectic schedules, 15 respondents did not complete the questionnaires. Therefore, 237 sets of questionnaires were used for data analysis after sorting.

Table 2 shows the profile of halal-certified companies. About 48.1 per cent of the companies have more than ten years of operating experience. In addition, 30 per cent of the companies have been registered with Malaysian halal certificate for more than ten years. About 80.6 per cent were small enterprises. In addition, more than 70 per cent of the companies were in the food product/beverages/food supplement sector.

Table 2: Company Profiles

Items	Frequency	Percentile (%)
Operational Age		
<3 years	35	14.8
3–5 years	56	23.6
6–10 years	32	13.5
>10 years	114	48.1
Total	237	100
Age of Halal Certification		
<3years	60	25.3
3–5 years	66	27.8
6–10 years	40	16.9
>10 years	71	30.0
Total	237	100
Number of Employees		
<5 employees	43	18.1
6–75 employees	158	66.7
75–200 employees	33	13.9
>200 employees	3	1.3
Total	237	100
Halal Sectors		
Consumer goods	10	4.2
Pharmaceutical	5	2.1
Cosmetic and personal care	6	2.5
Logistic	1	0.4
Food premise	49	20.7
Food product/Beverages/Food supplement	166	70
Total	237	100

Source: Authors' own

Measurement

The questionnaire was made up of two sections. The company's demographic information was gathered in Section A which includes operational age, age of halal certification, number of employees and halal sectors. The variables were presented in Section B, which were measured through a Likert-scale question varying between '5 = strongly agree' to '1= strongly disagree'. The items of the questionnaire of this study were adapted from previous studies (Shimp & Kanvas, 1984; Moore & Benbasat, 1991; Grover, 1993; Premkumar & Roberts, 1999; Wu *et al.*, 2003; Soliman & Janz, 2004; Al-Qirim, 2005; Son & Benbasat, 2007; Elliot & Boshoff, 2007; Sophonthummapharn, 2009; Wang *et al.*, 2010; Amin *et al.*, 2011; Yoon & George, 2013;

Oliveira *et al.*, 2014; Safari *et al.*, 2015; Kung *et al.*, 2015; Maduku *et al.*, 2016; AlBar & Hoque, 2017).

RESULTS

Assessment of the Measurement Model

In order to assess the measurement model, items loading, reliability and validity analyses were conducted. **Table 3** shows that all the items' loadings fulfilled the criteria requirements except relative advantage², compatibility⁴, complexity³, owner-manager⁴ and competitive pressure³. Ramayah *et al.* (2018) supported that the items loading below 0.708 can be preserved if the minimum of average variance extracted (AVE) of 0.5 is met. Therefore, the four items are appropriate since the AVE is above 0.5. For convergent validity, this study adopted Dijkstra-Henseler's rho (rhoA) because Ringle *et al.* (2017) stated that rhoA gives a more precise indication of data consistency than Cronbach's alpha and composite reliability. The results in **Table 3** indicate that all the constructs have rhoA values over 0.70, suggesting that they have enough internal consistency. Additionally, the AVE values exceed 0.50, indicating that the convergent validity met the criteria of Henseler *et al.* (2016) and Henseler (2017).

This study deployed the heterotrait-monotrait correlation ratio (HTMT) (Henseler *et al.*, 2015) since this analysis has a high sensitivity and can detect issues with discriminant validity (Ab Hamid *et al.*, 2017) compared to the Fornell-Larcker criteria (Fornell & Larcker, 1981) and cross loadings (Chin, 1998). **Table 4** shows that all scores are in accordance with the HTMT.90 (Gold *et al.*, 2001) and HTMT.85 (Kline, 2011).

Assessment of the Structural Model

The path coefficients of four direct effects in **Table 5** exhibit a t-value > 1.645, which is significant at the level 0.05. Relative advantage ($\beta = 0.097$; $p < 0.05$), top management support ($\beta = 0.643$; $p < 0.05$), owner-manager knowledge ($\beta = 0.120$; $p < 0.05$) and competitive pressure ($\beta = 0.095$; $p < 0.05$) are all positive and significant for intention to adopt IFF. Thus, H1, H4, H5 and H6 are supported. The R^2 value of this study is 0.578, indicating that the model used in this study is adequate.

Assessment of the Moderating Test

Owner-manager knowledge is a moderator for all hypothetical relationships given in the path model. For this study, six latent interaction constructs were developed to reflect the relationship between owner-manager knowledge and all mentioned relationships.

The result indicated that the relationship between complexity and the intention to adopt IFF was shown to be negatively moderated by owner-manager knowledge ($\beta = -0.999$, $p < 0.05$). Thus, H10 is accepted. **Figure 3** shows that when the owner-manager has a high level of IFF knowledge, the intention to adopt IFF is not strongly correlated with complexity. Also, the moderator effect of owner-manager knowledge between the relationship of top management support and the intention to adopt IFF is negative and significant ($\beta = -0.108$, $p < 0.05$). Thus, H11 is accepted. **Figure 4** shows that when owner-manager possesses a high level of IFF knowledge, the intention to adopt IFF is not strongly correlated with top management support.

Table 3: Results of the Assessment of the Measurement Model

Constructs	Loadings	rhoA	AVE
Intention to adopt			
We intend to adopt IFF.	0.890	0.867	0.690
It is likely that our company will take some steps to adopt IFF in the future.	0.753		
We have a firm intention to adopt IFF in our company.	0.880		
We will definitely recommend IFF to other companies.	0.791		
Relative advantage			
IFF enhance the corporate image.	0.735	0.764	0.537
IFF increase the profitability of the company.	0.666		
IFF are useful to expand our market.	0.712		
IFF help to reduce overall cost.	0.810		
Compatibility			
We believe that IFF are compatible with the existing financial infrastructure.	0.790	0.819	0.607
We believe that IFF are fully compatible with our business strategy.	0.841		
We believe that IFF are compatible with our company's corporate culture and value system.	0.830		
We believe that IFF are compatible with the corporate work style.	0.640		
Complexity			
We believe that the process for IFF is a complex one.	0.794	0.800	0.594
Integrating IFF in our current workflows will be difficult.	0.820		
We expect that the use of IFF will be complicated for us to learn.	0.694		
The use of IFF is frustrating.	0.786		
Top Management Support			
Top management enthusiastically supports the adoption of IFF.	0.821	0.846	0.592
Top management is aware of the benefits of IFF.	0.744		
Top management is willing to take risks associated with the adoption of IFF.	0.827		
Top management is likely to be interested in the adoption of IFF to gain competitive advantage.	0.711		
Top management likely views the adoption of IFF as strategically important.	0.736		
Owner-Manager Knowledge			
We have sufficient knowledge of IFF.	0.811	0.824	0.584
We understand the issues related to IFF.	0.787		
We have sufficient knowledge of the differences between conventional financing facilities and IFF.	0.754		
We are familiar with IFF.	0.686		
We have experience in using IFF.	0.778		
Competitive Pressure			
Our main competitors that have adopted IFF have benefited greatly.	0.879	0.811	0.634
Our main competitors that have adopted IFF are perceived favourably by other companies in the same industry.	0.871		
Our decision to adopt IFF would be strongly influenced by what competitors in the industry are doing.	0.608		
Customer Pressure			
Many of our customers would expect our company to adopt IFF.	0.810	0.830	0.613
Our customers will view us as forward-looking if we adopt IFF.	0.767		
Our company needs to maintain good relationships with our key customers who have adopted IFF.	0.736		
Our key customers who have adopted IFF are the largest customers in the industry.	0.816		

Source: Authors' own

Table 4: Heterotrait-Monotrait Ratio (HTMT) Results

	Intention to Adopt	Compatibility	Complexity	Competitive Pressure	Customer Pressure	Owner-Manager Knowledge	Relative Advantage
Intention to Adopt							
Compatibility	0.467						
Complexity	0.393	0.273					
Competitive Pressure	0.395	0.263	0.448				
Customer Pressure	0.280	0.349	0.375	0.661			
Owner-Manager Knowledge	0.447	0.438	0.280	0.249	0.195		
Relative Advantage	0.410	0.214	0.229	0.254	0.204	0.364	
Top Management Support	0.824	0.625	0.463	0.441	0.430	0.398	0.359

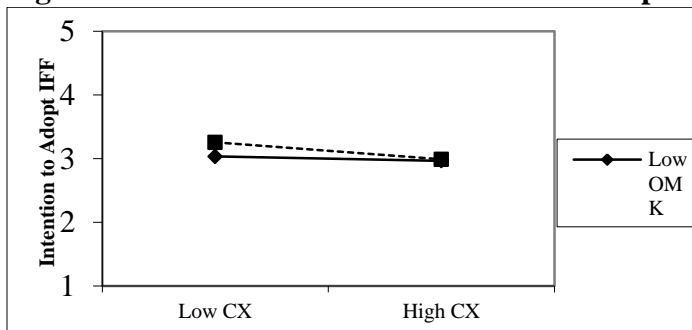
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Table 5: Direct Effect of Hypotheses Results

Casual Path	Hypothesis	Path Coefficients	t-value	Supported
Relative Advantage → Intention to Adopt	H1	0.097	1.999	Yes
Compatibility → Intention to Adopt	H2	0.003	0.053	No
Complexity → Intention to Adopt	H3	-0.034	0.676	No
Top Management Support → Intention to Adopt	H4	0.643	10.994	Yes
Owner-Manager Knowledge → Intention to Adopt	H5	0.120	2.682	Yes
Competitive Pressure → Intention to Adopt	H6	0.095	1.946	Yes
Customer Pressure → Intention to Adopt	H7	-0.080	1.484	No

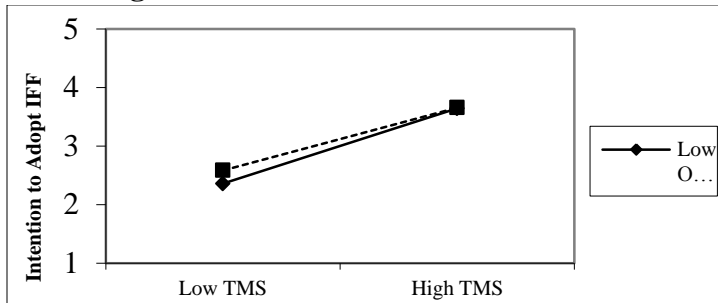
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Figure 3: The Interaction Effect Between Complexity and Owner-Manager Knowledge



Source: Authors' own

Figure 4: The Interaction Effect Between Top Management Support and Owner-Manager Knowledge



Source: Authors' own

The R^2 change takes on significance in moderation analysis. Previously, the main effects model's R^2 was 0.578, while the interaction model's R^2 was 0.601. This shows that the R^2 changes by 5.8 per cent with the addition of the interaction effect (additional variance). Therefore, the effect size (f^2) of this study represents a small effect according to Cohen (1988). However, Chin *et al.* (2003) supported that the small effect size is also important for evaluating the effect of the interaction term.

DISCUSSION

The results of this study are discussed in four separate categories: innovation, organisation, environment, and owner-manager knowledge as a moderator.

For innovation characteristics, relative advantage was a positive significant influence on the intention to adopt IFF among halal-certified companies in Malaysia. This finding is supported by Pateli *et al.* (2020), Malik *et al.* (2021) and Ngah *et al.* (2022), which discovered the positive significant influence of relative advantage on innovation adoption. However, one of main differences between this study and prior studies is the innovation adoption context. This study highlighted on the benefits that halal-certified companies gain from adopting IFF over conventional loans. The survey data confirmed that halal-certified companies are aware of the following benefits of IFF: improving company's image, increasing the company's profitability, expanding market share, and reducing costs. Hence, this study expands the scope of the body of knowledge about the relative advantages of IFF adoption in organisational perspectives.

Regarding the influence of compatibility, this study found that compatibility was not a significant influencing factor on the intention to adopt IFF among halal-certified companies in Malaysia. The findings are consistent with several studies that found an insignificant role of compatibility in adoption (e.g., Skafi *et al.*, 2020; Ahmed *et al.*, 2022; Parvand & Rasiah, 2022). One possible explanation could be that the owner-managers of halal-certified companies are less concerned about how IFF align with their practices.

Complexity also has no impact on Malaysian halal-certified companies' intention to adopt IFF. This result is in contrast to Skafi *et al.* (2020), Sayginer and Ercan (2020), Owusu (2020) and Malik *et al.* (2021), who found a significant negative relationship between complexity and intention to innovate. A plausible reason for this is that respondents are not familiar with the process of IFF. Although halal-certified companies are aware of the relative advantage of IFF,

knowledge of the IFF procedure is still limited. Moreover, the lack of product expertise among Islamic banks' employees (Shamsudheen & Chowdhury, 2022) may affect the halal-certified companies' interest in IFF. In terms of organisational characteristics, the findings indicate that top management support is a positively significant influence on the intention to adopt IFF among Malaysian halal-certified companies. This result is consistent with the study of Asiaei and Rahim (2019), Pateli *et al.* (2020), Sayginer and Ercan (2020), and Skafi *et al.* (2020) in terms of confirming the hypothesis, but this study is different from the previous studies as it has a much higher predictive power and is new in the context of IFF adoption. Top management support is the most significant predictor of adoption of IFF, as it has a higher t-value ($t = 10.944$) compared to the other factors.

Moreover, empirical findings are consistent with the notion that owner-manager knowledge is essential for the adoption of IFF. The outcome demonstrates a favourable correlation between owner-manager knowledge and the ambition of Malaysian halal-certified companies to adopt IFF. These findings are supported by Balushi *et al.* (2019), Awang *et al.* (2020) and Zaib *et al.* (2021), who found that owner-manager knowledge is important for the adoption of IFF. However, these results differ from other studies in terms of the method and measurement used in this study. For example, Balushi *et al.* (2019) conducted a non-parametric modelling of Kruskal-Wallis one-way ANOVA to test the level of awareness of SMEs' owner-managers in Muscat, Oman. With regard to environmental characteristics, competitive pressure has a substantial and positive influence on the intention to adopt IFF among halal-certified companies in Malaysia. The findings are supported by previous studies such as Usman *et al.* (2019), Owusu (2020) and Sun *et al.* (2020). The explanation for the significant impact of competitive pressure on the intention to adopt IFF may be that competitors benefit from Islamic banks' programmes. For example, CIMB Islamic offered RM100 million in financing through CIMB HalalBizReady (May, 2019); Alliance Islamic Bank offered RM400 million in financing to help SMEs in the halal sector (Business Today, 2022); and HSBC Amanah partnered with and supported the Halal Development Centre (HDC) to help grow the halal export market (The Sun Daily, 2022). As a result, halal-certified companies are being pressured by their competitors to succeed.

In contrast, customer pressure is an insignificant influence on the intention to adopt IFF among halal-certified companies in Malaysia. Previous studies such as Chen *et al.* (2019), Okyere-Kwakye & Nor (2021) and Abbasi *et al.* (2022) supported the results of this study. The result proves that halal-certified companies do not feel pressured by their customers to adopt IFF. One of the plausible reasons could be that IFF has not been used as a benchmark for financial activities of halal-certified companies. According to the Manual Prosedur Pensijilan Halal Malaysia (Malaysia Halal Certification Procedure Manual) (third revision), a company is not required to adopt IFF for its activities.

Based on the role of moderator of owner-manager knowledge as a moderator variable, the findings of the interaction test show that the relationship between complexity and the intention to adopt IFF is negatively and considerably moderated by owner-manager knowledge. It is important to note that halal-certified companies whose owner-managers have knowledge of IFF believe that IFF is a complex process that is difficult to integrate into current workflows, that it is complicated to learn, and that it is frustrating to use IFF. However, owner-manager knowledge

could play a key role in increasing the value of IFF. Therefore, owner-manager knowledge moderates the relationship between complexity and the intention to adopt IFF.

In addition, owner-manager knowledge also moderates the negative and substantial correlation between top management support and intention to adopt IFF in halal-certified companies in Malaysia. The explanation for this result is that the owner-manager with high knowledge of IFF is better able to adopt IFF. This exciting result could be due to the fact that owner-managers with high knowledge about IFF do not need support from top management to adopt IFF. According to Elbeltagi *et al.* (2013), the owner-manager has the power to make long-term planning decisions and is able to participate in innovative decisions. Therefore, owner-manager knowledge moderates the relationship between top management support and the intention to adopt IFF.

CONCLUSION

The purpose of this study was to investigate the IOE characteristics and the intention to adopt IFF in Malaysian halal-certified companies. The TOE framework and DOI theory served as the foundation of this investigation. This study also aimed to investigate the moderating impact of owner-manager knowledge on the relationship between IOE characteristics and intention to adopt IFF.

The findings of this study empirically supported six hypotheses, including four direct relationships and two indirect relationships, with owner-manager knowledge as a moderator. Relative advantage, top management support, owner-manager knowledge and competitive pressure were found to be positively significant on the intention to adopt IFF. While, owner-manager knowledge moderated the relationship between complexity and top management support on the intention to adopt IFF. As such, the research model explained 57.8 per cent and the interaction model explained 60.1 per cent in the study.

This study is important for advancing current knowledge in theory and practice. In terms of theoretical contributions, this study adds value to the existing research on the adoption of IFF by investigating the organisational level. The role of owner-manager knowledge as a moderator can contribute to the advancement of literature on the adoption of innovation within organisations. In terms of practical implications, this study offers valuable insights for Islamic financial institutions to customise marketing strategies and tailor product development to better meet the needs of halal-certified companies. For halal-certified companies, the findings enable owner-managers to develop strategic positions and sustain their competitiveness in the market.

The study has two major limitations, and these limitations offer recommendations for future studies in this field. Firstly, the data analysis is based on cross-sectional design, which cannot provide empirical evidence to support causal inferences. Secondly, majority of the respondents are from the food/beverage/food supplement sector. Therefore, future studies should apply the longitudinal approach to investigate IFF adoption in another halal sector. Furthermore, since there are many programmes initiated by Islamic banks to support the halal industry, this study suggests that future studies consider the role of Islamic banks as a moderating factor.

