EDITORIAL ADVISORY BOARD

Habib Ahmed Durham University Business School, Durham University, UK

Sami Al-Suwailem Islamic Research and Training Institute (IRTI), Saudi Arabia

Mohammad Kabir Hassan Department of Economics and Finance, University of New Orleans, USA

Mansor H. Ibrahim International Centre for Education in Islamic Finance (INCEIF), Malaysia

Mervyn Lewis University of South Australia Business School, University of South Australia, Australia

Philip Molyneux College of Business Administration, University of Sharjah, UAE

Volker Nienhaus University of Marburg (retired), Germany

Sayyid Tahir International Institute of Islamic Economics, International Islamic University Islamabad, Pakistan

ADVISORY BOARD

Khurshid Ahmad Ex-Senator, Islamic Republic of Pakistan, Pakistan Mohamed Ariff

Distinguished Fellow of the Malaysian Institute of Economic Research (MIER), Malaysia M. Umer Chapra Ex-Advisor, IRTI, Saudi Arabia Seif I. Tag el-Din Al Imam Muhammad Ibn Saud University, Saudi Arabia

Mohamed Ali Elgari Consultant, National Management Consultancy, Saudi Arabia

Tariqullah Khan Professor, Qatar Faculty of Islamic Studies, Qatar

Abbas Mirakhor International Centre for Education in Islamic Finance (INCEIF), Malaysia

John R. Presley Emeritus Professor, Loughborough University, UK

M. Nejatullah Siddiqi Emeritus Professor, King Abdul Aziz University, Saudi Arabia

Rodney Wilson Emeritus Professor, Durham University, UK

Abdel-Rahman Yousri Qatar Faculty of Islamic Studies, Qatar

M. Anas Zarqa Ex-Professor, King Abdul Aziz University, Shariah Advisor, Kuwait

M. Umar Zubair Ex-Rector, King Abdul Aziz University, Saudi Arabia



Islamic Economic Studies Vol. 28 No. 2, 2021 p. 101 Emerald Publishing Limited e-ISSN: 2411-3395 p-ISSN: 1319-1616

Editorial advisory boards

The current issue and full text archive of this journal is available on Emerald Insight at: https://www.emerald.com/insight/1319-1616.htm

IES 28,2

Human well-being, morality and the economy: an Islamic perspective

Haithem Kader

Islamic Finance, Hamad Bin Khalifa University, Doha, Qatar

Received 13 July 2020 Revised 21 September 2020 Accepted 13 February 2021

Abstract

Purpose – This study argues that in order to address the problems associated with the modern market economy at their core, such as persistent poverty, growing inequality and environmental degradation, it is imperative to re-assess the well-being and moral philosophy underpinning economic thinking. The author attempts to offer a preliminary way forward with reference to the Islamic intellectual tradition.

Design/methodology/approach – This study employs content analysis of classical and contemporary Islamic texts on human well-being and economic ethics to derive a conceptual well-being model. The paper is structured in four sections: section one provides an overview of relevant secondary literature on moral economic approaches; section two outlines the main well-being frameworks; section three discusses the concept of human well-being in Islam informed by the Islamic worldview of *tawhād*, the Islamic philosophy of *saʿādah*, and the higher objectives of Islamic Law (*maqāşid al-Sharīʿah*); and finally, section four discusses policy implications and next steps forward.

Findings – A conceptual model of human well-being from an Islamic perspective is developed by integrating philosophical insights of happiness ($sa^{\bar{a}}dah$) with an objective list of five essential goods: religion ($D\bar{n}n$), self (Nafs), intellect ('Aql), progeny (Nasl) and wealth ($M\bar{a}l$) that correspond to spiritual, physical and psychological, intellectual, familial and social, and material well-being, respectively.

Research limitations/implications – Further research is needed to translate this conceptual model into a composite well-being index to inform policy and practice.

Practical implications – This model can be used to review the performance of the Islamic finance sector, not solely in terms of growth and profitability, but in terms of realising human necessities, needs and refinements. It can also provide the basis for the Organisation of Islamic Co-operation (OIC) countries to jointly develop a well-being index to guide national and regional co-operation. More generally, this study highlights the need for research in Islamic economics to be more firmly rooted within Islamic ontology and epistemology, while simultaneously engaging in productive dialogue with other moral schools of economic thought to offer practical solutions to contemporary challenges.

Originality/value – This study offers three aspects of originality. First, by outlining well-being frameworks, it highlights key differences between the utilitarian understanding of well-being underpinning modern economic theory and virtue-based understandings, such as the Aristotelian, Christian and Islamic approaches. Second, it provides a well-being model from an Islamic perspective by integrating the Islamic worldview of *taubīd*, the Islamic philosophy of *saʿādah*, and the higher objectives of Islamic Law (*maqāsid al-Shaīī'ah*). Third, it proposes an ethical framework for informing economic policy and practice.

Keywords Well-being, Moral economy, sa'ādah, Maqāsid

Paper type Research Paper



1. Introduction

The meaning of well-being and the means towards its improvement have been at the heart of intellectual enquiry from ancient philosophical and religious traditions, to modern natural and social sciences. While the improvement of human well-being can be considered a

Islamic Economic Studies Vol. 28 No. 2, 2021 pp. 102-123 Emerald Publishing Limited e-ISSN: 2411-3395 p-ISSN: 1319-1616 DOI 10.1108/IES-07-2020-0026 © Haithem Kader. Published in *Islamic Economic Studies*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

JEL Classification — B0, O1, P4. KAUJIE Classification — B0, B3

primordial individual and collective goal, its precise meaning and the means of achieving it have differed. A basic definition of well-being is "the state of being comfortable, healthy or happy" (Oxford Living Dictionaries, 2018). Some of the most prominent understandings of well-being in the Greek, Christian and Muslim traditions include *eudaemonia*, *felicitas* and *saʿādah*, as discussed by the likes of Aristotle, Aquinas and al-Ghazāli, respectively. At the core of these understandings is the belief that living well entails living virtuously. In turn, economic activity is understood as being embedded in the domains of morality and ethics. However, with the rise of the utilitarian philosophy in Europe in the 19th century, well-being became synonymous with individual hedonistic pleasure and desire-fulfilment. This facilitated the process of the economy becoming disembedded from the social and ethical realms through the process of commodification (Polanyi, 2001). Furthermore, market incentives such as profit-seeking, crowd out non-market values, such as altruism, causing market economies to produce market societies where material values dominate all aspects of life (Sandel, 2012; Satz, 2010).