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DECLARATION

Credit Authorship Contribution Statement

- Hazalina Mat Soha: Conceptualization; Data collection; First draft writing.
- Mohd Zukime Mat Junoh: Supervision; Methodology; Data analysis.
- Tunku Salha Tunku Ahmad: Supervision; Editing.
- Md. Aminul Islam: Supervision; Interpretation of output; Review and editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interest or personal relationships that could have influenced the research work.

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None

Data Availability

Data will be made available on request.

Appendix

None

INVESTIGATING EQUITY-BASED FINANCING AND DEBT-BASED FINANCING IN ISLAMIC BANKS IN INDONESIA

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ABSTRACT

Purpose — This study empirically examines whether equity-based financing (EBF) generates fixed income similar to debt-based financing (DBF) in the context of Islamic banks in Indonesia. It also investigates whether the Islamic bank financing return rate (IBFRR) has a relationship with the conventional bank lending interest rate (CBLIR).

Design/Methodology/Approach — This paper uses monthly data for the period 2009–2019 and produces 132 units of analysis. The object of the study is Islamic banks (IBs) and conventional banks (CBs) in Indonesia. The study uses the Vector Error Correction Model (VECM) as the tool of analysis.

Findings — This study provides evidence that, contrary to DBF products, EBF does not have fixed income. EBF in Indonesian IBs has been executed according to the requirements of Islamic law. The study also finds that CBLIR is not correlated with IBFRR.

Originality/Value — This is the first study to correlate equity-based financing return rate (EBFRR) with debt-based financing return rate (DBFRR). This paper also examines the no-causality relationship between CBLIR and IBFRR.

Research Limitations — This study uses Islamic banking data in the aggregate. Therefore, it cannot explain whether research results differ between banks.

Practical Implications — EBF in Indonesian IBs has been applied according to its epistemology. However, the significant increase in *mushārah* financing noted over the study period should be followed by a careful customer business feasibility analysis.

Keywords — Conventional bank lending interest rate (CBLIR); Debt-based financing (DBF); Debt-based financing return rate (DBFRR); Equity-based financing (EBF); Equity-based financing return rate (EBFRR); Fixed income; Interest rate; Islamic bank financing return rate (IBFRR); Non-performing loan (NPL)

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INTRODUCTION

Islamic law forbids interest as it is considered unjust, a condition that requires penance and undermines brotherhood. It is also contrary to the values of Islamic spirituality. Therefore, Islamic banks (IBs) have been established to fulfil the demand for interest-free banking services (Šeho *et al.*, 2020).

IBs promote profit-and-loss sharing (PLS) transactions that can be implemented on savings and deposit products, known as Investment Account Holders funds (IAHs), and through financing products such as *muḍārabah* and *mushārah* financing, hereinafter called equity-based financing (EBF) (AlShattarat & Atmeh, 2016). Under savings and deposit accounts, structured using PLS modes, the bank will share its revenue with customers depending on the revenue earned. Similarly, when banks apply PLS in financing products, the customers' business performance will influence the profit-sharing paid by customers to the bank. In other words, there is no guarantee that the bank will obtain a fixed income (Warninda *et al.*, 2019). Banks can also receive losses if the businesses run by the customers incur losses. With these characteristics, equity-based financing (EBF) is considered to be in harmony with the principles of Islamic law (Abdul-Rahman *et al.*, 2014). These are also the main differentiators between IBs and conventional banks (CBs) (Chong & Liu, 2009; Salman & Nawaz, 2018).

Past literature highlighted that the global Islamic banking industry has EBF ratios which are less dominant than debt-based financing (DBF) ratios (Mills & Presley, 1999; Siddiqui, 2008; Anisykurlillah *et al.*, 2018; Warninda *et al.*, 2019; Miah & Suzuki, 2020). Data on the EBF ratio of the global Islamic banking industry are depicted in **Table 1**. Low EBF ratios also occur in the Indonesian Islamic banking industry, as indicated in **Table 2**.

Table 1: EBF

Region	<i>Muḍārabah</i> (%)	<i>Mushārah</i> (%)	Total (%)
Middle East	3.35	2.94	6.29
South Asia	0.58	34.88	35.46
Southeast Asia	3.51	11.23	14.74

Source: Warninda *et al.* (2019)

Table 2: EBF in Indonesia

Financing	2006	2007	2008	2009	2010	2011	2012	2013	2014	2014	2015	2016	2017	2018	2019	Mean
EBF ratio (%)	31.29	35.73	35.65	36.28	34.11	28.43	26.91	29.06	31.98	32.23	35.76	38.04	42.68	45.62	48.22	35.46
DBF ratio (%)	68.71	64.27	64.35	63.72	65.89	71.57	73.09	70.94	68.02	67.77	64.24	61.96	57.32	54.38	51.78	64.54
Increase in EBF ratio (Δ)	27.37	56.08	36.38	24.91	36.72	25.52	35.97	34.79	19.14	1.23	18.58	23.83	26.33	22.45	16.85	27.08
Increase in DBF ratio (Δ)	37.59	27.85	36.85	21.56	50.37	63.53	46.76	21.15	3.80	0.05	1.34	12.26	4.17	8.68	5.25	22.75

Source: Islamic Banking Statistics (2019)

Table 2 shows that the Indonesian Islamic banking industry had an average EBF ratio of 35.46 per cent during the observation years. Therefore, the DBF ratio of 64.54 per cent is greater than the EBF ratio. Although this is the case, EBF has had a greater average growth (27.08 per cent) than DBF (22.75 per cent), as seen from rows 3 and 4 in **Table 2**. This may indicate that the

weaknesses that exist under EBF—such as asymmetric information resulting in adverse selection problems and moral hazards—are diminishing (Azmat *et al.*, 2015). It may also show that the sharing of risk among banks and entrepreneurs in EBF contracts is reducing. It is suspected that the certainty about the acquisition of return on EBF is similar to that on DBF. This proposition is built based on the study by Hidayah *et al.* (2019), which states that IBs attempted to translate PLS transactions according to local market preferences by trying to provide a steady income and transfer risk from the banks to the entrepreneurs. This finding leads to the suspicion that PLS practices are not in line with PLS ontology and may thus result in non-interest-free practices (Ergeç & Arslan, 2013; Mahmood & Rahman, 2017).

This study evaluates the implementation of EBF in Indonesia and examines whether EBF generates income similar to DBF and whether the equivalent rate of Islamic bank financing return rate (IBFRR) and conventional bank lending interest rate (CBLIR) are correlated. Previous studies have tested more on the correlation of interest rate with Islamic banks' return rate. However, previous studies, such as those conducted by Chong and Liu (2009), Yusof *et al.* (2015), Hamza (2016) and Yuksel (2017), are limited to investment account holders (IAH) products. We found Khalidin and Masbar (2017) and Šeho *et al.* (2020) to be the only studies investigating whether IBFRR is interest-free. This study extends the studies of Khalidin and Masbar (2017) and Šeho *et al.* (2020) by comparing IBFRR with the interest rate and comparing the equity-based financing return rate (EBFRR) and the debt-based financing return rate (DBFRR). Additionally, this study also examines the relationship between the return from EBFRR and CBLIR, as it has been debated by researchers such as Mahmood and Rahman (2017) and Korkut and Özgür (2017).

This paper first focuses on whether EBF, like DBF, has a fixed return. Second, it examines whether CBLIR influences the EBFRR. The results are presented by describing the EBFRR, DBFRR, IBFRR and CBLIR. Next, a causality test is conducted between the EBFRR and DBFRR. This study also examines the causality from the IBFRR to CBLIR.

THEORETICAL REVIEW AND HYPOTHESIS DEVELOPMENT

Financing at Islamic Banks

IBs act as intermediaries between customers with excess money and those who need money. Unlike CBs, IBs will collect money from third parties using a profit-sharing contract (savings and deposits) or *wadī'ah* (demand deposits). Funds raised by banks are distributed among different modes of financing, such as *muḍārabah*, *mushārahah*, *murābahah*, *salam*, *istiṣnā'* and *ijārah* financing.

Muḍārabah and *mushārahah* financing uses the EBF modes. Under *muḍārabah* transactions, banks provide capital to customers (entrepreneurs/debtors). Further, the financial losses of the customers are fully borne by banks. However, the customer is responsible if he incurs a loss following any transgression or negligence (Warninda *et al.*, 2019). If both the bank and the customer contribute capital in a business, the transaction is known as *mushārahah*, and the business loss is divided between the two parties based on the share of capital ownership.

In contrast with *muḍārabah* and *mushārahah*, financing transactions under *murābahah*, *salam*, *istiṣnā'* and *ijārah* do not transfer the risk of loss from the customer to the bank. *Murābahah*, *salam* and *istiṣnā'* transactions are sale and purchase transactions. Moreover, banks

as sellers are entitled to receive income on the difference between the selling price and the purchase price. *Ijārah* transactions are leases of assets. As the owner of the assets, the bank is therefore entitled to receive rental income from this transaction. Therefore, under *murābahah*, *salam* and *istiṣnā'* transactions, banks are entitled to receive fixed incomes and there is no risk transfer for business losses faced by customers (Alam & Parinduri, 2017; Suzuki *et al.*, 2019; Warninda *et al.*, 2019).

As such, EBF transactions are riskier than other transactions. Abusharbeh (2014) and Mukhibad and Khafid (2018) found a relationship between EBF and non-performing financing (NPF). Mukhibad *et al.* (2023), using data from 54 banks from 19 countries, found that EBF has a positive effect on NPF. Belkhaoui *et al.* (2020) report that a higher level of participation in *muḍārabah* and *mushārah* financing will generate high credit risk for banks in the Gulf Cooperation Council (GCC). One of the risks of EBF arises when the borrower does not allow the bank to track the earned income so that the bank cannot ensure a fair process for revenue sharing (Sapuan *et al.*, 2016; Warninda *et al.*, 2019). Previous studies have identified problems arising under PLS, such as agency problems (Dar & Presley, 2000), information asymmetry (Muda & Ismail, 2010; Warninda *et al.*, 2019), moral hazard (Mahmood & Rahman, 2017), and high monitoring costs (Abdul-Rahman *et al.*, 2014; Hidayah *et al.*, 2019).

Implementation of PLS Transactions

The rapid development of IBs has encouraged researchers to evaluate whether their approach is interest-free. Researchers have examined whether the practice of PLS products is in line with the fundamental concept of interest-free banking under Islamic law. PLS aligns with the basic principle of Islamic finance, which states that there is no income without risk-bearing (Mahmood & Rahman, 2017). Interest is deemed an unfair transaction because the profits are realised without sharing risk (Rosly & Bakar, 2003; Belal *et al.*, 2015). The argument reflects the Islamic legal principle that loss is commensurate with return and earning is commensurate with liability (Šeho *et al.*, 2020).

Researchers investigating the implementation of PLS transactions in IBs have produced mixed findings. Chong and Liu (2009) found that EBF implementation was deficient and that IBs' deposits were not interest-free. IBs are more inclined to use DBF, which is another acceptable mode of financing in Islamic law, and ignore other modes of financing for avoiding interest (Chong & Liu, 2009). This finding is strengthened by the research of Hamza (2016) and Šeho *et al.* (2020). Hamza (2016) found that the ratio of capital and interest rates are two factors that positively affect the return on deposits of IBs. Interest rates determine the returns on deposits of IBs. Šeho *et al.* (2020) found that the equity-based financing return rate (EBFRR) is positively correlated with interest rates. Additionally, sales-based contracts and leases continue to dominate IBs' financing (Šeho *et al.*, 2020).

Different findings are presented by Yusof *et al.* (2015) and Yuksel (2017). Yusof *et al.* (2015) found no relationship that prevails between PLS rates and interest rates in the long run. In the short term, the study found that there is a relationship between PLS equivalent rates and CBs' interest rates, except in the case of IBs located in Saudi Arabia. Yuksel (2017) found that PLS transactions of IBs are not related to CBs. This finding indicates that determination of the PLS

equivalent rate in IBs does not use interest rate benchmarks. Similarly, determination of the interest rate also does not use PLS return benchmarks.

Hidayah *et al.* (2019) carried out a different research approach to explore the application of PLS in IBs, notably using a qualitative approach. The study by Hidayah *et al.* (2019) involved 40 participants consisting of managers, advisors, Sharī'ah compliance officers, Sharī'ah board members and regulators from Oman, Abu Dhabi, the United Kingdom (UK), Malaysia and Indonesia. They found that the products structured using PLS were repackaged to replicate conventional finance products. The offering of PLS products was aimed at meeting the spiritual needs of customers who sought to comply with Sharī'ah requirements. Nonetheless, the practice of PLS faced constraints such as market competition, which forced IBs to harmonise the interests of various stakeholders to be able to compete. One participant even revealed a bank's attempt to make a fixed return on EBF and further transfer the risk of loss from the bank to the entrepreneur (Alaabed & Masih, 2016; Hidayah *et al.*, 2019).

Hypothesis Development

Previous studies have produced mixed findings in presenting evidence of PLS transactions in IBs, leading to debates among researchers (Mahmood & Rahman, 2017). First, there are indications that it is difficult to practise EBF according to its epistemology (i.e., sharing of profit and loss between partners). The actual practice of EBF transactions is found to differ from its ideal application and instead be the result of the bank trying to replicate conventional financial products so that EBF generates fixed income and transfers risks from the bank to customers. Warninda *et al.* (2019) also show that EBF transactions pose a problem of uncertain return as the distribution of return is based on the realisation of the customer's business profit. Thus, the structuring of EBF similar to DBF results in fixed income and in the transfer of risk similar to the case of DBF (Alaabed & Masih, 2016; Warninda *et al.*, 2019).

EBF products that tend to generate fixed incomes are structured as *mushārahah mutanāqīshah* (diminishing partnership) (Kashi & Mohamad, 2017). The *mushārahah mutanāqīshah* contract is a *mushārahah* agreement combined with buying and selling (Fatwa DSN-MUI/XI/2008). A *mushārahah mutanāqīshah* contract can also be a hybrid contract that combines three concepts: *mushārahah*, *ijārah* (lease) and *wa'd thumma bay'* (promise followed by a sale) (Ahroum *et al.*, 2020). The lease contract used under *mushārahah mutanāqīshah* generates the fixed rental fee, which is shared between the customer and the bank based on their respective share of ownership in the underlying asset.

Kashi and Mohamad (2017) state that the *mushārahah mutanāqīshah* contract is controversial due to the question regarding whether it includes a partnership transaction or is more likely to resemble conventional loans. Kashi and Mohamad (2017) found that *mushārahah mutanāqīshah* financing is more inclined towards debt contracts than partnerships. According to Hosen (2009), the application of the *mushārahah mutanāqīshah* scheme is beneficial to banks just as much as, or more than, *murābahah* financing. Based on the above discussion, therefore, it can be said that there is an a priori link between EBF and DBF, and thus the following hypothesis is formulated:

H1: There is a causality between the equity-based financing return rate (EBFRR) and the debt-based financing return rate (DBFRR).

The other factor that distinguishes EBF from DBF is credit risk. Abusharbeh (2014) and Mukhibad and Khafid (2018), using a sample of IBs in Indonesia, found a positive relationship between the EBF ratio and non-performing financing (NPF), where an increase in EBF causes an increase in NPF. IBs in Indonesia prefer to use DBF to better control bank risks (Abusharbeh, 2014). Grassa (2012), using a sample of IBs in the GCC countries, concluded that greater revenue sharing leads to higher levels of risk for IBs. Thus, IBs with high EBF tend to have higher credit risks (Khan & Ahmed, 2001; Ariffin *et al.*, 2009; Misman *et al.*, 2020). In addition, the high credit risk in EBF may be due to agency problems (Dar & Presley, 2000; Beck *et al.*, 2013); information asymmetry (Muda & Ismail, 2010; Warninda *et al.*, 2019); and moral hazard (Mahmood & Rahman, 2017).

On the contrary, other literature argues that EBF can reduce credit risk (Chong & Liu, 2009; Zeineb & Mensi, 2014; Warninda *et al.*, 2019). EBF requires IBs to perform stricter due diligence and supervision of their financing. To avoid moral hazard and adverse selection issues, IBs would evaluate entrepreneurs' eligibility strictly so that credit risk can be reduced (Warninda *et al.*, 2019).

In accordance with the purpose of this study to empirically examine whether EBF is similar to DBF, the following hypothesis is proposed:

H2: There is a causality between the equity-based financing risk (EBFRISK) and debt-based financing risk (DBFRISK).

The findings of previous studies have shown that EBF has not been practised according to its rules. They also concluded that EBF is not free from interest. Ideally, profit-sharing in EBF contracts should be based on real performance rather than interest. However, the tests carried out by Chong and Liu (2009), Hamza (2016) and Šeho *et al.* (2020) show that the EBFRR is related to CBLIR.

Additionally, Yusof *et al.* (2015) and Yuksel (2017) found no relationship between the IBFRR and CBLIR. Yusof *et al.* (2015) even rejected the conclusion that IBs are not interest-free simply because of the finding that the deposit return rate (IAH return rate) is correlated with the interest rate. According to Yusof *et al.* (2015), the profit shared by a bank with the IAHs is derived from EBFRR, where EBFRR is influenced by the opportunity cost of capital or the real rate of economic growth. This is one of the main determinants of interest rates in the economy. Yusof *et al.* (2015) stated that the return on investment of IBs in the form of EBF is assumed to be influenced by economic conditions. Further, these economic conditions are indicators for the determination interest rates. This assumption is reinforced by Zarrouk *et al.* (2016), who found that IBs perform better in an environment where gross domestic product (GDP) and investments are high. Based on this analogy, it is clear that the EBFRR can be related to CBLIR. Therefore, the next hypotheses proposed in this study are:

H3: There is a causality between the equity-based financing return rate (EBFRR) and the conventional bank lending interest rate (CBLIR).

H4: There is a causality between the Islamic bank financing return rate (IBFRR) and the conventional bank lending interest rate (CBLIR).

RESEARCH MODEL

This study empirically examines causality between certain variables using time series data. The causality variables are:

1. Equity-based financing return rate (EBFRR) and debt-based financing return rate (DBFRR)
2. Equity-based financing risk (EBFRISK) and debt-based financing risk (DBFRISK)
3. Equity-based financing return rate (EBFRR) and conventional bank lending interest rate (CBLIR)
4. Islamic bank financing return rate (IBFRR) and conventional bank lending interest rate (CBLIR).

It uses IBs and CBs in Indonesia and monthly data observations from 2005 to 2019, producing 132 units of analysis. The study uses the Islamic banking statistics and Indonesia banking statistics issued by the Financial Services Authority (OJK) as the data source.

The data in this study were time-series data and were processed using the Vector Error Correction Model (VECM), which can be written as follows:

$$\Delta EBFRR_t = a_1 \sum_{i=1}^k \beta_{1i} \Delta EBFRR_{t-i} + \sum_{i=1}^k \theta_{1i} \Delta DBFRR_{t-i} + \delta_1 \gamma_{t-1} + \varepsilon_1 \quad (1)$$

$$\Delta DBFRR_t = a_1 \sum_{i=1}^k \beta_{1i} \Delta DBFRR_{t-i} + \sum_{i=1}^k \theta_{1i} \Delta EBFRR_{t-i} + \delta_1 \gamma_{t-1} + \varepsilon_1 \quad (2)$$

$$\Delta EBFRR_t = a_1 \sum_{i=1}^k \beta_{1i} \Delta EBFRR_{t-i} + \sum_{i=1}^k \theta_{1i} \Delta DBFRISK_{t-i} + \delta_1 \gamma_{t-1} + \varepsilon_1 \quad (3)$$

$$\Delta DBFRISK_t = a_1 \sum_{i=1}^k \beta_{1i} \Delta DBFRISK_{t-i} + \sum_{i=1}^k \theta_{1i} \Delta EBFRR_{t-i} + \delta_1 \gamma_{t-1} + \varepsilon_1 \quad (4)$$

$$\Delta EBFRR_t = a_1 \sum_{i=1}^k \beta_{1i} \Delta EBFRR_{t-i} + \sum_{i=1}^k \theta_{1i} \Delta CBLIR_{t-i} + \delta_1 \gamma_{t-1} + \varepsilon_1 \quad (5)$$

$$\Delta CBLIR_t = a_1 \sum_{i=1}^k \beta_{1i} \Delta CBLIR_{t-i} + \sum_{i=1}^k \theta_{1i} \Delta EBFRR_{t-i} + \delta_1 \gamma_{t-1} + \varepsilon_1 \quad (6)$$

$$\Delta IBFRR_t = a_1 \sum_{i=1}^k \beta_{1i} \Delta IBFRR_{t-i} + \sum_{i=1}^k \theta_{1i} \Delta CBLIR_{t-i} + \delta_1 \gamma_{t-1} + \varepsilon_1 \quad (7)$$

$$\Delta CBLIR_t = a_1 \sum_{i=1}^k \beta_{1i} \Delta CBLIR_{t-i} + \sum_{i=1}^k \theta_{1i} \Delta IBFRR_{t-i} + \delta_1 \gamma_{t-1} + \varepsilon_1 \quad (8)$$

Where:

- EBFRR is equity-based financing return rate
- DBFRR is debt-based financing return rate
- IBFRR is Islamic bank financing return rate (EBFRR and DBFRR)
- EBFRRISK is equity-based financing risk that is measured by non-performance financing (NPF)
- DBFRISK is debt-based financing risk that is measured by non-performance loans (NPLs)
- CBLIR is conventional bank lending interest rate
- Δ is the first-difference operator
- k_i is various lag on the regressors
- γ_{t-1} is the error correction term

The first step in the VECM test is the stationarity test (Haron & Azmi, 2008). The VECM model requires that all variables have stationary data. This study used the Augmented Dickey-Fuller (ADF) and Phillip-Perron (PP) tests as the stationary test. The next step is the VAR order selection procedure. This step selects the optimal lag based on Akaike Information Criteria

(AIC), which is commonly used to select the optimal lag in VAR models. This test produces the optimal lag in the second order. After determining the optimum lag, a VAR stability test is conducted using the autoregressive root (AR) table. If the value of the modulus is less than 1, it would indicate that the VAR satisfies the stability condition.

The next step is the cointegration test. The cointegration test was used based on maximum eigenvalue and trace statistics. This study will reject H_0 if the probability value is less than 0.05 and vice versa. The cointegration vector represents the long-run equilibrium. Granger causality test (GCT) is used to examine the causality and direction of the influence of one variable on another variable. This study uses bivariate GCT based on Granger (1969). The Impulse Response Function (IRF) is the response to a single impulse input, measured over a time series.

RESULTS

This section presents the descriptive data in **Table 3**. Observations made were based on monthly data for 11 years. **Table 3** shows that *muḍārabah* financing has a return with an average equivalent rate of 14.17 per cent, while the equivalent rate of *mushārah* financing return is 11.81 per cent. The equivalent return rates of *murābahah*, *istiṣnā'* and *ijārah* financing are 13.76 per cent, 13.15 per cent and 5.51 per cent, respectively. The average EBFRR is 12.99 per cent, while the average DBFRR is 10.81 per cent. The standard deviation of EBFRR is 2.09 and that of DBFRR is 1.15. This standard deviation of EBFRR, which is greater than that of the DBFRR, leads to the hypothesis and the finding that EBF has greater income volatility than DBF. Strengthened by **Figure 1**, the results show that the EBF practice is in line with its epistemology.

Table 3: Descriptive Statistics

Indicators	Mean	St Dev.	Min.	Median	Max	Skew	Kurt.
EBFRR (<i>Muḍārabah</i>)	14.17	3.10	9.17	13.53	21.87	0.26	-0.72
EBFRR (<i>Mushārah</i>)	11.81	1.55	8.91	11.57	14.97	0.005	-0.82
DBFRR (<i>Murābahah</i>)	13.76	1.44	11.44	13.61	18.69	0.51	0.52
DBFRR (<i>Istiṣnā'</i>)	13.15	1.17	10.56	13.26	14.73	-0.75	-0.50
DBFRR (<i>Ijārah</i>)	5.51	4.98	-0.005	8.73	11.16	-0.04	-1.99
EBFRR	12.99	2.09	9.205	12.97	17.68	-0.21	-0.96
DBFRR	10.81	1.15	7.63	10.82	12.71	-0.13	-0.95
EBFRISK- <i>Muḍārabah</i>	2.99	1.10	1.52	2.66	6.55	1.71	2.85
EBFRISK- <i>Mushārah</i>	4.49	1.09	2.94	4.49	6.84	0.34	-1.00
DBFRISK- <i>Murābahah</i>	4.38	0.72	2.90	4.51	6.09	-0.41	-0.34
DBFRISK- <i>Istiṣnā'</i>	2.56	1.34	1.19	1.88	6.27	1.23	0.33
DBFRISK- <i>Ijārah</i>	2.76	1.67	1.43	2.18	7.57	2.15	2.85
EBFRISK	4.19	0.88	2.89	4.20	6.18	0.49	-0.65
DBFRISK	4.24	0.70	2.83	4.40	5.88	-0.38	-0.41
CBLIR	12.39	0.98	10.58	12.46	14.84	0.07	0.02
IBFRR (EBFRR and DBFRR)	11.63	7.26	14.09	0.83	11.81	-2.06	6.90

Source: Authors' own

Test Model

This study uses time-series data and assumes that the underlying time series is stationary (Gujarati & Porter, 2009). Stationary data is data that does not vary due to seasonal patterns. Two-unit root tests are utilised in this study, namely the Augmented Dickey-Fuller (ADF) and Phillip-Perron (PP) tests, which are usually used for time series data. The results of the ADF and PP tests are presented in **Table 4**. With the ADF and PP tests at the level, the probability is more

than 0.05, which indicates that the data is not stationary at the level. The ADF and PP tests results on the first difference produce a probability of less than 0.05, which indicates that the data is stationary at the first difference.

Table 4: Unit Root Test Results

Variables	ADF Test				Phillip Perron Test			
	Level		First Difference		Level		First Difference	
	t-statistic	Prob.	t-statistic	Prob.	t-statistic	Prob.	t-statistic	Prob.
EBFRR	-0.4791	0.8905	-12.7528	0.0000 ***	-0.9771	0.7601	-25.5422	0.0000 ***
DBFRR	-1.2969	0.6298	-16.8003	0.0000 ***	-1.4268	0.5673	-17.1043	0.0000 ***
EBFRISK	-2.11199	0.2408	-5.53099	0.0000 ***	-1.4886	0.5331	-8.5463	0.0000 ***
DBFRISK	-1.12638	0.7005	-9.79921	0.0000 ***	-0.9716	0.7585	-9.8293	0.0000 ***
IBFRR	-1.64317	0.4577	-11.9363	0.0000 ***	-2.8519	0.0540	-21.0779	0.0000 ***
CBLIR	-1.73734	0.4102	-9.28375	0.0000 ***	-1.7454	0.4061	-10.5601	0.0000 ***

Note: ***, **, * indicate significance at 1%, 5%, 10%, respectively.

Source: Authors' own

Table 5 shows the results of the VAR stability test using the AR Root table. If the VAR estimation result is unstable, then the Impulse Response Function and Variance Decomposition will be invalid. **Table 5** shows the value of modulus less than 1 and indicates that VAR satisfies the stability condition.

Table 5: VAR Stability Test

Root	Modulus
-0.379873 - 0.510677i	0.636470
-0.379873 + 0.510677i	0.636470
-0.000775 - 0.491089i	0.491089
-0.000775 + 0.491089i	0.491089
0.090515 - 0.411987i	0.421813
0.090515 + 0.411987i	0.421813
-0.089001	0.089001
-0.027045	0.027045

Source: Authors' own

Cointegration Test

Table 6 shows the cointegration test using the maximum eigenvalue and trace statistics. The cointegration test results show a probability value of less than 0.05 and thus, the decision is to reject the null hypothesis and shows that there is cointegration between the variables tested. In other words, there are 6 cointegration vectors for a set of variables in the system. The existence of a cointegration vector indicates that all variables in the system have long-run equilibrium.

Table 6: Cointegration Test

Hypothesised No. of cointegrating equations CE(s)	Eigenvalue	Trace Statistics	0.05 Critical Value	Prob.**
None *	0.540490	139.5766	95.75366	0.0000
At most 1 *	0.408151	91.36577	69.81889	0.0004
At most 2 *	0.296348	58.84650	47.85613	0.0033
At most 3 *	0.247858	37.05525	29.79707	0.0061
At most 4 *	0.191932	19.39579	15.49471	0.0123
At most 5 *	0.094915	6.183060	3.841466	0.0129

Source: Authors' own

Granger Causality Test

The Granger causality test (GCT) is used to test the causality and direction of the influence of one variable on another variable. The GCT is used to answer the research hypotheses as presented in **Table 7**. The GCT on whether there is correlation between the EBFRR and DBFRR produced an f-statistic of 0.73015 and a probability of 0.4839. However, the correlation DBFRR to EBFRR produces an f-statistic of 1.06075 and a probability of 0.3493. These results indicate that there is no correlation between EBFRR and DBFRR and vice versa.

The GCT to test the causality of EBFRR to DBFRR produced an f-statistic of 1.11514 and a probability of 0.3347. However, the results of the DBFRR test against EBFRR resulted in an f-statistic of 0.14343 and a probability of 0.8667. This result also shows that there is no correlation between the NPF from EBF and DBF. This means that the risks of EBF and DBF are mutually unrelated.

The results of the GCT between the CBLIR with EBFRR produced an f-statistic of 0.08380 with a probability of 0.9197. Conversely, the results of the causality test between EBFRR and CBLIR produced an f-statistic of 0.03641 and a probability of 0.9643. These results indicate that EBFRR is not related to CBLIR. These results reinforce the conclusion that there is a tendency for EBF to be consistent with its epistemology.

Table 7 further shows that the GCT between IBFRR and CBLIR produced an f-statistic of 0.03764 with a probability of 0.9631. The GCT between CBLIR and IBFRR produced an f-statistic of 0.11441 with a probability of 0.8920. The test shows that IBFRR (including EBFRR and DBFRR) is not correlated with CBLIR and vice versa.

Table 7: Granger Causality Test

Null Hypothesis:	F-Statistic	Prob.
Hypothesis 1		
D(EBFRR) does not Granger Cause D(DBFRR)	0.73015	0.4839
D(DBFRR) does not Granger Cause D(EBFRR)	1.06075	0.3493
Hypothesis 2		
D(EBFRR) does not Granger Cause D(DBFRR)	1.11514	0.3347
D(DBFRR) does not Granger Cause D(EBFRR)	0.14343	0.8667
Hypothesis 3		
D(EBFRR) does not Granger Cause D(CBLIR)	0.03641	0.9643
D(CBLIR) does not Granger Cause D(EBFRR)	0.08380	0.9197
Hypothesis 4		
D(IBFRR) does not Granger Cause D(CBLIR)	0.03764	0.9631
D(CBLIR) does not Granger Cause D(IBFRR)	0.11441	0.8920

Source: Authors' own

Impulse Response Function

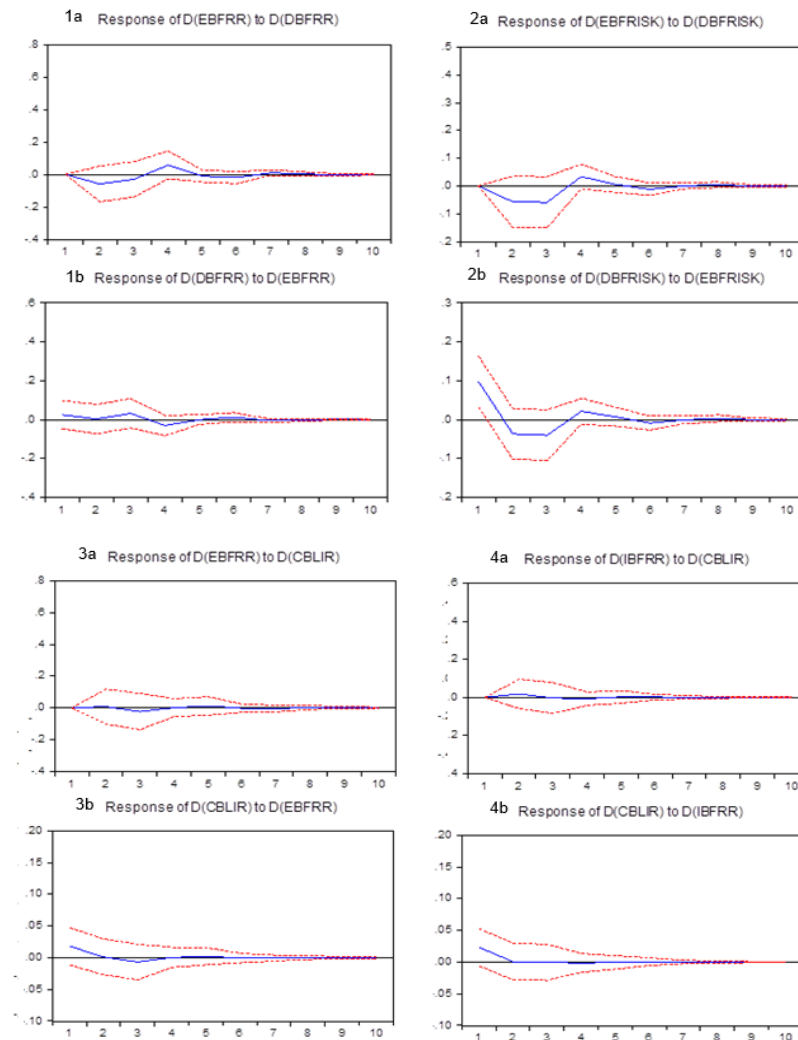
The impulse response function (IRF) describes the reaction of the variable as a function of time and parameterises the dynamic behaviour of the variable. This study uses eight variables, and the results of the IRF are presented in **Figure 1**. The response of EBFRR to DBFRR (1a) indicates that EBFRR fluctuates and has a positive or negative response. This response is for approximately six months. The same response is also shown in (1b), showing that DBFRR has a fluctuating response (negative and positive response) to EBFRR.

The response of EBFISK to DBNFRISK (2a) showed a fluctuating response for approximately six months and had more negative responses. The same response also occurs in DBFRISK to EBFISK. This fluctuating response confirms the GCT results that there is no correlation between DBFRISK and EBFISK.

The response of EBFRR to CBLIR (3a) showed less response. The negative response only occurred in the third month. On the other hand, the response of CBLIR to EBFRR (3b) was more volatile than the response of EBFRR to CBLIR. The response of CBLIR to EBFRR is for approximately four months. The response ‘interest lending’ has a high response to EBF returns. This fluctuating response confirmed the absence of a correlation between EBFRR and CBLIR.

The response of IBFRR to CBLIR (4a) showed a less fluctuating response. A positive response occurred in the second month. On the other hand, CBLIR has a fluctuating response to IBFRR (4b). **Figure 1** shows that CBLIR had a positive response to IBFRR in the second month.

Figure 1: Impulse Response Function Results



Source: Authors' own

DISCUSSION

IBs have two different types of financing in the process of sharing returns between banks and customers, notably, EBF and DBF. In EBF, the bank obtains income that comes from a certain percentage (or the ratio) of business revenue run by the customer. In DBF, banks receive income on sales profit margins or rental income of a fixed amount.

Other researchers identified that the high risk of EBF is due to the potential for uncertain income compared to DBF (Warninda *et al.*, 2019). The GCT results in **Table 7** show that EBF and DBF have different characteristics of revenue acquisition risk. EBF has greater income uncertainty (Warninda *et al.*, 2019). The EBFRR and DBFRR are not correlated. Additionally, in line with the findings of Ernawati (2016), it is found that EBF (especially *muḍārabah*) has a lower certainty of return than DBF. This means that the two financing modes are different and it can be concluded that both EBF and DBF are functioning in line with their epistemology. This result rejects the conclusion of Hidayah *et al.* (2019) on the pseudo practice of EBF, which seemingly operates similar to DBF. This study also rejects the argument of Mahmood and Rahman (2017) and the findings of Chong and Liu (2009), Ergeç and Arslan (2013), Hamza (2016) and Šeho *et al.* (2020), who claimed that PLS products offered by IBs are not interest-free. Hidayah *et al.* (2019) concluded that banks implemented PLS contracts artificially because the banks modified the PLS contract to make it easier to operate in line with customer preferences by setting fixed income policies, similar to the case of DBF. However, the results in this study show that EBF generates more volatile returns than DBF. This is in line with the main characteristics of PLS. This study's and Hidayah *et al.*'s (2019) results differ due to the differences in the two studies. Hidayah *et al.* (2019) used qualitative methods. Therefore, their conclusions were based on the results of interviews with bank managers. However, this study employed a quantitative approach and used empirical data reported in the financial statements. Further, there is a possibility that what was conveyed by the informants in Hidayah *et al.*'s (2019) study was not supported by data in the financial statements.