This study argues that in order to address the problems intrinsic to the modern market economy at their core, such as persistent poverty, growing wealth inequalities and environmental degradation, it is imperative to re-embed the economy within a moral wellbeing philosophy. It attempts to offer a preliminary way forward with reference to the Islamic intellectual tradition through content analysis of classical and contemporary Islamic texts.

2. Literature review

This study is informed by moral approaches to economic thinking that challenge the dominant epistemology underpinning the modern economics discipline. In Ethics and Economics (1987), Amartya Sen criticises the "engineering approach" of neoclassical economics, which adopts a positivistic epistemology and avoids directly addressing ethical problems. He questions certain fundamental concepts within economics, such as the concept of rational choice, which holds that maximisation of self-interest is rational to the exclusion of anything else. He also finds fault with concepts such as Pareto optimality, economic efficiency and utility-maximisation in modern welfare economics. He argues that utility-judged in terms of the metric of subjective happiness and desire fulfilment-is an insufficient criterion for assessing well-being: "while happiness and the fulfilment of desire may be valuable for the person's well-being, they cannot - on their own or even together - adequately reflect the value of well-being" (Sen, 1987, p. 47). Furthermore, he argues that ethical considerations can impact on economic behaviour which are unaccounted for in mainstream economics informed by utilitarianism. Sen seeks to address these problems through the capabilities approach which places emphasis on unlocking human freedoms as opposed to raising utility. It integrates the Aristotelian notion of human functioning, focusing on what a given human being is or does [1]. It has generated a vast literature, in both theoretical and practical studies, and informed the human development approach which was adopted by the United Nations Development Programme (UNDP). However, a potential limitation of this approach is that well-being remains somewhat vague and subjective, especially from the perspective of a religious tradition, such as Islam, which details human nature and the requirements for living a good life (hayat tayyiba).

The moral economy approach is a related body of scholarship inspired by Karl Polanyi's insights. Emphasising the human being's social nature, Polanyi argues that "man's economy, as a rule, is submerged in his social relationships" (Polanyi, 2001, p. 48); the dominant "transactional modes" prior to the creation of the modern market economy were based on reciprocity, redistribution and house-holding to meet sufficiency, rather than on competitive profit-seeking. Scholars of moral economy carried Polanyi's arguments forward against the economic orthodoxy by emphasising the interplay of values, culture, history and institutions

Human wellbeing, morality and the economy

in economic life (Baum, 1996). Similar to Sen's approach, the moral economy approach is considered a "(loosely) Aristotelian economic theory in opposition to rights-based arguments that at present command the horizon of normative economic theorising" (Booth, 1994, p. 653). Booth (1994) clarifies the meaning of "moral economy" as a type of enquiry into economics which recognises how moral dispositions, values and norms influence and are influenced by economic activities (Booth, 1994). This approach acknowledges that all economies are moral economies in a broad sense, given that they are influenced by a range of norms, values, commitments, conceptions of the good and well-being. Yet, its exact nature depends on the particular worldview, conception of well-being and moral philosophy. It therefore, brings ethics to the forefront of economic theorising.

Islamic economics literature can be considered as a branch of moral economy thinking informed by the Islamic worldview. According to Wilson, Islamic economics is "a distinct school of thought, with a coherent set of ideas, both moralistic and proscriptive" (Wilson in Peil and Van Staveren, 2009, p. 283). There is a general agreement among Islamic economists that the overarching goal of the economy is to realise inter-temporal well-being – encompassing this temporal life and the everlasting hereafter–commonly denoted by the term *falāh* (lit. "success"). For example, according to Muhammad Akram Khan (1994) *falāh* is a multi-dimensional concept which has various spiritual, economic, cultural and political dimensions. Similarly, Umar Chapra uses the concept of *falāh* to denote "real well-being of all the people living on earth" which includes material components of well-being, such as income and wealth, as well as its spiritual and non-material components (Chapra, 2008a, b, p. 1).

To achieve falah Islamic economists have developed an axiomatic approach to define the framework in which economic activity takes place (Asutay, 2007). For example, Naqvi (1981) outlines four axioms: tawhīd - unity, 'adl wa ihsān - equilibrium and beneficence, ikhtiyār free-will and *fard* – responsibility. Ahmad proposes *tawh* $\bar{i}d$ – God's Oneness and Sovereignty; $rub\bar{u}biyyah$ – "divine arrangements for nourishment and sustenance and directing things towards their perfection"; *khilāfa* – man's role as vicegerent of God on earth, including his roles and responsibilities, and; tazkiya - "growth towards perfection through purification of attitudes and relationships" (Ahmad, 1980, 1994, p. 20). Mirakhor and Askari use walayahh, -"unconditional, dynamic, active, ever-present Love of the Supreme Creator for His Creation"; $kar\bar{a}ma$ – man's dignity and intelligence; *meethaq* – the primordial covenant between man and the Creator and $khil\bar{a}fa$ – the agent-trustee relationship (Mirakhor and Askari, 2010). All of these approaches provide somewhat complimentary conceptual foundations of an Islamic economy. These axioms are combined with the various moral rules and principles from the Sharīʿah that pertain to the economy to inform how an Islamic economy may be actualised. However, scholars, such as Sardar (1985), have questioned the rationale behind the selection of axioms. Sardar argues that Islamic economics must go beyond a narrow discpline, to "an integrated field destined to become a pillar of Muslim civilisation" (Sardar et al., 2003, p. 43).

This endeavour requires awareness of classical Islamic economic thought to gain insights from Muslim scholars throughout the centuries who successfully integrated the Islamic worldview and moral philosophy in their analysis of economic matters (El-Askhar and Wilson, 2006; Islahi, 2014; Aydin, 2010, 2013). In this regard, Adi Setia consults the genre of mediaeval ethico-juristic treatises to set a sound metaphysical and philosophical basis upon which to conceptualise an "Islamic Gift Economy" as a sphere where private interest is integrated into public interest and economics is conceived as the "science of earning and provisioning for the common good" (Setia, 2009, p. 165). In particular, Ibn Khaldūn's "science of civilisation" (*'ilm al-'umrān*) provides a highly relevant multidisciplinary approach that integrates elements of political economy, moral economy and institutionalist approaches (Kahf, 2003; Alatas, 2006; Asutay, 2007; Chapra, 2007; Askari *et al.*, 2015).