Table 3 shows that EBF has a lower risk than DBF. When viewed from the type of financing, *mushārahah* financing was found to have a higher risk than *muḍārabah* financing. This finding rejected the results of Ernawati (2016), who stated that *muḍārabah* had a higher risk than *mushārahah* due to information asymmetry. Also, this research differs from the findings of Belkhaoui *et al.* (2020) and Mukhibad *et al.* (2023), who reported that EBF has a positive influence on NPF. We found that *murābahah* financing has higher risk compared with other types of EBF, such as *muḍārabah*. This is contrary to the concept of *murābahah* financing. The difference between this research's results and previous literature is that this research processes aggregate data for all banks, whereas previous literature processed data for individual banks. The characteristics of EBF financing cause banks to be stricter in channelling their financing; banks analyse the feasibility and projected profits of businesses run by customers to determine the proportion of profit sharing between the bank and customers. However, in DBF, which generates fixed income for the bank, the customer eligibility analysis differs from that of EBF. Moreover, Hendrik *et al.* (2018) show that DBF financing is for consumer financing and contributes most significantly to the increase of NPF. This condition caused DBF to have a greater risk in aggregate than EBF. There is no information asymmetry as in *muḍārabah*. From these findings,

therefore, the conclusion that EBF has a higher risk than DBF is rejected. We suspect that the type of contract is not the cause of the difference in risks.

When viewed from the risk of financing, the results of the study show that the EBF RISK and DBF RISK are not correlated. The results indicate that DBF has a higher risk than EBF. We further assume that the low EBF RISK does not mean that EBF is not in line with its epistemology. This is because high risk is significantly influenced by the ability and character of the customer. We also found that the products that had the highest risk were *mushārahah*, *murābahah* and *muḍārahah*. The high risk of *mushārahah* and *murābahah* financing triggered a high bank risk. Therefore, EBF has a higher risk than DBF (Alam & Parinduri, 2017; Suzuki *et al.*, 2019; Warninda *et al.*, 2019). However, this high risk is due to uncertainty about return rather than a high NPL.

The finding showed that there is no causality between EBFRR and CBLIR. This finding reinforces the study's other finding that EBF conform with its epistemology. In contrast to CBLIR, the equivalent of EBF return rate cannot be determined by the bank at the time of the contract. Rather, the determination of EBFRR is based on the business results run by entrepreneurs.

Comparing the EBFRR and CBLIR shows that CBs receive an interest rate of 12.39 per cent, which is greater than IBFRR with an equivalent rate of 11.63 per cent. The low equivalent rate of Indonesian IB financing may be due to the low market share of the Indonesian IBs, which is only 5.3 per cent (Mukhibad *et al.*, 2020). A low market share allows companies to adopt strategies that can help reduce the selling price of products and consequently attract customer interest.

The results of the correlation test between IBFRR and CBLIR show that the study found no causality between the two. In other words, IBFRR is unrelated to CBLIR, and vice versa. This result reinforces the conclusion that IBs' financing policies are not based on interest rates. These results reject the findings of Šeho *et al.* (2020), who found a positive correlation between equity-based financing return rate (EBFRR) and interest rates. Additionally, the study supports the conclusion of Yusof *et al.* (2015) and Yuksel (2017) that IBs are free from the interest rate. Thus, IBs do not use CBLIR as a standard in determining the return rate on the financing they provide to customers.

CONCLUSION

This study contributes to the debate on whether IBs offer PLS transactions according to its epistemological rulings as per Islamic law. This study's results indicate that EBFRR is not related to DBFRR, leading to the conclusion that both EBF and DBF in Indonesian IBs operate in line with their Sharī'ah rules.

The results also provide evidence that the risk between EBF and DBF is mutually unrelated. This study further proves the main characteristics of EBF that have a different or higher risk than DBF. The study also identified the correlation between EBFRR and CBLIR and found that the two are not related. EBFRR has an uncertain nature and cannot be determined in advance by the bank at the time of the contract. EBFRR is different from CB's interest rate, where the bank can determine interest at the time of the credit agreement.

Moreover, the results prove that there is no correlation between IBFRR and CBLIR. The findings of this study and previous studies show that IBFRR is not related to interest rates. IBs do not use the interest rate as a standard in determining the return rate on the financing they provide to customers. IBFRR is based on the outcomes of businesses run by customers.

This study used time series data presented by banking regulators in Indonesia and not cross-sectional data. Therefore, it cannot explain whether EBF is implemented in line with its initial concept in all banks. Future research can make use of cross-sectional data to complement this study's results. Additionally, the equivalent return rate indicator reported by the regulators has been used. Future research can use another proxy by comparing the costs with the amount of financing reported in the banks' financial statements.

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DECLARATION

Credit Authorship Contribution Statement

- Hasan Mukhibad: Conceptualization, Investigation resources, Methodology, Data curation, Validation formal, Analysis, Writing, and Visualization.
- Doddy Setiawan: Conceptualization, Analysis, Review, and Editing.

Declaration of Competing Interest

The authors state that no known competing financial interests or personal relationships could have influenced the research work.

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None

Data Availability

Data will be made available on request to the corresponding author.

Appendix

None

FACTORS INFLUENCING THAI MUSLIMS' WILLINGNESS TO DONATE CASH WAQF TO RELIGIOUS PROJECTS

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ABSTRACT

Purpose — Muslim communities in Thailand have lately used cash waqf as a creative strategy to raise seed money from Muslim contributors to implement religious projects such as building religious institutions like mosques and Islamic schools. The factors influencing this unique kind of giving have, to date, rarely been studied. This research attempts to examine the motivational and economic elements that impact people's willingness to donate (WTD) cash waqf to such religious projects.

Design/Methodology/Approach — The study utilised a Contingent Valuation Method (CVM) and an ordinal logistic regression method to examine the effects of various independent variables on the WTD. A validated structured questionnaire was utilised to collect primary data from 404 cash waqf donors in the southernmost provinces of Thailand.

Findings — When comparing donors with medium income levels to those with higher salary levels, the findings show that donors in the higher salary category were more likely to generate a higher WTD propensity. The probability of donors' WTD was positively influenced by any reductions in debt levels. Furthermore, factors such as belief in the afterlife, the salience of one's Muslim identity, and the experience of a warm glow were found to have a positive impact on individuals' WTD cash waqf to religious projects.

Originality/Value — This study utilised the Contingent Valuation Method (CVM) to examine the cash waqf practices, which has received limited attention in previous scholarly works. Furthermore, the variables employed in this research serve to broaden the scope of understanding in the realm of Islamic philanthropy, surpassing the confines of the attitude-intention framework.



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Research Limitations/Implications — The factors used in this study encompass the internal drives of potential donors. In reality, a number of external circumstances, such as the validity of the waqf project and the donor's accessibility to other options, may have an impact on the donor's choice. Additionally, the scope of this study was restricted to the southern border provinces of Thailand. It would be of interest to conduct additional research that broadens the sample size and geographical scope to include other regions within the country or even other countries with diverse cultural and socioeconomic contexts. This would enable the generalisation of the findings obtained from this study.

Practical Implications — Waqf fundraising organisations should focus on boosting awareness among high-income, low-debt people. This population group donates more than middle- and lower-class people. Mosques and religious organisations can use a strategy to help donors reassess the spiritual benefits of waqf giving in relation to the afterlife, the reinforcement of their Muslim identity, and the emotional satisfaction of giving. These motivators will increase the likelihood of mosque donations.

Keywords — Afterlife incentive, Cash waqf, Muslim identity, Thailand, Warm glow, Willingness to donate (WTD)

Article Classification — Research paper

INTRODUCTION

In many countries, endowment fundraising is closely associated with religious activities, including the organisation of religious events, charitable endeavours, and contributions to religious institutions. Given that most religious organisations operate as non-profit entities, their financial sustainability heavily relies on the support of their respective faith communities. Specifically, the act of donating to construct religious sites, known as waqf in Islamic terminology, has been a longstanding tradition in both Muslim-majority nations and non-Muslim countries including Thailand (Cizakca, 1998; Brown, 2013). Waqf entails a donor relinquishing his/her property ownership to God and dedicating the use of the property for the benefit of the public. However, waqf fundraising for religious sites in Thailand faces challenges in the form of delays in fundraising and donor participation (Noipom *et al.*, 2018). The failure to address these challenges has led to a number of religious institutions experiencing difficulties in effectively financing their objectives, which has led their project managers to accumulate debt (Dorloh, 2012; Ali & Hassan, 2019). Current studies of waqf in Thailand have found only problems with local people's understanding and legal issues. To create a donor-centric fundraising model, donors' willingness to donate (WTD) must be examined, taking into account the intrinsic value of donating and the various factors that influence it.

Past studies of Islamic philanthropy have focused on the factors that influence the intention to donate (ITD) rather than assessing the economic value of willingness to donate (WTD). For example, Allah Pitchay (2022) found that attitude, subjective norms and perceived behavioural control (PBC) of the management influenced the ITD cash waqf. Osman *et al.* (2016) pointed out that zakat is driven by religiosity, attitude, and norms. Although the use of the contingent valuation method (CVM) model is often found in studies in health economics, environmental studies and public economics, only the study of Masahina and Kijas (2012) initiated a framework for waqf studies using the CVM method, presenting a knowledge gap. It is worth noting that while cash waqf models have been effectively implemented in countries such as Malaysia, Indonesia and Singapore for the purpose of financing waqf assets, this strategy has not been fully adopted in Thailand. The significance of this matter lies in the fact that Muslim communities residing in the southern border provinces possess information regarding waqf principles, yet they have not effectively applied this knowledge to ascertain the preferences of donors based on their socioeconomics and motivation.

This study attempts to fill the above-mentioned gaps with evidence from Thailand. The aim of this paper is to investigate the impact of variables affecting Thai Muslim donors' WTD for religious initiatives. This study is expected to provide a clearer understanding of the willingness of Thai Muslims to donate waqf to maintain religious sites. The subsequent sections encompass a literature review that delves into the fundamental concepts and recent related studies, a discussion of the methodology, models and statistics employed in this study, presentation of the results, and an in-depth analysis. The study concludes with a summary and offers policy recommendations.

LITERATURE REVIEW

Willingness to Donate

The willingness to donate (WTD) concept is analogous to the willingness to pay (WTP) concept, which is used to determine a customer's reservation price for a specific product. The latter is defined as the maximum price that a consumer is willing to pay in order to obtain a product or service and reflects the highest amount of consumer willingness to compensate for a specific good or service (Kamaruddin *et al.*, 2018; Ngah *et al.*, 2020). The term WTD simultaneously arose in the work of Champ *et al.* (1997), who explain the distinction between the two terms. The WTP is the utmost amount a person is prepared to pay for a public benefit, if no one else is; while the WTD is the highest amount a person is willing to pay if she can ride on the efforts of others. The latter was frequently used in donation research, including the willingness of the donor to donate blood for beneficiaries and the financial and temporal resources that donors were willing to allocate towards achieving their objectives (Sarstedt & Schloderer, 2010; Mews & Boenigk, 2013).

The aforesaid concept has been utilised to evaluate the worth of non-market goods or services within various academic fields. The disciplines encompassing environmental studies have been demonstrated in the works of Menges *et al.* (2005) and Masahina *et al.* (2012). Additional evidence of the application of the concept in the fields of agriculture, fisheries and wildlife is provided by the studies conducted by Stevens *et al.* (1991), Aizaki *et al.* (2006), Ficko and Boncina (2015), and Chen *et al.* (2018). Furthermore, the concept has been examined in the realm of healthcare by the studies conducted by Klose (1999) and Tambor *et al.* (2014). Finally, the aforementioned concept has been employed within the field of public economics, as evidenced by the scholarly investigation conducted by Masahina and Kijas (2012). Therefore, the present concept will be utilised to analyse the contribution of cash waqf, which embodies an aspect of the public good.

Cash Waqf in Thailand

Since the time of Prophet Muhammad (SAW), waqf has been one of the most approved and practised forms of charitable contribution in the Islamic world (Cizakca, 1998; McCleary, 2007). According to Visser (2019), there is a prevailing belief that waqf primarily involves the donation of physical assets. However, the most recent fatwa from the International Islamic Fiqh Academy (IIFA) has clarified that cash can also be regarded as a form of property eligible for waqf contributions (International Islamic Fiqh Academy, 2023). Thus, cash waqf donations have become one of the most popular types of charitable giving in both Muslim-majority and Muslim-minority countries, including Thailand.

Waqf properties are classified into two types: public waqf (*waqf al-khayri*) and family waqf (*waqf al-ahli*). Each has distinct ownership and use requirements (Shirazi *et al.*, 2015). The public waqf is property held for public and private charity purposes after the death of an ancestor. The practise of family waqf in Thailand is to keep family disputes at bay and to prevent inherited property from being divided into small pieces and less productive assets (Brown, 2013). However, the waqf properties found in Thailand are rarely distinguishable between the two types.

The main issues with cash waqf in Thailand include the conventional method of collection and a lack of research from a donor standpoint. In certain locations, it is usual practise for donors to gift or dispose of their land straight to the imam (leader) of the mosque. Waqf holdings include land, apartments, and plantations of rubber and coconut. However, the management of waqf assets, including recordkeeping, accounting systems and fund management, lacks standardisation, and governance remains weak due to limitations within Thai laws. Consequently, the traditional methods of waqf investment pose the principal obstacles to waqf development in Thailand (Ali & Hassan, 2019; Zain *et al.*, 2019; Boonchom & Assalihee, 2023). Most campaigns request donations from contributors, mentioning the total amount required by the organiser but not the amount the donor should pay at the outset. As a result, several waqf initiatives have been unable to raise funds for the acquisition of waqf properties (Dorloh, 2012), and some initiatives require a longer period of fundraising to reach their goal.

Socioeconomics, Previous Experience and Donation

Socioeconomic factors encompass population statistical characteristics that play a significant role in evaluating the effects of donations. These factors have been observed to exert both influential and non-contributory influences. Existing research has indicated that gender (Ranganathan & Sen, 2012; Chapman *et al.*, 2018; Ki & Oh, 2018), age (Schlegelmilch *et al.*, 1997; Lee & Chang, 2007; Chapman *et al.*, 2018; Rasool *et al.*, 2021), and economic status (Lee & Chang, 2008; Rajan *et al.*, 2009; Bekkers & Wiepking, 2011; Khan *et al.*, 2020) significantly influence individuals' propensity to donate. However, previous studies have indicated that gender (Butt *et al.*, 2018; Krupic *et al.*, 2019; Kananeh *et al.*, 2020), age (Awan & Hameed, 2014; Hapsari *et al.*, 2022), and income (Mramba, 2018; Cho & Park, 2020) have shown no significant influence on donation behaviour. Income and debt are key economic factors that influence human behaviour, including the act of making donations. The correlation between higher income, increased spending and philanthropic capacity is well documented; however, the existence of debt can hinder one's ability to make charitable contributions.

Previous research in the field of human behaviour, specifically in the context of donation decisions, has consistently demonstrated that past behaviour significantly influences the likelihood of behaviour repetition (Heikal, 2014; Kashif & De Run, 2015; Urbonavicius *et al.*, 2019; Cho & Park, 2020). This implies that individuals with prior donation experience exhibit a greater inclination to contribute a larger amount compared to those who lack such experience. However, several studies have indicated that there may not always be a significant correlation between past behaviour and the likelihood of making a donation. According to a study conducted by Andam and Osman (2019), it was observed that the act of giving did not have a significant impact on the willingness of Muslims to fulfil their obligation of paying zakat on income. The impact of previous donation experiences on current donation behaviour exhibits a range of outcomes.

Afterlife Incentive and Donation

Muslim economists argue that Muslim consumer behaviour theories must diverge from mainstream ideas due to their opposing worldviews. Muslims believe that spending money on consumption will be rewarded in the afterlife if it is done for the cause of Allah. As a result,

Muslim consumer behaviour theory may diverge from traditional economic theory. According to Khan (1984), the expenditure patterns of Muslims can be classified into two distinct categories: personal and familial expenditures, and contributions made with the intention of pleasing Allah. The author conveyed that the selection between these two alternatives would be made by the customer. An intriguing aspect of his argument pertains to the correlation between the level of faith among Muslim consumers and their spending patterns in pursuit of utility. Therefore, the act of donating can be perceived as an alternative expenditure choice that leads to satisfaction among Muslim consumers.

According to Thornton and Helms' (2013) study, there is a significant correlation between incentives for the afterlife and people's propensity to give. It was found that the decision to engage in philanthropic activities was significantly influenced by religious teachings and beliefs. However, research has shown that religious factors only slightly affect the amount of gifts. In addition, a study conducted by Osman *et al.* (2016) investigated the perceived *ihsan*, Islamic egalitarianism, and Islamic religiosity among clients of Islamic banks in Malaysia. The researchers found that specific variables were linked to the contributions made towards cash waqf. Mokthar (2016) suggests that religion significantly shapes the inclination of Muslim staff at Universiti Sains Malaysia (USM) to contribute to cash waqf. A comparable pattern was observed across different generations in Indonesia (Jatmiko *et al.*, 2023). However, the decision of SME owners in Indonesia and Malaysia to engage in waqf was not influenced by religiosity (Laila *et al.*, 2022). This phenomenon has also been observed in various academic studies, including investigations on the zakat payment behaviour of university staff members (Bakar & Rashid, 2010), Muslim giving in the Netherlands (Carabain & Bekkers, 2012), Muslim donors in major urban centres of Saudi Arabia (Opoku, 2013), and the practise of Buddhism in Thailand (Apinunmahakul, 2014).