A number of applied studies attempt to derive an Islamic human well-being model from the $maq\bar{a}sid$ al-Sharī ah tradition (Anto, 2011; Syed Ali and Hasan, 2014;

IES 28,2

Ahmed and Kasri, 2015; Ramli *et al.*, 2015; Amir-Ud-Din, 2014; Amin *et al.*, 2015). However, a problem with these applied studies is that the available data used to construct the well-being index does not adequately represent the theory. For example, Amir-Ud-Din utilises existing databases, such as the Pew Research Center's data to gauge religiosity. Yet, he acknowledges that the data available does not reflect the meaning of the preservation of religion in *maqāşid* theory. This raises concerns discussed by Abozaid and Dusuki (2007) and Setia (2015) about superficial understanding and improper application of *maqāşid* theory in Islamic economics and finance. In turn, it renders some of the "Islamic" *maqāşid* models (ibid). It is necessary, therefore to clarify how the *maqāşid* tradition can inform an Islamic well-being and moral economy approach.

Human wellbeing, morality and the economy

105

3. Well-being and moral frameworks

To clarify the Islamic perspective of well-being, it is first necessary to outline the main wellbeing frameworks in the literature on human well-being. Well-being theorists distinguish between objective list theories (OLTs) of well-being and utilitarian theories of well-being (Parfit, 1984; Brey, 2012; Fletcher, 2016). They are discussed in turn.

3.1 Objective list theory

OLTs of well-being hold that there are certain goods that are non-instrumentally good for people and contribute to their well-being, regardless of whether they desire them or not. Hence, they recognise objective conditions of people rather than subjective experience of pleasure or fulfilment of subjective desires (Brey, 2012). OLTs are usually pluralistic, involving a range of goods called "basic goods" which enable a person to satisfy their basic needs. A person's well-being depends possessing an adequate amount of goods on the list, such as knowledge, health, friendship and so on. It is up to the theorist to decide what goods are included in the list (Fletcher, 2016). While a "basic goods" approach is valuable-especially for poverty studies, arguably the perfectionist approach is more valuable for informing a holistic well-being approach as it seeks to include goods on the list that contribute to the perfection of human nature. According to Brey, "perfectionism constitutes the most influential explanatory OLT" (2012, p. 20). Whether it is based on secular or religious grounds, it holds that it is the human being's intrinsic nature and end-or *telos*-that defines what is good or bad for him. One of the most widely known perfectionist theories is Aristotle's theory of *eudaemonia* which holds that the happy life is a virtuous life attained through the perfection of our nature as rational and social animals (Brey, 2012). Other perfectionist theories of well-being include the Christian and Islamic approaches. Although utilitarianism is the dominant well-being theory underpinning mainstream economics, OLTs have been revived in recent years by neo-Aristotelian thinkers. OLTs are associated with teleological, deontological and virtue ethics moral frameworks [2].

3.2 The utilitarian well-being approach

In contract to OLTs, utilitarianism is informed by hedonistic and desire-fulfilment theories of well-being. Hedonism holds that "the only thing that is fundamentally intrinsically good for us is our pleasure; and the only thing that is fundamentally intrinsically bad for us is our own pain" (Heathwood, 2010 in Fletcher, 2016, p. 248). Although hedonism was less popular in philosophical circles in the pre-modern world, it became the dominant well-being philosophy in Europe through the thought of enlightenment scholars, such as Jeremy Bentham (d. 1832) and John Stuart Mill (d. 1873). In contrast with the pre-modern teleological understanding of happiness, according to Bentham, happiness is equivalent to pleasure ("the principle of

utility"). The goal of life rests in the maximisation of happiness, which is the only intrinsic good. Similarly, in his seminal text *Utilitarianism* (1836), Mill reduced morality to "the greatest happiness principle" as maximising pleasure and minimising pain. As Griffin notes, "Bentham and Mill used 'utility' both to explain action and to set a moral standard; they used its empirical role in arguing for its moral role" (Griffin, 1986, p. 12). Utilitarianism as a moral theory holds that morality only has instrumental value in so far as it contributes to utility. Furthermore, both Bentham and Mill were advocates of methodological individualism–a moral position widely held by scholars of the Enlightenment–whereby the general welfare was possible only if each individual was free to pursue happiness in his own way (Khan, 1994, p. 129). This moral theory has dominated economic theorising, although it has been criticised. According to Wight (2015): "By ignoring non-consequentionalist ethical frameworks and insisting that all actions reflect only utility based on preference satisfaction, economists construct an extremely limited way of assessing social achievement" (Wight, 2015, p. 116).

Hence, we find two highly influential and distinct well-being frameworks. While the modern economics discipline has adopted the utilitarian approach, arguably the dominant approach associated with pre-modern religious and philosophical traditions – including the Islamic tradition – is the OLT. The next section clarifies the Islamic well-being perspective with reference to philosophical studies of happiness ($sa'\bar{a}dah$), $maq\bar{a}sid$ al-Shar'iah and mediaeval treatises about economic ethics.