In brief, religion is a variable of considerable significance in the realm of research on charitable giving. However, several studies have identified afterlife incentives as the predominant driving force behind altruistic behaviour. From an economic perspective, the concept of an afterlife incentive can be interpreted as the anticipated return on investment or savings. Based on recent scholarly investigations, it has been observed that the presence of afterlife incentives exerts a significant positive impact on individuals' propensity to donate to cash waqf.

Muslim Identity Salience and Donation

According to identity theory, individuals manifest their self-perception through their behavioural patterns. The identification of an individual's core identity is often contingent upon their primary occupation, self-perception and personal convictions. According to the study conducted by Phalet *et al.* (2010), there was variation in the impact of religious identity's importance on the political standing and expression of Dutch Muslims belonging to different ethnic groups. Moroccan Muslims exhibited a willingness to support Islamic objectives when their religious identity was unambiguous. In contrast, Turkish Muslims exhibited a lower propensity to emulate the behaviour of Moroccan Muslims, except in instances pertaining to advocacy for human rights. Therefore, the salience of religious identity has an impact on an individual's attitude and propensity to take action.

According to the findings of Chapman *et al.* (2018), the majority of individuals who provided monetary contributions did so in accordance with their personal beliefs. The selection of charities was influenced by the collective objectives of the group and the corresponding regulations. According to Yusoff *et al.* (2017) and Allah Pitchay (2022), in the context of Malaysia and Thailand, Muslim workers' attitudes were found to be positively associated with their propensity to engage in monetary contributions. In a study conducted by Osman and Muhammed (2017), it was verified that Muslim donors within various Selangor groups yielded comparable outcomes. In their study, Boenigk and Helmig (2013) discovered a correlation between the salience of one's identity and the propensity to engage in donation behaviour.

When it comes to monetary donations, the impact of corporate affiliation and the prominence of one's identity have a more significant influence on donor commitment compared to the level of donor satisfaction. However, when it comes to blood donation, the level of satisfaction experienced by the donor has a more significant influence on the establishment of loyalty. Weangsamoot (2016) employed an experimental methodology, dividing participants into two distinct groups: individuals who made substantial contributions and individuals who made minimal contributions. The researcher examined the impact of peer influence on individuals' propensity to contribute to public goods. The researcher observed that a majority of individuals in both cohorts exhibited a propensity to modify their behaviour in the presence of their peers.

Warm Glow, Utilisation and Donation

A strong incentive for giving is the warm glow that is the pleasure of giving. Happiness may appear right away when a donor contributes anything, whether it be in the form of cash, time, or gifts. This kind of incentive is present in German households, according to research by Bruhin and Winkelmann (2009). Parents were impelled to give money to their kids because of a sense of satisfaction in giving. Ferguson *et al.* (2012) evaluated the motivation of Dutch blood donors using an experimental research method. The results showed that each donor group had different reasons. The experienced donors seemed to be motivated by warm-glow and altruism, while the novice donors appeared to be driven by reluctant altruism. Additionally, depending on the donor's earned endowment and action taken, Luccasen and Grossman (2017) found that the warm glow might increase or decrease. Imas (2014) also discovered that people exhibited altruistic motivation when they worked for charity with nothing in the way of reward. Surprisingly, those who worked for themselves tended to put in more effort when given bigger incentive stakes, but not those who worked for others. These indicate that individuals who prioritise the welfare of others over personal benefits tend to care more about others in the absence of an incentive.

Furthermore, Cappellari *et al.* (2011) found that a warm glow and reputational concern had a positive effect on contributions of both money and time. A warm-glow incentive has been identified in several studies on donations. The warm glow effect on the willingness to pay for three different Alentejo Natural Park preservation strategies in Portugal was identified by Nunes and Schokkaert (2003) using the contingent valuation technique. The study found that a pleasant glow was part of the respondent's voluntary price. It is indicated that the 'use' value and the 'warm glow' impact were included in the fee that individuals paid to sponsor each programme. In the contribution for public libraries in Korea, Lee *et al.* (2010) verified the evidence of the

warm glow effect. Additionally, wealth and education had a substantial impact on their gift to libraries, but not age, gender, or contentment. The findings demonstrated that those who are wealthy and well-educated are more likely to pay for public library services. It's interesting that the largest contributors were those with the highest warm-glow motivations.

METHODOLOGY

Sample and Data Collection

The present study employs a survey methodology to gather cross-sectional data from Muslims residing in the southernmost provinces of Thailand, namely Pattani, Satun, Yala, Songkhla and Narathiwat. The data collection is conducted using questionnaires. Due to the lack of accurate data regarding the exact number of Muslims residing in this particular region, Cochran's (2007) methodology was employed to calculate the minimum sample size required for this study. Subsequently, a recommendation was put forth to ensure a minimum of 350 responses for the computed sample size. In this study, a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree was used to collect the data.

In adherence to established ethical protocols for research, consent was initially sought for the collection of data. The questionnaire encompasses explicit details regarding the survey's objective, accompanied by a commitment to ensuring the confidentiality and anonymity of all respondent-provided information. The pilot test was used to assess the dependability and preliminary estimate of the willingness to donate (WTD). The results of the reliability test, specifically the Cronbach alpha coefficient, indicate that all variables in the study exhibit a high level of reliability. The survey required a duration exceeding two months for its completion. The 404 effective questionnaires were generated at the conclusion of the data collection phase, yielding a response rate of 80.80 per cent. **Table 1** presents an overview of the socioeconomic attributes of the donors.

To assess their WTD for each waqf project, the double bound closed-end question method has been employed. The initial bid value was 500 Thai Baht (THB500), which was obtained from the preliminary survey. Respondents who accepted it were presented with a second request to make a donation double the value of the first. In the opposite scenario, if they declined the initial offer, they would be prompted to evaluate a second proposition with a value that has been cut in half. The CVM method used to assess a person's desire to make a cash waqf donation for a religious project is shown in **Figure 1**.

Model

The objective of this study is to determine the WTD cash waqf for undertaking religious projects and analyse the factors that have an impact on it. When the dependent variable consists of categorised data, the ordinal logistic regression model is employed to obtain precise estimations. The ordinal or ordered logistic regression model is an extension of the binary response model, which is used when the response variable has two or more levels (Hilbe, 2009). The researcher proceeded with the implementation of the subsequent model.

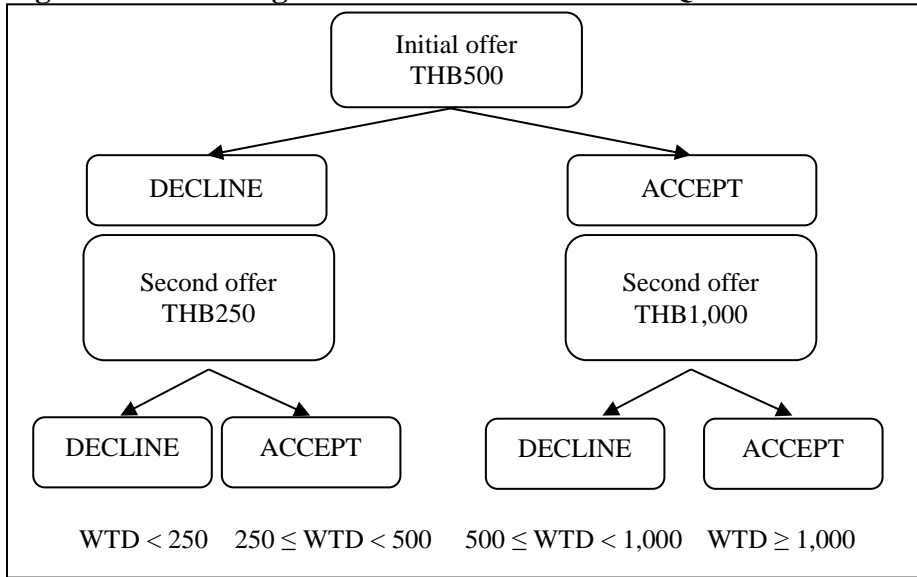
$$\text{logit}[P(WTD_{mas})] = \ln \left[\frac{WTD_{mas_{ij}}}{(1 - WTD_{mas_{ij}})} \right] = \alpha_i + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + u \quad (1)$$

Table 1: Socioeconomic Characteristics of Donors

Variable	Frequency	Percentage
<i>Gender</i>		
Male	220	54.46
Female	184	45.54
<i>Age (years)</i>		
Below 20	1	0.25
20 to 30	84	20.79
31 to 40	186	46.04
41 to 50	88	21.78
Above 50	45	11.14
<i>Marital status</i>		
Single	85	21.04
Married	310	76.73
Divorced/widowed	9	2.23
<i>Family members (persons)</i>		
Less than 2	15	3.71
2 to 4	165	40.84
5 to 7	175	43.32
More than 7	49	12.13
<i>Education level</i>		
Below bachelor's degree	9	2.23
Bachelor's degree	217	53.71
Master's degree	124	30.69
Higher than master's degree	54	13.37
<i>Main occupation/career</i>		
Work for a government agency	213	52.72
Organisation's employee	87	21.53
Self employed	57	14.11
Farmer or rancher	7	1.73
Housewife	18	4.46
College student	11	2.72
Freelancer	11	2.72
<i>Salary (THB)</i>		
Below 10,000	40	9.90
10,001 to 20,000	125	30.94
20,001 to 30,000	88	21.78
30,001 to 50,000	109	26.98
More than 50,000	42	10.40
<i>Debt</i>		
No debt	104	25.74
Less than 25% of income	159	39.36
From 25 to 50% of income	94	23.27
Exceed 50% of income	47	11.63

Source: Authors' own

Figure 1: Describing Double Bound Closed-End Question Method



Source: Authors' own

The symbol $P(WTDmas)$ represents the probability of the event occurring. The variable $WTDmas_{ij}$ represents the response form of individuals' WTD cash waqf for a religious project. The variable $1 - WTDmas_{1j}$ represents alternative response formats for measuring individuals' WTD cash waqf for religious projects. The symbol α_i represents the constant value of the equation. β_{1-10} represents the coefficient of each predictor variable. The variable u represents the error term. The variables used in this study are as follows: X_1 represents the gender of the respondents, X_2 represents the age of the respondents, X_3 represents the salary of the respondents, X_4 represents the debt of the respondents, X_5 represents the donation experience of the respondents, X_6 represents the waqf experience of the respondents, X_7 represents the waqf property utilisation, X_8 represents the afterlife incentive, X_9 represents the Muslim identity salience, and X_{10} represents the warm glow.

Subsequently, the researchers proceeded to employ odds ratio estimation in order to enhance the comprehensibility of the findings.

$$\frac{WTDmas_{ij}}{(1 - WTDmas_{ij})} = e^{\alpha_i + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + u} \quad (2)$$

Assumption Testing

The ordinal Hosmer-Lemeshow (ordinal HL) and Lipsitz tests were utilised by the researchers to assess the goodness of fit of the model. A p-value exceeding 0.05 suggests that the model is a good fit for the data. Both numerical values were observed to provide further insight into the adequacy of the model, as indicated in **Table 2**.

Table 2: Goodness-of-Fit Tests of WTD for Religious Model

Model: proportional odds					
Dependent variable: WTDmas = [1, 2, 3, 4]					
Number of observations = 404					
Tests	Number of groups/patterns		Statistic	df	P-value
Ordinal HL	10		29.510	26	0.2884
Lipsitz	10		8.761	9	0.4597
(HL = Hosmer-Lemeshow)					

Source: Authors' own

Afterward, the researchers examined the impact of the independent variables on the response variable through the implementation of a likelihood ratio test (LR test). When the p-value of the LR test is less than 0.05, it signifies that the independent variables have a statistically significant impact on the dependent variable. It is clear from the data in **Table 3** that the LR test's p-value is statistically significant ($\text{prob} > \text{chi}^2 = 0.0000$). Therefore, it can be concluded that all independent variables have exerted an influence on the response variable. Additionally, the pseudo R-square coefficient was determined to be 0.0582, indicating a moderate level of explanatory power. Furthermore, the log likelihood value was calculated to be -503.15008, suggesting a relatively good fit of the model to the data.

Table 3: Likelihood Ratio, Pseudo R-Square and Log Likelihood of WTD

Ordered logistic regression		
Number of observations = 404		
Test	Statistic	Prob > chi2
LR chi2(20)	62.23	0.0000
Pseudo R2	0.0582	
Log likelihood	-503.15008	

Source: Authors' own

RESULTS AND DISCUSSION

Results

The findings of the estimation for ordinal logistic regression are presented in **Table 4**. The proportional odds ratio for the ordered logistic regression can be found in column OR. Out of the ten independent variables incorporated in the WTD for the religious model, it was observed that five variables exhibited statistical significance at different confidence intervals, while the remaining five variables did not demonstrate statistical significance.

Salary was discovered to significantly affect the dependent variable at certain levels. The researchers selected the income range of THB20,001 to THB30,000 (level 3) as the reference point. The probabilities associated with income levels 4 and 5 were found to be 0.093 and 0.05, respectively. These values were observed to be lower than the thresholds of 0.1 and 0.05, respectively. The findings of this study indicate that individuals with a salary ranging from 30,001 to 50,000 baht exhibited a higher log odds level, specifically 0.474, in terms of their WTD cash waqf for religious projects compared to those with a different income base. Put simply, individuals without an income base had an odds ratio that was 1.606 times higher than

those with an income base. The respondents who reported a salary exceeding THB50,000 exhibited a higher log odds level of WTD cash waqf for religious projects compared to those with a baseline income of 0.751. So, it can be assumed that their odds ratio was WTD 2.12, which means that their likelihood of WTD cash waqf was 2.12 times higher than that of people with a baseline income. Nevertheless, the income variables at lower levels exhibited insignificance.

The variable of debt was further categorised into four levels: absence of debt, debt amounting to less than 25 per cent of income, debt ranging from 25 to 50 per cent of income, and debt exceeding 50 per cent of income. The latter category served as the foundation for the analysis. The p-values for the debt variables at each level are 0.002, 0.01 and 0.001, respectively. The results also indicated the magnitude of the influence of independent variables on the dependent variable, as measured by the coefficient statistics. The coefficients associated with the debt variables (coef.) at each level are 1.124, 0.848 and 1.155, respectively. These coefficients suggest that Thai Muslims who do not have any debt exhibit a higher log odds level of WTD cash waqf for religious projects compared to those who have a debt level exceeding 50 per cent of their income, with a coefficient of 1.124. This implies that their odds ratio was 3.076 times higher than the reference value. In contrast, individuals whose debt levels constituted less than 25 per cent of their income exhibited a higher log odd level of WTD cash waqf compared to those whose debt levels surpassed 50 per cent of their income, with a value of 0.848. Specifically, individuals who had a debt-to-income ratio exceeding 50 per cent exhibited an odds ratio of 2.335, indicating a significantly higher likelihood of experiencing the outcome in question compared to those without such a financial burden. Furthermore, individuals who possessed debt levels ranging from 25 to 50 per cent of their income exhibited a higher log-odd level of WTD cash waqf for religious projects compared to those whose debt levels surpassed 50 per cent of their income, with a value of 1.155. Similarly, individuals in this study exhibited an odds ratio of 3.173 times greater for having a debt level exceeding 50 per cent of their income compared to those with a lower debt level. This interpretation is contingent upon the assumption that all other variables in the model remained unchanged.

The model demonstrated that the incentive of an afterlife holds considerable importance. With a p-value of 0.001, the variable has a coefficient of 0.743. This means that, if all other factors stay the same, a rise in the afterlife incentive would cause the log odds level of WTD cash waqf for religious projects to go up by 0.743 per cent. If all the other variables in the model stay the same, the analysis shows that adding incentives for the afterlife could increase the likelihood of WTD cash waqf for religious projects by a factor of 2.102.

The presence of a warm glow was also found to be statistically significant, with a confidence level of 95 per cent. The coefficient value in the ordinal logistic model is 0.482, with a corresponding p-value of 0.027. The results show that an increase in warm glow is linked to a 0.482 increase in the log odds level of WTD cash waqf for religious projects, even when other things are taken into account. The coefficient value of the odds ratio suggests that a rise in warm glow would result in a 1.619-fold increase in the odds ratio of WTD cash waqf for religious projects.

Table 4: Ordinal Logistic Regression of the Factors Influencing WTD Cash Waqf for Religious Projects

Dependent variable: WTD for Mosque		Coef.	OR	P-value	Sig
Gender (X_1)	Male (base)	0	1	.	
	Female	-.266	.766	.171	
Age (X_2)	Below 20 years old	0	1	.	
	From 20 to 30 years old	-13.291	0	.981	
	From 31 to 40 years old	-13.052	0	.981	
	From 41 to 50 years old	-13.262	0	.981	
	Exceed 50 years old	-13.178	0	.981	
Salary (X_3) THB	Below 10,000	.319	1.376	.392	
	10,001 to 20,000	.192	1.211	.484	
	20,001 to 30,000 (base)	0	1	.	
	30,001 to 50,000	.474	1.606	.093	*
	More than 50,000	.751	2.12	.05	**
Debt (X_4)	No debt	1.124	3.076	.002	***
	Less than 25% of income	.848	2.335	.01	***
	From 25 to 50% of income	1.155	3.173	.001	***
	Exceed 50% of income (base)	0	1	.	
Donation experience (X_5)	Sometimes (yearly) (base)	0	1	.	
	Often (3-5 times in a year)	-.127	.881	.739	
	Always (monthly)	-.441	.643	.255	
Waqf experience (X_6)	Never (base)	0	1	.	
	Sometimes (yearly)	-.208	.812	.711	
	Often (3-5 times in a year)	-.069	.933	.902	
	Always (monthly)	.185	1.203	.758	
USE (X_7)	Waqf property utilisation	-.086	.918	.733	
AFT (X_8)	Afterlife incentive	.743	2.102	.001	***
MIS (X_9)	Muslim identity salience	.365	1.44	.088	*
WG (X_{10})	Warm glow	.482	1.619	.027	**
	cut1	-6.706	-6.706	.	
	cut2	-6.075	-6.075	.	
	cut3	-4.355	-4.355	.	

Remark: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Authors' own

Therefore, based on a confidence level of 90 per cent, the statistical significance of Muslim identity salience can be observed. The coefficient value in the model is 0.365, while the p-value is 0.88. The findings of the study demonstrate that a heightened sense of Muslim identity significantly contributes to a 0.365 increase in the log odds level of cash waqf allocation towards religious projects. The odds ratio coefficient suggests that an increase in the salience of Muslim identity would result in a 1.44-fold increase in the odds ratio of cash waqf donations for religious projects.

There was no statistically significant impact observed on the WTD cash waqf for religious projects in relation to the other five variables, namely gender, age, donation experience, waqf experience and waqf utilisation (p-value > 0.1).

The ordinal HL statistic, which has a value of 29.510 and a number of degrees of freedom of 26, and the Lipsitz statistic, which has a value of 8.761 and a number of degrees of freedom of

9, show that the WTD cash waqf for religious projects fits well. These results suggest that the WTD cash waqf meets the acceptance criteria. The p-values associated with these statistics are 0.2884 and 0.4597, respectively. The authors suggest that the ordinal logistic regression model is suitable and consistent with the observed empirical data. Furthermore, the findings indicate that all of the independent variables have exerted an influence on the response variable (likelihood ratio chi-square = 62.23, p-value < 0.01, pseudo R-square = 0.0582).

The impact of variables on the WTD cash waqf for religious projects was found to be significant, with both socioeconomic and motivational factors exerting a notable influence. Only two of the six socioeconomic factors, salary and debt level, exhibited a statistically significant influence on the cash waqf allocated for religious projects. The study revealed that when provided with a base salary within the range of THB20,001 to THB30,000, salaries ranging from THB30,001 to THB50,000 exhibited a statistically significant odds ratio of 1.606 times higher than the base ($\beta=1.606$, p-value < 0.1). Moreover, salaries exceeding THB50,000 demonstrated a statistically significant odds ratio of 2.12 times higher than the base ($\beta=2.12$, p-value < 0.05). In contrast, the two income levels that were below THB20,000 did not exhibit a statistically significant effect on the logarithmic odds level of WTD.

Regarding debt factors, the fundamental criterion was the presence of a debt level surpassing 50 per cent of one's income. The results of the study revealed that Thai Muslims who did not have any debt exhibited an odds ratio of WTD 3.076, indicating a significantly higher likelihood compared to the reference group ($\beta=3.076$, p-value<0.01). Similarly, individuals with debt levels below 25 per cent of their income had an odds ratio of WTD 2.335, also significantly higher than the reference group ($\beta=2.335$, p-value<0.01). Furthermore, participants with debt levels ranging from 25 to 50 per cent of their income showed an odds ratio of WTD 3.173, again significantly greater than the reference group ($\beta=3.173$, p-value<0.01).

Therefore, individuals of the Muslim faith who possessed a higher income were more likely to engage in the practise of cash waqf for the purpose of funding religious projects as compared to those individuals with a moderate-income level. In contrast, individuals with lower levels of debt exhibited a greater propensity to contribute cash waqf towards religious initiatives compared to those burdened with higher levels of debt.

Conversely, it was found that three out of four motivational factors exhibited a statistically significant influence on the WTD cash waqf for religious projects. To begin with, it is important to note that an elevation in the motivation for the afterlife would result in a higher odds ratio of WTD cash waqf for religious projects, specifically up to 2.102 times ($\beta=2.102$, p-value<0.01). Additionally, there is a significant positive relationship between an increase in warm glow and the odds ratio of WTD for religious projects. Specifically, the odds ratio is estimated to be 1.619 times higher ($\beta=1.619$, p-value<0.05) in the presence of warm glow. Ultimately, a rise in the salience of Muslim identity would lead to an increase in the odds ratio of WTD towards religious projects by a factor of 1.44 ($\beta=1.44$, p-value<0.1). Therefore, the motivational factors, specifically the incentive of the afterlife, the warm glow effect, and the salience of Muslim identity, demonstrated a favourable influence on individuals' WTD cash waqf towards religious projects.

Discussion

The primary objective of this study was to investigate the effects of various influential factors on the propensity of Muslims residing in the southern border provinces of Thailand to contribute to cash waqf donations. The study examined the socioeconomic factors of donors and found that their salary and debt-to-income ratio had a significant impact on their willingness to contribute to religious initiatives. Additionally, individuals belonging to the upper-middle income groups exhibit a nearly twofold higher likelihood to donate to religious initiatives compared to individuals in lower income brackets. Similarly, individuals who possess low or negligible debt-to-income ratios exhibited an approximately threefold higher likelihood of expressing a WTD to mosques in comparison to individuals with high debt ratios. The impact of economic factors on individuals' propensity to donate aligns with the findings of Lee and Chang's (2008) study, which revealed a correlation between income levels and cash donations. Similarly, Rajan *et al.* (2009) emphasised the significance of income as a key determinant in Canadians' contributions to international donations.

Furthermore, this research provided empirical evidence for the impact of afterlife incentive, warm glow, and Muslim identity salience on the probability of engaging in charitable donations. In contrast to other demographic groups, Thai Muslims who showed a higher propensity for charitable giving were distinguished by a strong sense of Muslim identity, a strong attachment to the rewards promised in the hereafter, and a propensity for selflessness. Therefore, it is possible to hypothesise that Muslims living in Thailand's southernmost regions would be more inclined to support religious causes as a result of increased understanding of the rewards associated with the afterlife, which could result in a nearly twofold increase in donation rates. The result stated earlier aligns with the research conducted by Thornton and Helms (2013), which revealed that religious teachings significantly impact individuals' choices to contribute to charitable causes. Similarly, Opoku's (2013) study examined the role of religiosity as the predominant factor influencing donation behaviour in Saudi Arabia. Numerous studies have identified a correlation between religious motivation and the propensity to make donations, encompassing both religious contributions and donations to non-religious causes. The afterlife incentive is a motivation associated with Islamic teachings, which acknowledge that various forms of donation are integral to religious practises. Based on Islamic teachings, it is believed that the spiritual benefits of a waqf donation persistently accrue to the donor of the waqf even beyond their demise. Consequently, research has indicated that religious factors positively influence the willingness of donors to contribute.

The study revealed a positive correlation between the strength of Muslim identity and the WTD to waqf for religious initiatives, with a notable increase of approximately 1.4 times. This observation highlights the significant influence of Muslim identity on an individual's inclination to endorse the establishment and upkeep of religious sites. Sponsoring a religious institution may be more in line with a Muslim benefactor's self-image and values than a donation to a secular cause. This finding aligns with the research conducted by Phalet *et al.* (2010), wherein it was posited that the Muslim identity had a significant impact on the inclination of Moroccan Muslims residing in the Netherlands to endorse religious objectives while not exerting a similar influence on non-religious objectives. Furthermore, it is worth noting that Muslims have expressed their intention to engage in charitable donations in alignment with their cultural values and societal

norms, as evidenced by the research conducted by Osman and Muhammed (2017), Chapman *et al.* (2018) and Allah Pitchay (2022). The distinctiveness of the Muslim identity in the southernmost region of Thailand is readily apparent, owing to its dense population and extensive historical interconnectedness. Therefore, it is possible to enhance the donation collection for religious waqf projects among Thai Muslims residing in the region by emphasising the shared identity among Muslim donors and the advantages associated with these projects.

The research findings revealed that the presence of a warm glow was associated with a 1.6-fold increase in the probability of individuals contributing to religious initiatives. This finding aligns with previous research that has demonstrated a positive correlation between a warm glow and the willingness to donate to various conservation initiatives in Portuguese natural parks (Nunes & Schokkaert, 2003) as well as public libraries in Korea (Lee *et al.*, 2010). This suggests that contributors' cash waqf giving to waqf projects goes beyond religion, undermining the basic idea. Donors are motivated to donate to religious waqf projects by a brief feeling of delight or warm glow. Thus, a pleasant spark of contentment might increase Thai Muslim donors' willingness to provide financial waqf in the southern border regions.

POLICY IMPLICATIONS

To promote cash waqf donations effectively, it is essential to recognise the significance of economic conditions. Individuals with good economic standing, characterised by high incomes and low debt levels, represent a promising target group for waqf donations. Fundraising agencies should invest in efforts to raise awareness about waqf within this demographic. Moreover, implementing tailored financial incentives and tax deductions can be instrumental in reducing economic burdens on prospective donors, making it more attractive for them to contribute.

Prioritising after-life merit-based incentives in waqf campaigns is crucial. These incentives, rooted in Qur'ānic verses and the teachings of Prophet Muhammad (SAW), emphasise the spiritual rewards and eternal blessings for waqf donors. Utilising these incentives can motivate Muslims in Thailand's southernmost provinces to increase their willingness to contribute to cash waqf. By highlighting the profound and lasting impact of their donations in the hereafter, donation-driven organisations can inspire increased support for religious initiatives.

Mosques and religious organisations can play a pivotal role in reimagining the Muslim identity of potential donors in Thailand's southernmost regions. By framing waqf donations as a means to build and reinforce one's social identity, being a cash waqf donor becomes more than just a financial contribution. It transforms into a powerful expression of faith and a commitment to the community's well-being. This reframing can enhance the willingness of donors to support their mosques and religious organisations, as it strengthens their connection to their Muslim identity.

To achieve the most significant impact, policy initiatives should adopt a holistic and integrated approach. Combining economic incentives, after-life rewards, and identity-building efforts can create a comprehensive strategy that resonates with various segments of the population. Working together with the government, religious groups and non-profit organisations can help move these policies forward and encourage people to make regular cash waqf donations for religious causes and for the good of the community as a whole.

CONCLUSION

The outcomes of this study address the gaps in understanding the motivating factors behind cash waqf. The present study contributes to the existing literature by extending the findings of previous studies conducted by Sakti *et al.* (2016); Yusoff *et al.* (2017); Dennis *et al.* (2018); Allah Pitchay (2022) and Nour Aldeen *et al.* (2022). These studies have primarily focused on the influence of psychological and theological factors on individuals' intention to engage in cash waqf. However, this study further investigates the impact of additional variables, including economic factors, expected return in the afterlife, Muslim identity, and warm glow, on individuals' willingness to donate cash waqf.

A demographic characterised by favourable economic circumstances, including high salary and low debt, continues to be a desirable target population for the purpose of responding to potential waqf donors. In Thailand, it is advisable for waqf fundraising agencies to enhance waqf awareness among a specific demographic, as this group exhibits a greater inclination to contribute towards religious initiatives compared to individuals from the middle and lower socioeconomic strata. Furthermore, this discovery not only validates the correlation between religious factors and donation as observed in previous research but also broadens the scope by incorporating religious variables into the concept of the donor's anticipated reward in the afterlife, which can be analogously interpreted as an expected economic return.

Additionally, the findings of this study indicate that the prominence of Muslim identity plays a significant role in motivating individuals to contribute financial resources to support religious initiatives, specifically through cash waqf donations. The present study on cash waqf represents a novel contribution, as previous research in the field of behavioural studies (Phalet *et al.*, 2010) has identified similar patterns of association. Therefore, this research represents a seminal investigation in this particular field, aimed at comprehending the complexities of this association. The study has revealed an additional finding, which pertains to the identification of a positive emotional response in the motivational factors that influence individuals' inclination to contribute cash waqf towards religious initiatives. Previous scholarly investigations in the realm of warm glow or the emotional satisfaction derived from acts of altruism have frequently centred around studies within the field of public economics. This study demonstrates the potential applicability of the happiness derived from acts of giving to other domains within the field of human behaviour research, thereby contributing to the advancement of knowledge in the realms of giving economics and public economics.

Moreover, the incorporation of the Contingent Valuation Method (CVM) expands the domain of research on Islamic philanthropy beyond the confines of the attitude-intention framework, enabling the examination of non-market goods. Similarly, it can be utilised to analyse the reservation price associated with public goods and the inclination to contribute to cash waqf. The inclusion of a CVM model in this research serves to emphasise the notion that waqf, from an economic perspective, can be regarded as a public asset comparable to a public good. Additionally, this approach expands the range of research methodologies available for exploring various aspects within the domain of Islamic economics.

However, this study did possess several limitations. The focus of this study was initially limited to examining the contributions made by Muslim donors residing in the southern provinces of Thailand. To enhance the potential for generalisation of the study's findings, it is

recommended to broaden the sample and scope of the study by including additional regions within Thailand or even other countries that exhibit diverse cultural and socioeconomic contexts. Furthermore, the present study utilised cross-sectional survey data. However, it is important to note that this type of data may prove inadequate, particularly in the context of evaluating the impact of income or debt. It would be highly advantageous if forthcoming research endeavours were to employ longitudinal data in order to examine the dynamic impact of income and debt on individuals' propensity to engage in charitable giving.

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DECLARATION

Credit Authorship Contribution Statement

- Aris Hassama: Concept generation; Methodology; Gathering and analysing data; Manuscript writing.
- Nor Asmat Ismail: Manuscripts editing; Verification of research findings; Provision of additional resources.

Declaration of Competing Interest

The authors declare that they have no known competing financial interest or personal relationships that could have influenced the research work.

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Ethical Statement

The study has been reviewed and is hereby granted approval for implementation by the Jawatankuasa Etika Penyelidikan Manusia Universiti Sains Malaysia (JEPeM-USM). The study has been assigned study protocol code USM/JEPeM/21030261. This ethical approval is valid from 14 June 2021 until 13 June 2022.

Data Availability

Data will be made available on request.

Appendix

None

EXPLORATION OF A NEW ZAKAT MANAGEMENT SYSTEM EMPOWERED BY BLOCKCHAIN TECHNOLOGY IN MALAYSIA

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ABSTRACT

Purpose — This paper aims to examine the implementation of blockchain technology in zakat management and determine how it will work in the context of Malaysia. Although zakat institutions in Malaysia use technology, confidence in the efficiency of the zakat fund is still an ongoing issue. Therefore, the potential of blockchain technology for improving the zakat management system is examined.

Design/Methodology/Approach — An exploratory study involving two informants with expertise in blockchain technology and Islamic finance was conducted to investigate how the application of blockchain in the zakat management system will accelerate the future implementation and potential of zakat management in Malaysia.

Findings — This research finds an accord between the features of blockchain technology and the objectives of zakat. The features are transparency, traceability and security, which align closely with the goals of zakat. As such, a new model has been proposed for the zakat management system, one empowered by blockchain technology that harmonises with the existing system and enhances these elements.

Originality/Value — This research can motivate zakat institutions in Malaysia to implement blockchain technology in their zakat management systems by using the proposed model. The research shows the synchronisation of blockchain principles with zakat, which would build trust and confidence.

Practical Implications — The discussion on how blockchain can be embedded in the existing zakat management system will contribute towards enhancing zakat management in Malaysia and improve the performance of zakat institutions, enabling them to better serve the community. Given the scarce literature on blockchain adoption in zakat management, this study can spur further research and discussion within this area.

Keywords — Blockchain technology; Fintech; Islamic social finance; Zakat blockchain; Zakat management system

Article Classification — Research paper

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INTRODUCTION

Zakat is an act of *'ibādah* (worship), aimed at sharing prosperity and paving the way to a harmonious society. It is undeniably one of the effective social finance instruments in the Islamic economic system that facilitates the development of the Muslim community. Also known as almsgiving, zakat aims to ensure socio-economic justice through fair income distribution and wealth creation. Zakat payers must contribute 2.5 per cent of their wealth to eight unique categories of beneficiaries (*aṣṇāf*) (Al-Qaradawi, 2011). These groups comprise the *fuqarā'* (poor), *masākīn* (needy), *'āmilīn* (zakat collectors), *mu'allafat* (newcomers to Islam), *riqāb* (enslaved people), *ghārimīn* (debtors), *fī sabīlillah* (in the cause of Allah) and *ibn sabīl* (travellers in need) (Qur'ān, 9:60). While the objective of zakat is poverty alleviation, its end goal is also to gradually transform the *aṣṇāf* into zakat payers. Thus, an effective zakat management system is needed to ensure efficient collection, management and distribution of zakat.

Efficiency is nonetheless not the only arising issue in zakat management. Johari *et al.* (2015) and Bilo and Machado (2019) also highlighted the issue of transparency and implementation of a systematic zakat management. A crisis of confidence is another problem being discussed among zakat payers, arising from the allegation that zakat institutions mismanage the zakat fund and use it for their own advantage (Owoyemi, 2018). Scepticism about zakat fund management is leading many zakat payers to prefer to pay zakat directly to beneficiaries (Wahid & Sanep, 2014). This may eventually generate leakage in zakat collection, thus leading to an inefficient zakat management system (Abdul Hamid, 2017). Furthermore, zakat distribution is an ongoing problem as most of the poor people in Malaysia come from the Muslim population, raising questions about the implementation of the zakat system, which is not only not helping to reduce poverty but is also ineffective in transforming the zakat beneficiaries to zakat payers. According to the Ministry of Economy of Malaysia (2023), the poverty rate among Malay Muslims is 7.2 per cent higher than among other ethnicities.

Therefore, a new method is necessary to uplift the confidence in zakat management and that can bring about efficient, transparent and systematic zakat collection and distribution. To this end, the use of digital technology is proposed as a solution (Hudaefi *et al.*, 2019; Kailani & Slama, 2020).

Blockchain technology is a system that developed together with the Bitcoin cryptocurrency (Nakamoto, 2008). It is a decentralised ledger for storing and recording transactions, distributed across a blockchain system's network, with the benefits that it is immutable and challenging to hack, and it reduces costs (Sarmah, 2018; IBM, 2022). The use of blockchain technology is growing in many industries and it is believed that zakat institutions can also benefit from this technology as it brings forth competitive advantages and is consistent with the objectives of zakat.

Studies focusing on the potential of blockchain technology in zakat management and its effectiveness in facilitating a country's zakat management system are growing; nonetheless, they rarely discuss how blockchain technology is adapted within zakat management to make it work. Most of the research focus on countries such as Indonesia, and although there is increasing research in Malaysia, in-depth research is still lacking (Marhanum & Chowdhury, 2020). Zakat issues in Malaysia are primarily about the unavailability of data on each state's websites and their unattractive and non-communicative social media platforms (Laldin & Djafri, 2019; Lukman, 2020; Ibrahim & Zakaria, 2021). This shows that Malaysia is currently in need of a better zakat management system for users' convenience. As an immutable, transparent and

traceable technology, as discussed by Crosby *et al.* (2015), blockchain technology will facilitate better and more efficient zakat management. In addition, its adoption will be in conjunction with the capacities for the digital transformation of the Malaysian government.