4. Human well-being from an Islamic perspective

4.1 The Islamic worldview

The Islamic perspective of well-being is informed by the Islamic worldview that is conveyed by the concept of $tawh\bar{t}d$ – Unity, or Oneness of God. As a worldview " $tawh\bar{t}d$ is a general view of reality, of truth, of the world, of space and time, of human history" (al-Faruqi, 1992, p. 10). It is a God-centric teleological worldview which holds that all things are created with a natural purpose and function by God-the only true Deity (*Ihah*) and Lord (*Rabb*) of creation. It implies unity and harmony of dimensions of life-the soul and the body, worship and work, the spiritual and the material, state and society, freedoms and responsibilities and therefore aligns with the human being's natural disposition (*fitrah*). According to Al-Rāghib al-Isfahāni (d. 1108 CE), the *tawhīdic* worldview is informed by three major principles known as the "purposes of creation" (maqāsid al-khalq): worship (ibādah), stewardship (khilāfah), and moral and material development (*umrān*) (al-Işfahā;ni, 1980, p. 31). These three concepts can be considered meta-ethics, or foundational axioms, that inform a Muslim's connection to God and inject life with meaning and purpose. While *ibadah*, includes ritual acts of worship, such as prayer and fasting, it can be understood as "a comprehensive term for all that God loves and that pleases Him of speech, inner and outer actions" (Ibn Taymiyyah, 1999, p. 29). It entails willing servitude to God alone out of love (Al-Qaradawi, 2006, p. 182). The innumerable textual references that emphasis the centrality of worship makes it beyond doubt that it is the raison d'être of man's existence and the ultimate test upon which his salvation lies (Al-Fasi, 2014, p. 14). Hence, *ibādah* is of central importance to the believer's life and their worldly and otherworldly well-being. The image of man as a humble servant (*'abd*) of God stands in stark contrast to the view of man as "homo dominus" who is the master of his destiny and free to exploit the world's resources as he wishes.

While worship of God can be considered as the ultimate purpose of human existence, its meaning can only be actualised by fulfilling the role of stewardship (*khilāfah*). The Qur'an states that God entrusted man as a steward (or custodian, or vicegerent) on earth to carry out His Will. Having accepted this trust man becomes personally responsible (*mukallaf*) and accountable for fulfilling his obligation (*takāf*) through knowledge (*ilm*), capability to act (*qudrah*) and free will (*ikhtiyār*) (Al-Attas, 2015, p. 6). Specifically, it entails upholding justice

106

IES

upon the earth (Q. 38:26). As all wealth belongs to God, the natural environment comes under man's custodianship (Q. 24:33). This negates the possibility that man can be faithful to God, while at the same time contributing to bloodshed, plunder and destruction of the earth's resources for the sake of his material gratification as is intrinsic to the neoliberal economic order (Nasr, 1997, p. 19). Hence, stewardship entails responsibility towards God and His Creation by maintaining justice.

The third higher objective–'umrān (also 'imārah al-'ardh, or simply 'imārah)–carries meanings to live, to build upon and beautify the earth. Umrān may be considered the metaethic governing economic activities related to earning and provisioning resources (kasb and infāq). Umrān contains a core moral component related to values, such as justice, peace and freedom, without which material development cannot materialise. The expansion of material goods in the absence of moral values would lead to the opposite of 'umrān, namely, corruption (fasād), destruction (tadmīr) and conflict (qitāl), as the Qur'ān details in numerous verses. Ibn Khaldūn used the term 'umrān to refer to various aspects of human settlement, including sciences, occupations and trades with positive moral connotations [3]. Hence, while 'umrān has been associated with contemporary concepts, such as human and material development, as well as civilisation-building, it has a core moral dimension and is rooted in the Islamic worldview (Malkawi, 2013, p. 127).

Hence, the *tawhīdic* worldview and the three higher purposes of creation can be considered the foundational axioms that guide individual and collective behaviour of Muslims to achieve holistic well-being.

4.2 Well-being and moral virtue

The exact meaning of well-being that economic activity seeks to realise can be understood with reference to classical Islamic philosophical insights of happiness (sa' $\bar{a}dah$) and the higher objectives of the Sharī'ah (maqāsid al-Sharī'ah). While Islamic economists commonly use the Qur'anic concept of "falah" which means "success", the concept of sa'ādah or happiness, is more commonly discussed in classical Islamic scholarship on inter-temporal well-being – especially within the Islamic ethics and $maq\bar{a}sid$ traditions. Muslim scholars, such as al-Fārābi (d. 950 A.D.), Ibn Miskawayh (d. 1030 A.D.) and al-Ghazali (d. 1111), wrote extensively on the concept of $sa^{c}\bar{a}dah$ by integrating Aristotelean and Platonic concepts of well-being with the Islamic worldview. For them, sa'ādah does not simply refer to subjective happiness but is a comprehensive concept that includes happiness, prosperity, success, perfection, blessedness and beatitude (Ansari, 1963, p. 319). It may therefore be equated with a good life (hayāt tayyiba), or holistic well-being. Al-Fārābi states, "happiness ($sa^{\dot{a}}dah$) is an intrinsic good [...] there is nothing beyond it that is greater than it that a human being can achieve" (Al-Fārābi, 2016, p. 61). They held that sa'ādah can be realised through attaining a range of necessary and sufficient goods for the completeness of life. Necessary goods include "goods of the body" and "external goods", such as health, fame, wealth, power and friendship (Ansari, 1963, p. 327). These goods must be accompanied by virtues, which refer to the disposition, or goods, of the soul from which beautiful actions $(af^{\bar{a}}\bar{a} | am\bar{n}a)$ proceed to realise sa' $\bar{a}dah$. According to Ansari: "Miskawayh fully endorses Aristotle's view that perfect $sa^{c}\bar{a}dah$ includes to a considerable extent, besides intellectual wisdom and moral excellence, soundness of health and senses, wealth, friends, good name and social success" (Ansari, 1963, p. 327). Hence, they followed a perfectionist objective list theory of well-being [4]. Furthermore, these scholars recognised that human beings cannot achieve $sa^{c}\overline{a}dah$ on an individual basis but must co-operate. Al-Fārābi highlights that both the words for assistance (*musā'adah*) and happiness $(sa'\bar{a}dah)$ share the same etymological root (s-a-d), showing the intimate connection between altruism and well-being. Miskawayh connects happiness to love,

Human wellbeing, morality and the economy

friendship and co-operation: "people must love each other, for each one finds his own perfection in someone else, and the latter's happiness is incomplete without the former" (Ibn Miskawayh, 2001, p. 14). Al-Fārābi and Miskawayh held that collective virtuous action is necessary to produce a "virtuous city".

These philosophical insights on $sa^{\dot{a}}dah$ emphasis that living virtuously is essential in order to live well. For further conceptual and methodological clarity, $sa^{\dot{a}}dah$ can be elaborated through $maq\bar{a}sid$ theory.