Previous studies showed that blockchain technology brings many advantages and explained how it will work in the general interest of the business sector. Yet, how blockchain technology can be integrated into zakat management is rarely addressed. As such, this paper aims to discuss the potential of implementing blockchain technology and how it can be embedded in Malaysia's zakat management system. This discussion will, hopefully, increase the readiness of zakat institutions to better adapt to blockchain technology.

This research is organised as follows. The next section discusses the relevant literature on the zakat management system in Malaysia, digital zakat, and blockchain technology. The methodology is described thereafter. It is followed by the findings and discussion section. The final section concludes with suggestions for future research opportunities.

LITERATURE REVIEW

The Zakat Management System in Malaysia

Zakat was introduced in Malaysia in the 13th century within the Islamic framework, but detailed data on zakat management was limited, and zakat management itself was governed informally (Aidit, 1998; Ahmad & Mohd Nor, 2002). Initially, religious teachers were the people managing zakat affairs; goods would be delivered to them and then distributed according to the necessity of the *aṣnāf* (Aidit, 1988; Paizin, 2014). However, during the British colonial period, the aspect of religion and customs were gradually segregated and placed under the management of the department known as the State Religious Islamic Council (SRIC) or Majlis Agama Islam Negeri (MAIN). Until today, MAIN is responsible for managing and governing zakat collection and distribution in Malaysia. Specifically, MAIN is responsible for two leading roles in religious and custom affairs: (i) administration of the economic activities of the states, such as *ṣadaqah* (charity), zakat and waqf (Islamic endowment), and (ii) act as the Sultan's (the state ruler) advisor on matters related to Islam and Malay customs (Marhanum & Chowdhury, 2020).

Studies on the zakat management system in Malaysia discussed several aspects, such as administration, challenges and development of the zakat fund in society. For instance, Abd Wahab and Abdul Rahman (2011) discussed the weaknesses and issues faced by zakat institutions that must be addressed to ensure efficient zakat management. Lubis and Azizah (2018) compared the zakat management system in several countries, including Malaysia. They classified Malaysia as one of the countries adopting a decentralised approach, sharing the burden and responsibility in decision-making on equal terms. Meanwhile, Malaysia's zakat administration and management system has grown tremendously, particularly in terms of infrastructure, collaboration between states, and their function in economic development (Sarif *et al.*, 2020; Ab Rahman *et al.*, 2012).

Studies and research are continuously expanding and increasing, particularly with technological advancement, and most are trying to explore the potential opportunity of technology being implemented in zakat management. While several research studies have analysed technological development thoroughly in many countries, such as Indonesia, India and Saudi Arabia, this research will focus on adapting blockchain technology, as the latest available technology, to zakat management in Malaysia, to facilitate the rapid changes in digital zakat and to develop zakat as an effective Islamic social finance instrument to uplift the conditions of the *aṣnāf*.

Digital Zakat

As digital adaptation is growing in daily life, zakat institutions are also attempting to adapt technology for a more effective and systematic zakat management system. Studies analysing digitalisation are increasing nowadays due to the benefits felt by society, particularly the way technology usage facilitates daily tasks (Rohim, 2019; Santoso, 2019). Hence, researchers are inclined to study the technological changes in the financial services area, particularly in zakat affairs, discussing how the growing appearance of technology in zakat management will provide abundant benefits for the zakat payers and beneficiaries and assist in optimising zakat collection (Friantoro & Zaki, 2018; Yahaya & Ahmad, 2019; Hudaefi *et al.*, 2019; Hudaefi *et al.*, 2020).

Some researchers like Rachman and Salam (2018) also recommended developing a strategy that includes fintech in the zakat management system to refine and reinforce the performance of the zakat collector (*'āmil*) in collecting zakat. Furthermore, the use of online crowdfunding platforms will assist in maximising zakat collection and alleviating poverty in the society (Manara *et al.*, 2018). It should be noted that Muslim countries, such as Indonesia, Saudi Arabia and even Malaysia, have already welcomed the technological transformation of the zakat system, which is equipped with a zakat calculator, e-payment and zakat reminder, and in Saudi Arabia, an app or e-portal known as ZAKATY was launched to ensure better zakat collection (Bin-Nashwan, 2022). However, some studies debated that the innovation towards digitalisation in actual truth is lower than anticipated, even with the encouragement of technological changes, as trust in the system is still a crucial issue (Schaupp *et al.*, 2010; Uthman *et al.*, 2020; Bin Nashwan, 2022).

In addition, some studies discussed and mentioned the factors influencing digital zakat acceptance in society. For example, Kasri and Yuniar (2021) stated that the factors determining the intention of using digital zakat are performance expectancy, effort expectancy, facilitating conditions, and zakat literacy. This is supported by Tantriana and Rahmawati (2018), who discussed the preferences of zakat payers to use digital zakat, showing that zakat knowledge, the level of certainty, and the level of satisfaction prove effective with the preferences of zakat payers using digital zakat. Meanwhile, Naem (2019) mentioned that as a growing technology, social media will enhance the service quality among customers. This supports Hudaefi and Beik (2021), who averred that zakat campaigns are affected by the inclusiveness of digital content, and doing digital zakat campaigns will eventually benefit the society. The same goes for Al Anshory *et al.* (2020), who deliberated on the impact of social media and found that digital zakat campaigns will inevitably influence zakat payers in contributing to zakat.

The increasing number of studies on digital zakat show that technology is unavoidable and that zakat institutions should aim towards more digitalisation of their processes. Still, most research discusses general apps, social media or e-portals, and they do not include blockchain technology, which will be the focus of this paper. To achieve a more efficient and systematic zakat management system, blockchain technology, as stated, must be explored, and this paper will fill in the gap by examining how blockchain technology works in the zakat management system.

Blockchain Technology

Blockchain technology, known as distributed ledger technology (DLT), is a decentralised public ledger recording every transaction that will be distributed across every network existing in the blockchain system in an immutable, difficult-to-hack, secured, transparent and traceable way (Crosby *et al.*, 2015). This technology does not involve any third-party intermediary in the

recording of transactions and can thus facilitate the objectives of zakat, which are driven by the goals of fostering trust in the society, enhancing transparency and traceability, and managing security. Without third-party intermediation, blockchain technology will also help to build trust among users since human error will be eliminated (Mohamed & Ali, 2019).

It should be noted that blockchain technology was initially established as the foundation of Bitcoin, but nowadays, it can be confidently said that it is expanding beyond that into many other sectors (Nakamoto, 2008; Swan & de Filippi, 2015; Underwood, 2016; Rauchs *et al.*, 2018). Moreover, it is advancing by adopting data storage, smart contracts and resource management (Abojeib & Habib, 2019). The potential of its implementation can be spread in many industries, such as trade finance, capital markets, insurance and investment management (Mohamed & Ali, 2019). There is growing research globally on blockchain technology in various sectors, including Islamic finance instruments (Muneeza *et al.*, 2018; Chong, 2021; Dahdal *et al.*, 2021), healthcare (McGhin *et al.*, 2019; Dimitrov *et al.*, 2019), the music industry (Sitonio, & Nucciarelli, 2018), media content (Velasco, 2016), the diamond industry (Smits & Hulstijin, 2020), supply chain (Azzi *et al.*, 2019; Longo *et al.*, 2019), and governance (Van der Elst & Lafarre, 2017; Yermack, 2017).

Two main principles support blockchain technology, namely cryptographically signed transactions (Yaga *et al.*, 2018) and peer-to-peer (P2P) or shared data storage (Mainelli & Milne, 2016). Blockchain technology is a distributed system for capturing and storing a consistent, immutable, linear event log of transactions between networked actors cryptographically (Radius & Spohrer, 2017). As such, it can be deduced that blockchain technology is a transaction ledger that can be accessed and approved only by authorised parties. It guarantees high accuracy, as none of the entered transactions can be erased once approved (Rabbani *et al.*, 2020). Various studies discussed the advantages of implementing blockchain technology. For instance, Fanning and Centers (2016) stated that the system could function continuously without interference, and every transaction would be clear, trustworthy and transparent. In addition, Yermack (2016) mentioned how real-time blockchain transactions would benefit the corporate governance sector. Blockchain technology also provides a cost-saving benefit, eventually increasing the organisation's profit and allowing supervision and reducing information asymmetries among participants. Similarly, Ko *et al.* (2018) stressed that reduced cost and surveillance could be achieved using blockchain technology in the manufacturing sector. These studies show that blockchain technology brings many benefits if implemented in any industry. Therefore, zakat institutions, as organisations which are built on trust, can equally benefit from reduced organisation costs and supervision through blockchain implementation. These costs savings allow funds to be used for other purposes, such as marketing and awareness about zakat payment.

Simultaneously, implementing blockchain technology necessitates a comprehensive assessment of the challenges faced by zakat institutions to guarantee a seamless integration of blockchain technology within zakat management. According to Alaeddin *et al.* (2021), the lack of clear laws or policies is one of the main challenges of blockchain implementation. It has made financial institutions reluctant to adapt the technology into their system, as there are still no rules to regulate the technology to ensure it is safe to use. Besides, blockchain technology is a system that uses the internet as its main source, while in some countries, the unavailability of internet services is an ongoing issue, and when blockchain is implemented, it requires much effort and cooperation between parties to provide the service (Bakar & Rosbi, 2018). Other than that, the main concern in implementing blockchain technology is the cost, either in terms of infrastructure

cost (Gaur, 2020) or the cost in shifting from the existing system to the new system using blockchain technology (Schmidt & Wagner, 2019). For that reason, comprehensive research is important to ensure smooth adoption of blockchain technology in the area of zakat management.

The growth of the intention to adopt blockchain technology worldwide can be seen particularly in the Islamic finance sector. As one of the Muslim-majority countries, Indonesia has aggressively transformed its financial ecosystem by implementing blockchain technology in the use of various Islamic financial instruments. For instance, the Indonesian Islamic microfinance cooperative BMT Bina Ummah launched the first *ṣukūk* transaction with blockchain technology through the Smart Sukuk platform of Blossom Finance (Blossom Finance, 2018). Another example is the case of Masjid Ramadan, or Shacklewell Lane Mosque in London, which was the first to accept donations in cryptocurrencies using blockchain technology. Later, the digital currency had to be converted into Sterling Pounds to avoid volatility (CNN Indonesia, 2018). These implementation stories prove that blockchain technology has already begun to emerge in the financial markets; thus, the possibility of being implemented in the zakat management system is increasing, and more studies should be conducted, especially in the context of Malaysia.

Moreover, adapting blockchain technology in the zakat management system in Malaysia will be in tandem with the capacities for the digital transformation of the Malaysian government and realising the potential of the Industry Revolution 4.0 (IR4.0). As a matter of fact, there has been an attempt to implement the technology into the zakat management system in Malaysia, such as the collaboration of ISRA and SysCode in 2019 to launch ZakatTech, involving blockchain technology in zakat collection and distribution (Lubis & Azizah, 2018; ISRA, 2019). However, as of 2023, ZakatTech is yet to be launched for several reasons, especially because of legislative barriers since zakat affairs are bounded by state laws in Malaysia.

While many studies focused on the general concept as well as the advantages and challenges of blockchain technology, there remains a gap in the exploration of its implementation in zakat management. As stated, blockchain can be the alternative to achieve more systematic and better management in zakat affairs; thus, how it is embedded needs to be discussed and explained to guide future implementation. This research will focus on how the model of the zakat system empowered by blockchain technology is proposed to ensure a better and public-assured zakat management system.

METHODOLOGY

As blockchain technology is still new in Malaysia and, in fact, is still being proactively studied, the use of exploratory research is a preferred way to analyse how it works in the zakat management system. As qualitative research is inquisitive in nature, Creswell (2009) suggests the exploratory research design to explore the phenomenon. Moreover, exploratory research will be helpful to investigate a specific issue when studies delve into a novel and undefined topic or issue (Morse, 1991; Dudovsky, 2011). Therefore, a comprehensive exploratory approach, with interview as the primary instrument, is imperative to address the limited implementation of blockchain in zakat institutions in Malaysia.

Therefore, this research adopts in-depth interviews to conduct an effective observation and analysis of blockchain technology implementation in the zakat management system. It also applies the exploratory research design to inspect how blockchain technology will positively impact zakat management and how it will be integrated to benefit zakat collection and distribution, besides examining the blockchain phenomena thoroughly (Miles *et al.*, 2014).

Collection Methods

This research started with reviewing the literature on blockchain management, zakat management systems, and cases of zakat blockchain, if they existed, to identify the research gaps and observe the potential of blockchain implementation in the zakat management system. The following research questions were formulated to fill in the research gaps:

1. How will blockchain technology benefit the zakat management system in Malaysia and impact the society?
2. How can blockchain technology be integrated and work in the current zakat management system in Malaysia?

In-depth interviews were conducted with two informants who are experts in blockchain technology and Islamic finance to explore how the technology can be implemented in the zakat management system. The interviewees were chosen based on the objective of the research to understand blockchain implementation in the zakat management system from a technical perspective. The interview sessions were carried out in November 2022 at the Kulliyah of Information and Communications Technology (ICT) of the International Islamic University Malaysia (IIUM), Gombak. Each session lasted for approximately two hours. **Table 1** lists the details of the informants.

Table 1: List of Informants for In-depth Interview Sessions

Experts	Area of Specialisation	Informants Coding
IT1	<ul style="list-style-type: none"> • ICT applications: Finance and insurance; Fintech; Blockchain; E-Government; E-commerce; ICT issues and Islam • ICT policy and social impact: ICT ethics; ICT and Islamic ethics 	Informant 1
IT2	<ul style="list-style-type: none"> • ICT: Emergent information technology; Knowledge base; Distributed computing; Cloud computing; Grid computing • Economics, business and management: Management information system; ICT & Islam; Green computing 	Informant 2

Source: Authors' own

During the interviews, the informants were asked critical research questions and further probed with sub-questions. The interviews involved IT experts to ensure correct and accurate information can be obtained on the integration of blockchain technology in the zakat management system. It ensures that the proposed model of a new zakat system can guide zakat institutions during the implementation process. The following are the interview questions asked during the in-depth interviews:

1. What is your understanding and knowledge of blockchain technology? What is your opinion on the suitability of implementing blockchain technology in the zakat management system? How will it affect zakat management in Malaysia?
2. How will the use of blockchain technology contribute to increased trust of zakat payers?
3. What is your opinion on the transparency and traceability elements that blockchain technology will provide, and how does it work in the zakat management system?
4. What do you think of the data-sharing process in blockchain technology, since it is a decentralised database or distributed ledger across the network that will manage the payment and zakat distribution?
5. What safety precautions must be taken to prevent data loss or hacking issues in the zakat management system?

FINDINGS AND DISCUSSIONS

Attributes of Blockchain Technology in Zakat Management

Transparency

Building the society's trust in zakat institutions will be related to transparency. Various studies focused on transparency as their core study, either in organisational governance or the financial market (Bloomfield & O'Hara, 1999; Jordan *et al.*, 2000; Bushman *et al.*, 2004; Nicolaou & McKnight, 2006; Potosky, 2008). Transparency is defined as the availability and disclosure of accurate organisational information in real-time so that it can be verified and accessed by the public and act as a communication channel between that organisation and society (Potosky, 2008). Transparency is necessary to ensure that organisations work at their best, enhancing the public's confidence. Schnackenberg and Tomlinson (2014) stated that effective management would lay stress on three main elements to ensure transparency: information disclosure, clarity and accuracy. Furthermore, some studies emphasised that transparency would escalate the aspect of good governance in an organisation as it would provide clear and readily available information about its activities, structures and performance to stakeholders, which will eventually lead to confidence and reputational building in society (Piotrowski & Van Ryzin, 2007; Carroll & Shabana, 2010).

Considering that zakat institutions are classified as an organisation primarily based on public confidence, transparent reporting is necessary and crucial for public access to ensure that the zakat fund is being used and managed appropriately. Therefore, some research (e.g., Naz'aina, 2015) has highlighted the importance of internal control and the capability of the *'āmil* to manage the zakat fund, proving the necessity of accountability and transparency of zakat institutions. Lewis (2006) stressed the importance of accountability in zakat institutions, either from the perspective of zakat collection or distribution. Furthermore, transparency is not only a way to be accountable to the public; ultimately, it is a means of being accountable before Allah. Thus, each zakat institution must be transparent in providing sufficient, accurate and available information about the zakat fund for tracking purposes to achieve transparency towards the society and consequently to Allah (Abd Wahab & Abdul Rahman, 2011). This fact is supported by the experts, who stated how zakat payers seek and desire transparency in the zakat management system, particularly on the aspect of zakat fund management:

'What I want to know regarding zakat is where my zakat payment would go. I believe this expectation can be met using blockchain technology compared to other available digital platforms. I will give you an example. Let's say we contribute RM10,000 to the zakat institution; by using blockchain, the payment trail can be known; the digital fingerprint firstly goes to the *'āmil*, then the zakat institution, and more. So, from the zakat amount of RM10,000, I will know that RM1,000 will be distributed to this...another RM1,000 will go to somewhere else...I do not want to be proud and arrogant about my contribution, but I want a transparent process in the zakat institution...transparency can build trust...' (Informant 2).

'If I am paying my zakat, and we have the blockchain platform, that would be a chance for us to know where our money goes...because we can trace the movement from A to Z...' (Informant 1).

Informant 1 further added:

‘In a transparent system, let us say when I pay RM1,000...at the end of the day, I will know the amount that goes to the *faqīr* or *miskīn*...I do not care if the zakat is being distributed in Kelantan or Terengganu...as long as it is going to the intended *mustahik*... indirectly, we, as zakat payers, will be more confident with the management...I can be assured that the zakat funds are not being accumulated and are being distributed appropriately...’
(Informant 1).