4.3 The higher objectives of the Shari'ah

Based on a holistic reading of the Sharī'ah, scholars such as al-Ghazāli and al-Shātibī, found that the Sharī'ah aims to preserve and promote five essential goods (*al-dharūrīyāt al-khams*)–Religion (*Dīn*), the Soul (*Nafs*), Intellect ('*Aql*), Progeny (*Nasl*) and Wealth (*Māl*). Al-Ghazāli states: "all that involves the protection of these five essentials (*usūl*) is an interest (*maşlahah*), and all that leads to their absence is a harm (*mafsadah*), while its prevention is an interest" (Al-Ghazali, 2012, p. 174). These goods are termed "essentials" because the absence of any one of them will lead to severe impairment of well-being, whether in this life or in the hereafter (Al-Raysūni, 2010). These five goods constitute general ('*āmm*) categories which contain innumerable instrumental "specific" (*khās*) goods, which in turn contain various "partial" (*juzi*) goods. Together they are "complete" as they capture the holistic nature of inter-temporal human well-being, namely, spiritual, physical and psychological, intellectual, social and material well-being, respectively.

Goods differ in their scope, function and the extent to which they contribute to well-being. Due to the relative scarcity of resources, the realisation of one good may limit one's ability to achieve the other. Hence, trade-offs must be made between certain goods. Therefore, al-Ghazāli and al-Shātibi elaborated upon a methodology of precedence based on a tripartite hierarchy of necessities ($dhar\bar{u}r\bar{n}at$), needs ($ha\bar{n}at$) and refinements ($tahs\bar{n}n\bar{a}t$). According to maqāsid theory, necessities refer to goods whose absence will cause overburdening hardship to life, if not its termination altogether (Al-Raysūni, 2010). Necessities are universal, irrespective of context as their absence will lead to excessive hardship for people, regardless of place and time. Needs include goods whose absence will cause difficulty and hardship to life, yet to a lesser degree as compared to the level of necessity. Needs are context specific, differing according to time and place. Refinements are those goods that enrich and add value to life. In opposition to these categories of goods are "bads" or "luxuries" that upset the natural balance in the human and natural world (al-mizan) and harm well-being. Hence, at the core of the Islamic understanding of well-being is the notion of balance between goods, their interconnectivity and levels of priority. This comes from the recognition that man has a dual nature-both physical and spiritual-that needs too be nourished without causing deficiency or excess in any of the core components.

From the aforementioned discussion, a conceptual model of well-being is presented that captures the holistic nature of human well-being through the five "essential" goods-religion, the self, the intellect, progeny and wealth, respectively–according to the three levels of priority, as illustrated in Figure 1. below. These goods capture the holistic nature of inter-temporal human well-being, namely, spiritual, physical and psychological, intellectual, familial and social, environmental and material respectively. They are basic, universal (i.e. they apply to all people), indispensable (ie, their loss causes serious harm), inter-dependent, and are final in the sense that each contains a range of instrumental goods. Through the methodology of prioritising goods according to necessities, needs and refinements, economic activity can promote the existence (wujūd) of these goods and prevent their loss ('adam) at different levels of priority. The next section details the various goods that contribute to realising the five essential goods.

108

IES



4.4 The five essential goods

4.4.1 Religion (Dīn). Religion has provided a core component of individual and collective human well-being for as long as man has existed. Religion broadly refers to belief in and worship of a supernatural controlling power and can be a particular system of faith or worship (Oxford, 2018). Both the inner dimensions ($b\bar{a}tin$) and outer dimensions ($th\bar{a}hir$) constitute religion $(d\bar{n})$. The inner dimensions relate to faith and spirituality that are contained in the metaphysical heart (*qalb*) and manifest in moral and ethical traits, such as truthfulness, patience, reliance, God-consciousness and so on. The outer dimensions relate to religious practice, such as rites of worship and performing good deeds. Hence, both the inner and outer dimensions need to be preserved and promoted to enable spiritual well-being to flourish. At the level of necessity comes "the five pillars of the religion" (arkān al-dīn), including faith (expressed in the testimony or *shahādah*), the daily prayers (*salāt*), fasting (sāwm), alms-giving (zakāt) and pilgrimage (hajj). They are named pillars because they are obligatory injunctions, without which the religion would dissipate. The testimony of faith is a formal statement based on sincere belief from the heart. Faith includes knowledge of God-His Names and Attributes, His Messengers, Revelation and faith in the "Unseen Realm" (al-gavb). Of all the Islamic rites, the most central are the five daily prayers (Nasr, 2004, p. 130). The prayers function to rejuvenate the soul through remembrance of God, protect from vice and provide solace from challenges of worldly life. Prayers performed in addition to the five daily prayers (i.e. those that are supererogatory and correspond to the legal category of "recommended" or *mandub*) can be considered as being within the category of needs or even refinements. Falling short of the level of necessary worship will lead to a deficiency in spiritual well-being, while going beyond the level of refinement may compromise other aspects of well-being. Fasting during Ramadan is an obligatory rite, during the holiest of Islamic months, for those who have the physical capacity to perform it. Keeping voluntary fasts in addition to the obligatory fasts can be considered as being from the needs and refinements. The third pillar-alms-giving $(zak\bar{a}t)$ -is prescribed upon those who possess more than a minimum amount of wealth $(nis\bar{a}b)$ as specified in the *figh* texts. There is also obligatory spending (*nafaqah*) for dependants, such as the obligation upon a married man to take care of the needs of his wife and children. Performing charitable acts beyond this amount can be considered within the category of need or refinement depending on the extent to which charity is given. Finally, Hajj is the fifth pillar of the religion which constitutes a necessity to be performed by the faithful at least once in a lifetime for those physically able and financial capable of doing so. Performing the Hajj more than once, or performing the Lesser Pilgrimage (*Umrah*) can be considered as falling within the category of needs or refinements. It may even become bad if it contributes to wastage and excess, such as by spending excessively on luxurious pilgrimage packages, or when there are more pressing needs to be met (Al-Qaradawi, 2007).

Achieving the range of goods that constitutes religion at the level of refinement produces the spiritual state of the "tranquil soul" that enjoys peace, contentment and love. In the modern world, irreligious ideologies, such as secularism, atheism and consumerism that are projected through global capitalism constitute a major threat to the perseverance and promotion of religion, to the detriment of inter-temporal well-being (al-Attas, 1978). For example, the philosophy of consumerism promoted by the modern market system, thrives upon exploiting feelings of scarcity and encouraging insatiability, which contradicts the wisdoms behind worship, such as fostering contentment and moderation in behaviour. In contrast to consumerism induced by desire-fulfilment, religion teaches believers to uphold justice ('adl) and to exercise benevolence (ihsān). As al-Ghazāli states: "God Most High has commanded us to observe justice (*adl*) and benevolence (*ihsān*) altogether. Justice is a means to salvation $(naj\bar{a}h)$ only, and it functions just as capital functions in commerce. Benevolence is a means to success (*fawz*) and to the attainment of felicity (*sa'ādah*), and it is comparable to profits in commerce" (Al-Ghazāli, 2015a, b, p. 85). Exercising benevolence in economic dealings, according to al-Dimashqi, requires self-sacrifice and altruism by favouring the other party, such as sacrificing some personal profit by weighing in favour of the buyer, reducing prices, gifting or other such benevolent acts (Al-Dimashqi, 2011, p. 215).

4.4.2 The self (Nafs). The second higher objective–*Nafs*–can be translated to mean "the Self". The term conveys both the spiritual, psychological and physical aspects of life. At the level of necessity, adequate food, shelter and clothing are basic needs to sustain the self. Physical health is a final good with intrinsic value which also has instrumental value in contributing to other aspects of well-being through various positive spillovers associated with good health. Universal access to basic healthcare is therefore a necessity. The right to life extends beyond access to basic goods to the right to security from harm. Beyond physical health, basic civic and political liberties enable people to enjoy freedom, dignity and equality. Also at the level of necessity, there are "bads" related to intolerant ideologies–whether secular or religious–causing discrimination and hatred, which may lead to persecution, violence and terrorism.

Given that human beings are social creatures whose well-being is contingent upon the well-being of others, co-operation and reciprocity that build social solidarity come at the levels of need and refinement. As al-Ghazāli and Ibn Khaldūn outline, co-operation is the basis of the division of labour and the creation of economic value. According to the latter: "through co-operation, the needs of a number of persons, many times greater than their own [number] can be satisfied" (Ibn Khaldūn, 1969, p. 271). Ibn Khaldūn recognised that the resulting efficiency gains will produce surplus over and above the necessities and needs of the local population, which can then be exported, and the surplus labour can engage in producing Refinements (ibid). The ethic of co-operation has been acknowledged by Aristotle, Aquinas, Smith and Polanyi. Furthermore, it aligns with the communitarian philosophy of Islam that is embodied in the concept of *Ummah* and recognised in jurisprudential reasoning that gives precedence of communal or public interest over individual interest (Setia, 2009) [5]. Medieval scholars recognised that personal ethics–or "management of the Self"–(*siyāsat al-nafs* or *husn al-tadbīr*) extends to management of the economy as "the art of household management" (*oikonomia*, or *tadbīr al-manzi*) and to politics as "the art of stewardship" (*tadbīr al-khalīfa*)

110

IES

(Essid, 1995, p. 11). Hence, ensuring well-being of the self entails concern for physical, psychological and spiritual well-being, by practicing ethical economic conduct towards one's belf and others, rather than self-interested behaviour.

4.4.3 Intellect ('Aql). From the Islamic perspective, the intellect ('aql) does not refer simply to the mind but includes the heart and the soul. In line with the *tawhīdic* worldview, all knowledge emanates from God (the All-Knowing, *al- 'Alīm*). Given the vital importance of knowledge for human well-being, seeking and conveying knowledge is regarded as an obligatory form of worship, that continues throughout one's life; by seeking knowledge in service to God, man is lead on the straight path towards God and ultimately gains His pleasure (al-Attas, 1978, p. 146). Medieval Muslim scholars recognised a hierarchy of knowledge and classified it according to two types. The first type of knowledge includes the essential religious knowledge that has traditionally been categorised into: creed ('*aqīdah*). jurisprudence (figh) and spiritual purification (tazkiyah). The second type of knowledge refers to "worldly knowledge" of the various experimental sciences ('ulūm) that is acquired through observation and empirical research. Basic primary educational provision of both forms of knowledge comes at the level of necessity as a universal right for all human beings and an individual obligation (*fardh* 'ayn). Beyond this, secondary and tertiary education can be considered at the level of necessity, need or refinement depending on the field of knowledge and the needs of the community; if there are not enough trained personnel in a particular field then the need becomes a necessity (as understood from the concept of communal obligation (*fardh kifāyah*)). Given the unity of knowledge, there is a need for a multi-disciplinary educational strategy to foster an integration of domains of knowledge to overcome the current dualism between "religious" and "secular" education. Education will be empowering if it fosters creativity, critical thinking, problem solving and decisionmaking skills. The promotion of cultural and artistic life comes at the levels of need and refinement.

Historically, endowments or pious foundations (waqf; pl. $awq\bar{a}f$) have played a central role in providing services to meet the needs of society, particularly society's intellectual advancement. The main institutions supported by the waqf system have included mosques and $z\bar{a}wiyas$, hospitals, schools, universities and libraries. Over the years, the waqf system grew to become the largest sector of the economy, mostly endowed by wealthy patrons, such as sultans, viziers, amirs, merchants and others of high social status (Abdel Mohsin *et al.*, 2016). Women of various socio-economic backgrounds, in particular, were known to be extremely generous in donating for endowments (ibid). This unique phenomenon of voluntary donations on such a large scale can only be fully understood with reference to the underlying Islamic worldview, moral philosophy and the inter-temporal understanding of well-being held by Muslims, which equates charitable donation to a profitable investment in material and spiritual terms. In contrast to privatisation and closure of the commons associated with the liberal market economy, the *waqf* system turns private wealth into sources of public benefit (Setia, 2011).