Blockchain technology serving as a public distributed ledger can be the tool to ensure transparency due to its principles, such as transparency, immutability and traceability. Besides, the element of decentralisation and eliminating third-party interference in blockchain technology will play an essential role in achieving transparency, and in fact, it can indirectly minimise the risk of human error, fraud and issues in managing data (Fischer, 2018; Hambiralovic & Karlsson, 2018). This is because blockchain technology will provide real-time updates of each transaction, which will consequently eliminate human error, deliver reliable processes and ensure accurate information (Deloitte, 2016; Demirkan *et al.*, 2020). This process is especially needed in the zakat collection and distribution process to enhance trust in the society. It is much required for zakat institutions that manage the public contribution for survival.

The distributed ledger in the blockchain technology and the consensus algorithm will warrant each transaction to be accountable and transparent as it will be built and gathered as a block. Therefore, the possibility of it being manipulated and disguised is close to zero, and this will safeguard the contribution from zakat payers. Furthermore, blockchain technology will assure zakat payers that their zakat payments are intended for the *aṣnāf*'s well-being. Currently, each zakat institution depends on its own server and database, which will not be the case under blockchain technology. Besides, as it is a distributed ledger, all data will be recorded simultaneously on every blockchain network, and everyone in the network will be able to see the transactions which have been carried out. Thus, implementing this feature will instil assurance and build confidence among zakat payers, who can trace the end-to-end process from the zakat collection to its distribution. The experts also emphasised how the implementation of blockchain technology in the zakat management system will change the dynamics of zakat collection and distribution. The following statements were recorded from Informant 2:

‘...that is why most people hesitate to let people know what they have done in an organisation...they do not like transparency as if people will question them, but the way blockchain technology functions is to provide transparency...blockchain will help...’
(Informant 2).

‘...blockchain transaction is, of course, in real-time, and to see this element of transparency of blockchain technology can be related to the story of Prophet Sulaiman on how the throne of Balqis from Saba’ can be brought in real-time to Baitul Maqdis...’ (Informant 2).

In addition, as blockchain technology practises decentralisation and an open system, everyone permitted in the system can access the data. It will encourage accountability of zakat institutions and ensure that the zakat fund is governed according to Islamic principles. Furthermore, it can also act as a tool to avoid any misuse, mismanagement and dishonesty in the course of the collection and distribution process; in fact, blockchain solutions will empower zakat payers to receive zakat distribution data that would match with their payment.

Consequently, integrating blockchain technology will lead to better and more efficient zakat management as it will increase accountability and transparency. This is supported by Al-Shbail & Aman (2018) who confirmed that using technology would surely increase accountability and transparency.

Traceability

Traceability is usually related to the food and supply chain industry and the agricultural sector (Montet & Dey, 2018). It is commonly discussed in the context of disease outbreak prevention, and thus, most of its definitions are found in those industries (Olsen & Borit, 2018). For instance, Opara (2003) stated that traceability requires six components to ensure its comprehensiveness: product, process, genetics, input, disease, and measurement.

Nevertheless, traceability is becoming an important risk management tool beyond those industries, such as in the medical, electronics and automotive industries. Therefore, some modern scholars have defined it as ‘the ability to access any or all information relating to that which is under consideration, throughout its entire life cycle, employing recorded identifications’ (Oslan & Borit, 2013, p. 148). Meanwhile, some studies discussed the difference between traceability and trackability, such as Stefansson and Tilanus (2000) and Schwägele (2005), who stressed that tracking is the movement of data from a starting point to its destination. However, tracing is more towards finding and identifying the origin of that data to ensure it is constantly updated. Relating to that, traceability is the combination of where the source of particular data is recorded, followed from the beginning to the intended location, to ensure its provenance, thus building consumer trust.

When discussing zakat institutions, it is essential to note that traceability is one of the significant ongoing issues, as zakat payers still need more confidence in the management of zakat institutions. Accordingly, blockchain technology will create an audit trail of the transaction, specifically the movement in the zakat fund. It will ensure that at every step of the process, from the payment to the distribution stage, zakat payers and stakeholders can trace and track the fund, instilling the confidence of zakat payers. Studies highlight that when blockchain technology is integrated with the existing platform or process, it indeed traces and tracks each transaction so that everyone in the network can trace every step of the transaction (Tsai *et al.*, 2016; Ismailisufi *et al.*, 2020; Elghaish *et al.*, 2020). Therefore, zakat payers can be assured of the use of their funds and can trace the proceeds, regardless of their geographical location, through the provided platforms or websites, at their fingertips.

It should be noted that while blockchain technology will instil traceability, it will simultaneously allow the system to identify zakat payers and *aṣnāf*, respectively. It will ensure the smooth execution of zakat collection and distribution, and eventually, prevent mismatched data, double-spending and mismanagement of the zakat fund. Our experts also highlighted this, stressing the significance of traceability in the zakat management system, as the zakat fund is from the public, and zakat institutions must manage it with due care and diligence. Regarding zakat as *ibādah* to Allah, everyone, whether zakat payers, *aṣnāf* or zakat institutions, bears responsibility for their actions and will be held accountable in the hereafter. Informant 2 highlighted the following:

‘Blockchain technology can be described as an app...when I go to the zakat institution’s platform, I can click on the website...some sort of interface...where my money will go... this is because I want to know, up till now, how much I contribute to the society and where

that money goes, and thus I can re-evaluate myself and motivate myself to do better in the future...this is where the trust will be enhanced...' (Informant 2).

'Yes...blockchain technology can trace money....Why are you hesitating to use this technology?...You are supposed to be proud of the advancement...What is it that you want to hide?...The zakat fund is from the society, and in the hereafter, you will be asked how you managed the fund....It would be best if you were responsible, while blockchain technology will facilitate to ease your responsibility.' (Informant 2).

'...Blockchain technology, Internet of Everything (IOE) and artificial intelligence (AI), all of this technology is supposed to bring us closer to Allah and to do good deeds as it will ensure us to be transparent and traceable...' (Informant 2).

Security

Ensuring data security in an organisation is essential. Especially with the rapid exposure of technology used by society, security has become a major issue. Accordingly, blockchain technology can be one instrument warranting security in any platform because it is immutable and built on a cryptographic algorithm. It will make it nearly impossible for hackers to alter any information in the network since they need to hack each of the blocks available in the system, which is a computationally intensive task. Therefore, tampering with data stored in blockchain technology is almost impossible, thus, making it safe and providing better security for any organisation. Our experts also encouraged the use of this technology to provide a better system and avoid cybersecurity issues since blockchain technology uses the algorithm and cryptographic key that help build better and immutable transactions of that blockchain across every ledger in the network. Informant 1 stated:

'As of now, because of blockchain technology...and the algorithm they are using...the cryptography seems to be unbreakable...so this helps on the aspect of security.' (Informant 1).

The element of decentralisation in the blockchain technology operating on a consensus mechanism will require every participant involved in the network to agree on the validity of a transaction or any information before it is added. This will prevent data manipulation as the blocks are related and will ensure that the network operates securely and transparently. Thus, every transaction recorded in the cryptographically distributed database will allow all stakeholders to verify and validate the accuracy of all information and prevent available information from being removed and tampered with (Chong, 2021). Furthermore, operating a system authorising every participant in the blockchain network to trace and view every transaction in real time will be beneficial, particularly regarding a secure and transparent charity model (Beik *et al.*, 2019).

Therefore, implementing blockchain technology in the zakat management system is becoming necessary and can facilitate better security of the zakat fund, either at the stage of collection or distribution. Furthermore, when blockchain operates on cryptographic and consensus algorithms, it enhances the resilience of zakat organisations by providing a secure and immutable system for managing contributions from the society. Since it works on a decentralised network, there will be no third-party interference, and every piece of data in the network will be immutable, thus, avoiding attacks and data breaches. While it provides a secure method of data

management, the verification by every participant involved will ensure that every step of the process is transparent, immutable, tamper-proof and traceable. The security element will assure zakat payers' confidence and trust in the security of the zakat management and eventually encourage them to pay their zakat to zakat institutions. The informants accordingly highlighted the following:

'...when it comes to blockchain technology, it should be noted that it cannot be changed. It means...or is described as a debt book (*Buku 555*) in a restaurant that records each transaction where you cannot change the recorded details. However, this can be tampered with by someone who records the transaction, and in fact, the record is limited to that particular place. This is different with blockchain technology, where it is almost impossible to tamper with and much better as the records are updated and go beyond a particular place. If the restaurant is in my village, Permatang Pauh, using blockchain will ensure the transactions are being updated everywhere, whether in New York, Australia or anywhere else...it never changes...This helps build trust because people know it can never be changed...' (Informant 2).

'When someone tries to hack the system, the aspect of decentralisation will help...in a general perspective, if we have 14 databases...similar to 14 states...once I made a payment in the blockchain environment, those payments will be safe as what they call a block. So those blocks will be copied into all those 14 stations. Under the current practice, if you want to tamper with the data at a certain station, you can go to one point only, but not with the blockchain network...in the blockchain network, if you want to change even one transaction in the network, you have to go to every station and change it. Can you imagine if you have 1,000 stations and the tampering must be done in a short time?...The tampering can be difficult because the transaction will keep changing, and this is the security of blockchain.' (Informant 1).

Implementing blockchain technology in the zakat management system will provide a better security and tamper-proof system for governing the zakat fund and will ensure that its misuse is avoided. In addition, having a multiple verification and validation system will ensure every zakat payer or *aṣṇāf* is identified correctly, ensuring the fund is distributed and managed appropriately. Zakat is a contribution from the society, thus, requiring zakat institutions to provide the best management system. If blockchain technology can provide an immutable, secure, transparent and traceable system, it should be explored and executed at the soonest for the zakat fund to play its role in the society.

Model of a New Zakat System Empowered by Blockchain Technology

Considering the benefits brought about by blockchain technology, this study leverages on blockchain technology to propose a more effective model of the zakat management system in Malaysia. Blockchain technology in this model will function as an underlying technology facilitating zakat institutions to manage the data of zakat payers and *aṣṇāf* appropriately and to improve zakat collection and distribution services.

When a zakat transaction is entered into a blockchain network, it will be identified and verified by the participants involved and added as a block. It will be combined with the existing blockchain creating a chain of blocks. It should be noted that the entered transaction cannot be altered, as it is immutable and secure from any alteration. As it is operated on a decentralised

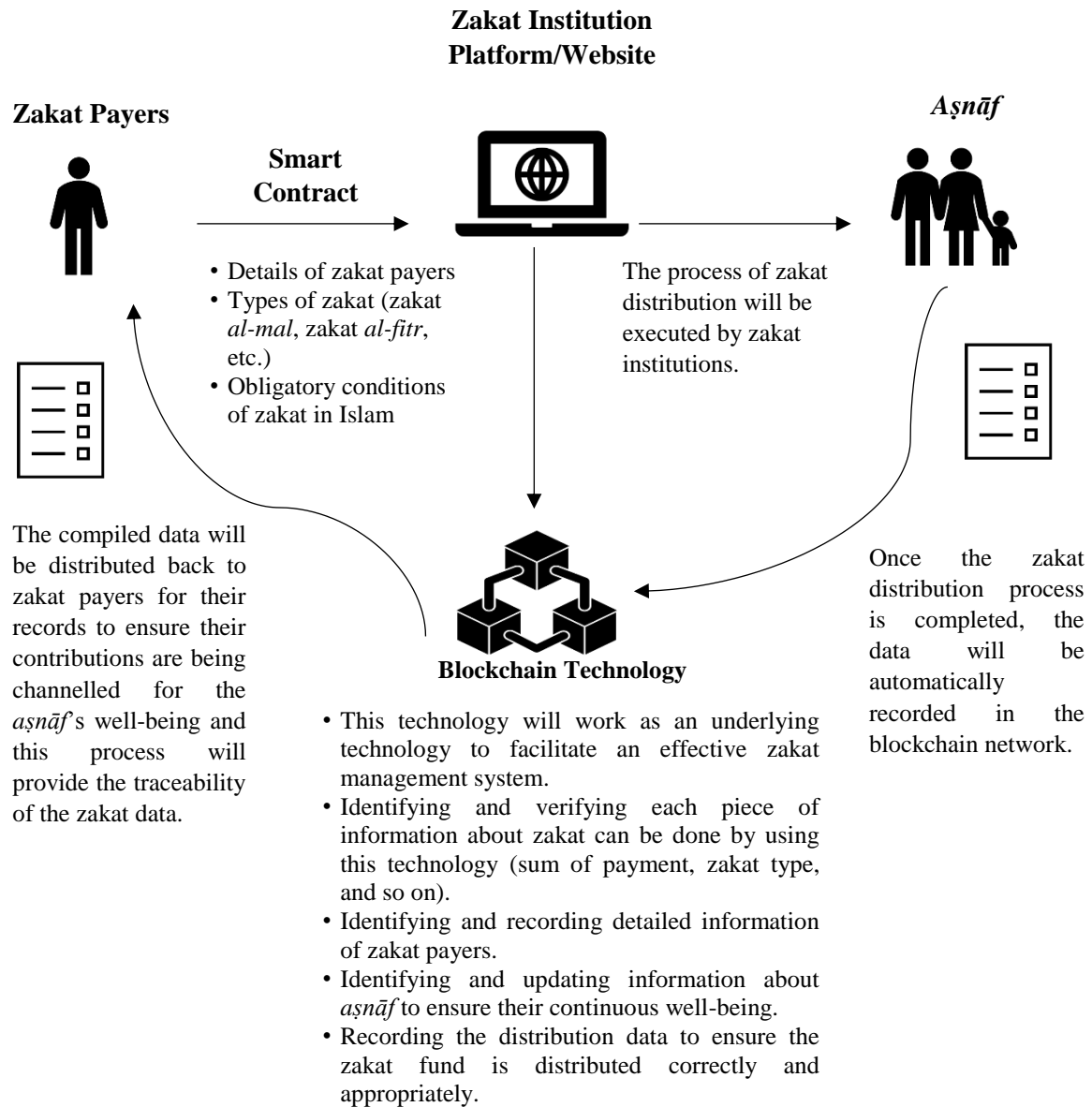
system, from and to the end users themselves, the transaction will be transparent as it does not require the involvement of third parties. Simultaneously, the zakat transaction will be traceable as the end-users can directly track its movement from A to Z. Thus, the data history from the collection point to the distribution will be given back to the zakat payers to safeguard and ensure the zakat fund is being used appropriately and for the intended purpose of the *aṣnāf*'s well-being.

Figure 1 illustrates the proposed model of how blockchain technology will be integrated into the zakat management system in Malaysia. The model has been developed based on the data analysis and literature review. Under the proposed model:

1. The system will be initiated when the zakat payer contributes his/her fund. The zakat payer can effect the zakat payment through the platform of preferred zakat institutions.
2. While the zakat payment is being processed, a smart contract that comprises an agreement with the zakat payer will be executed to ensure that the transaction can be smoothed. The smart contract will include the details of the zakat payer, the zakat type, and obligatory conditions of zakat in Islam. Therefore, to activate the zakat system, the zakat payer must fulfil every condition.
3. The zakat institution will complete the zakat fund distribution to the intended categories of *aṣnāf*. Under certain circumstances, the zakat institution as the distribution authority may prioritise specific categories of *aṣnāf*, especially the poor and needy, to ensure social justice in the society.
4. Meanwhile, blockchain technology will serve as the underlying technology of zakat institutions' platform to manage transactions transparently, with traceability and security. The blockchain network will identify, verify and record each transaction entered through the platform as an immutable block. The identity of zakat payers and the *aṣnāf* can be verified and recorded through blockchain technology to ensure data authenticity and ensure the data will be constantly updated. While zakat institutions are executing the zakat distribution process, blockchain technology will also record the transactions and information of distribution, and this will ensure transparency and accountability of zakat institutions as no changes or alterations can be made using the blockchain technology in the system.
5. Therefore, as the transactions of collection and distribution are recorded and verified using blockchain technology, complete details will be provided to zakat payers for their record and safekeeping. This record ensures the traceability of the zakat fund movement and will enhance public confidence in the zakat management system.

Zakat institutions can execute the proposed model as it does not bring about much change to the existing system that uses online zakat payment either through the websites of zakat institutions or by using zakat agents such as online banking and e-commerce platforms. The proposed model is user-friendly as zakat payers will not be affected by the new system. Rather, it will offer an improved system that will enable zakat payers to track and trace their payment records and the details of the zakat distribution. Moreover, as the system records and updates detailed information on the *aṣnāf*, the zakat collection and distribution processes will always maintain accuracy and avoid mismatched, mismanaged, and double-spending issues.

Figure 1: Proposed Model of a New Zakat System Empowered by Blockchain Technology



Source: Authors' own

CONCLUSION

To sum up, it is undeniable that blockchain, a decentralised public distributed ledger, will bring various benefits when implemented in an organisation; the same goes for zakat institutions. As confidence of zakat payers towards zakat institutions is the main issue that needs to be resolved, blockchain technology may facilitate in building trust in the zakat management system. Therefore, this research proposes a new model of zakat management, empowered by blockchain technology. This model leverages on blockchain as the underlying technology to ensure transparency, traceability and security of each zakat transaction within the zakat management system. This study facilitates the understanding of how blockchain technology can be embedded within the existing zakat management system to enhance its performance and effectiveness.

This study is limited to coordinating the blockchain core elements with the zakat management system while proposing a new model of the zakat management system empowered by blockchain technology. Further research should focus on the empirical data and measure the readiness of the society and zakat institutions to use blockchain technology. Additionally, further research on other suitable models of blockchain zakat should be undertaken to diversify the available model and provide zakat institutions with choices to accelerate blockchain implementation in the zakat management system.

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DECLARATION

Credit Authorship Contribution Statement

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- Shifa Mohd Nor: Conceptualization, Write up, Methodology, Interviews, Project overview, Presentation of findings, Analysis, Writing-original draft, Review and editing.
- Aisyah Abdul-Rahman: Methodology, Interviews, Validation, Review and editing.
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- Siti Ngayesah Ab. Hamid: Methodology, Interviews, Validation, Review and editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interest or personal relationships that could have influenced the research work.

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Data Availability

None

Appendix

None