4.4.4 Progeny (Nasl). The protection and promotion of progeny is a fourth essential goal. Seeking to preserve and promote the well-being of one's progeny–or future generations–translates into a concern on behalf of individuals to ensure sustainability, such that this dimension can be understood as how well today's generation accounts for the well-being of future generations. Given that procreation is a human necessity and that marriage is considered from an Islamic perspective the only legitimate way of fulfilling it, marriage in turn becomes a general necessity. A sound marriage can produce a strong family as parents fulfil their responsibility towards God and towards each other as well as their children by establishing a peaceful home and giving them a good upbringing (Ibn Ashūr, 2006, p. 255). A good upbringing is likely to correspond with more dynamic and productive citizens when children become adults (Chapra, 2008a, b). Hence, according to Ibn Ashūr, "the consolidation

Human wellbeing, morality and the economy

and proper functioning of the family constitute the foundation of human civilisation and the integrating factor of society's order" (Ibn Ashūr, 2006, p. 241).

Major socio-economic and cultural changes brought about by modern industrial and postindustrial lifestyles and the expansion of the realm of the market have caused drastic sociological transformations that affect the family, such as declining prevalence of and delayed marriage, increasing prevalence of divorce and so on. It is incumbent that economic behaviour addresses such challenges facing the family and society to safeguard present and future generations.

4.4.5 Wealth (Māl). Wealth ($m\bar{a}l$) is the fifth essential good. Earning from permissible (halāl) sources through one's individual effort, in order to support one's self and one's family, is considered to be an individual obligation (fardh al-'ayn) for the able-bodied. If a person is unable to support his poor dependants, it is a collective obligation (*fardh al-kifayāh*) for members of a Muslim society to take care of the needs of the poor, disabled and other dependants, such as orphans and the elderly. Hence, regarding spending, there is first and foremost the obligatory tithe (zakāt) that is to be collected as either 2.5%, 5% or 10% of wealth and given to eight categories of poor mentioned in the Qur'an as "community property" ($m\bar{a}l$ al-muslimin). It ensures that wealth is circulated to meet necessities, such as daily consumption, shelter, medical treatment and savings for emergencies. Islamic inheritance laws also support family members through the distribution of the deceased's wealth. The absolute poverty line can be considered a benchmark of the subsistence level of income which constitutes the level of necessary. Once necessities are met, wealth may be spent for the sake of licit personal consumption or invested in profit and non-profit ventures in order to fulfil needs and attain refinements. It is a collective obligation to ensure that adequate employment opportunities exist to provide goods and services that meet society's needs. Legislation for maximum working hours, minimum pay and decent working conditions come at the level of necessity. At the level of need and refinement, work should allow every member of the society to perfect their God-given talents.

By re-embedding the economy into the Islamic worldview, moral and well-being philosophy, material well-being and spiritual well-being can be co-constitutive. Historically, according to Ashraf (1988), the market and the mosque were "inseparable twins" that have served as the primary arena for public life, especially extra-familial sociability (Ashraf, 1988, p. 539). In al-Ghazāli's words, the "market of this world" is intertwined with the "market of the hereafter". The guild system that dominated the urban medieval Islamic economy provides another example (Lapidus, 1988). Guilds worked in conjunction with the state to maintain market regulation and entry, enforce production codes and collect taxes. In addition to their economic and political function, guilds served important social and religious functions, such as sponsoring religious ceremonies, celebrations and collecting funds for charity (ibid; Kuran, 2000, p. 43). The master-apprentice relationship enabled specialist knowledge to be preserved and passed down through generations. They were connected to fraternity associations, known as *futuwwah*, as well as spiritual circles (tariqa). While in certain cases guilds were religiously and ethnically homogenous, according to Kuran (2000), inter-confessionalism was the norm, as guilds included Muslims, Christians and Jews, and various ethnic groups. The function of the guild in the pre-modern Islamic economy can be contrasted with the modern corporation that constitutes the driving force of the current global market economy. While the guild simultaneous served social, religious and market purposes, according to Hallaq: "the corporation is created by law for one purpose: to increase its wealth and to prioritise this purpose above all others, including social responsibility, which, when it exists at all, is placed in the service of generating even more profit" (Hallaq, 2014). Hence, it is essential for organisational structures and business models to ensure that pursuit of material well-being and spiritual well-being is co-constitutive and mutually reinforcing.

IES

28,2

Thus, the fulfilment of human well-being requires the balanced preservation and promotion of the five essential, interconnected and interdependent goods: religion, self, progeny and wealth. There would be a deficiency in well-being if some of these essential goods and their corollaries are acquired while other goods are absent. Furthermore, goods are prioritised according to three levels of priority–necessities, needs and refinements, thus showing that the perfection of the objective list aligns with achieving the level of refinements in all five essential goods. These goods are summarised in Table 1 below according to the most appropriate measurable components.

Human wellbeing, morality and the economy

113

5. Implications and steps ahead

A general criticism of Islamic economics is that it remains in the shadow of Western neoclassical economics (Sardar *et al.*, 2003). For example, according to Alatas: "Islamic economics is very much embedded in the tradition of British and American economics in terms of its near exclusive concern with technical factors such as growth, interest, tax, profits, and so on" (Alatas, 2006, p. 594). A key epistemological implication of this study is for Islamic economics to go beyond its disciplinary boundaries and connect to the rich Islamic ethical tradition, and to come into productive dialogue with other moral economy traditions. This can enable Islamic economics to become an "integrated field destined to become a pillar of the Muslim civilisation" (Sardar *et al.*, 2003, p. 43).

Another important implication is for the Islamic economy-including the Islamic banking and finance sector-to remain guided at all times by the goal of holistic human well-being, as underpinned by the Islamic worldview, moral philosophy, including principles, such as justice, benevolence, co-operation and concern for the poor. Despite impressive growth figures, a gap has emerged between aspirations and realities for which the sector has been criticised (Zaman and Asutay, 2009; Ahmed, 2011). Such problems facing the Islamic banking and finance industry can be traced back to a failure to set the conceptual foundations that underpin the industry (Asutay, in Cattelan, 2013). Hence, Islamic banks tend to replicate the conventional banking model of risk transfer – the most popular product offered by Islamic banks is the debt-based, mark-up contract (*murābahah*), while the equity-based, profit-andloss contracts (e.g. *mushārakah* and *mudhārabah*) are less common, even though they align more closely with the principle of co-operative risk sharing (Chapra, 2008a, b). Oftentimes, there is an emphasis on form rather than substance when products offered by Islamic banks are given "Shari'ah approval", without giving sufficient consideration to their purposes and implications-what El-Gamal (2006) calls "Sharī'ah arbitrage". This may also involve the use of "legal tricks" (*hīla*) to circumvent legal prohibitions, such as "sale and buy-back" (*bay*'-al-*(inah)* and "buying on credit and selling at spot value" (*tawarrug*) contracts (Abozaid and Dusuki, 2007, p. 147). This has led to the introduction of certain products onto the market that replicate the function of conventional products and provide credit for conspicuous consumption and morally questionable investments. In turn, the credibility of Islamic banks is being eroded amongst members of the public and academics.

Rather than attempting to replicate products offered by conventional financial institutions, Islamic banks should integrate their business model with the Islamic worldview and well-being philosophy. This will require education and training of practitioners so that employees can remain wholly committed to inclusive finance, with the highest ethical standards through a co-operative risk-sharing business model that targets necessities and needs, prior to refinements, with priority given to strategic sectors, small and medium-sized enterprises (SMEs), micro-businesses and financially excluded communities (Ahmed, 2011). Sharīʿah approval of business practices and products must combine a positive ethical screening criteria with the current exclusionary criteria (which focuses on issues such as absence of interest, speculation, illicit commodities and so on). Integrating technology,

IES 28.2		; ion;					poc	hon		ality,	and		try,	(pəni	
<u>114</u>	Bads	Irreligious ideologies religious discriminat					Hunger; unhealthy fo	Homelessnes; poor housing: poor sanitat	Disease, sickness, intoxication	War, conflict, crimin suicide	Political oppression a injustice	Fragmentation of knowledge	Entertainment indus celebrity culture	(contin	
	Refinements	Wisdom (<i>lukmah</i>), spiritual refinement (<i>tazkiyah</i>) and	Voluntary prayers with Voluntary prayers with reverence and humility	(<i>knushu</i>) Voluntary fasts; fasting of	Charitable institutions;	Eco-tourism and visits to reliations eites	Nutritious foods	Ascetic architecture	Advanced healthcare provision	Peace of mind	Fulfilling human potential of oneself and others	Tertiary education			
	Needs	General religious knowledge	Congregational prayer, funeral prayers, Eid	prayers Moderate consumption	Relieving financial	Voluntary pilgrimage	Provision to meet food	Needed physical infrastructure	Healthcare needs	Safe and secure neighbourhood	Communal rights	Secondary education			
	Necessities	Testimony of faith and basic religious knowledge	Five daily prayers and Friday prayer	Fasting Ramadan (once a	yeau) Zakāt (once a year)	Hajj (once in a lifetime)	Minimum calorie intake	Basic shelter	Basic healthcare provision	Right to life	Basic individual rights and freedoms	Primary education			
	Components	Belief	Prayers	Fasting	Charity	Pilgrimage	Food	Shelter	Health	Safety	Freedom Dignity Instice	Technical	Moral education		
		Five pillars of religion					Physical				"Abstract"	Mind	Heart		
I able 1. Summary table of the Islamic concept of human well-being	The five essentials	Religion					The self					Intellect			

such as blockchain, mobile banking and electronic payment systems, can enhance financial inclusion if used wisely. Hence, grounding the Islamic economy within the Islamic worldview and moral philosophy that is guided by the well-being model can allow it to fulfil its original purpose and regain credibility and provide genuine solutions to problems, such as persistent poverty, growing inequality and environmental degradation. Figure 2 summarises the key components of the Islamic economy.

Finally, this study highlights the need for collective efforts to support the development of a composite Islamic well-being index which accurately measures each dimension of well-being as accurately as possible. While previous attempts to develop $maq\bar{a}sid$ -based well-being indices are valuable and informative, the use of available data from a range of indices as proxies makes them unreliable measures as they do not reflect the concepts contained in the Islamic well-being perspective. These problems have been highlighted by the authors of these indices, such as Amir-Ud-Din (2014). Thus, a way forward can be for the Organisation of Islamic Co-operation (OIC)—as the largest Islamic multilateral organisation with a membership of 57 states—to support the development of an Islamic well-being index and to assist data collection efforts in Muslim communities. Such an index would be extremely useful for governments and policymakers to measure policy effects over time and for cross-country comparisons. Clearly, such an index would provide a more representative measure of well-being from an Islamic perspective compared to existing indices, such as the Human Development Index (HDI). A next step for further research is to collect data for each of these



Figure 2. A diagrammatic conceptualisation of the Islamic economy

116

IES

components by conducting surveys in order to construct a well-being model that is truly representative of the Islamic well-being philosophy as outlined.

6. Conclusion

This paper has argued that it is necessary to reassess the well-being philosophy underpinning economic thinking. An Islamic conceptual model of human well-being has been developed by integrating the *tawhīdic* worldview, the philosophical insights of sa' $\bar{a}dah$ with an objective list from the *maqāsid* tradition based on the five essential goods: religion $(D\bar{n})$, self (Nafs), intellect (Aql), progeny (Nasl) and wealth $(M\bar{a}l)$ that correspond to spiritual, physical and psychological, intellectual, familial and social, and material well-being, respectively. It has presented a methodology for prioritizing goods at three levels, according to human necessities, needs and refinements. While this well-being philosophy differs from the dominant utilitarian philosophy underpinning mainstream economics, it aligns with neo-Aristotelian and religious approaches based on a perfectionist objective list theory of well-being which consider living virtuously to be at the heart of living well. Hence, these approaches can come into productive dialogue to address common challenges posed by the global market economy and propose more ethical forms of market organisation and institutions, such as employee-owned companies and co-operatives. This dialogue can encourage the revival of the not-for-profit sector and foster critical introspection of the Islamic banking and finance industry. Finally, a collaborative effort is required to turn this model into an Islamic well-being index as a tool for policymakers and as a goal for national and regional co-operation, particularly between OIC member countries.

Notes

- Functionings relate to things a person may value being or doing while capabilities are the various sets of functionings that a person can achieve.
- 2. Deontology refers to "duty-", or "rule-" based ethics with an emphasis on duty and moral obligation to some set of rules. It may come from secular reason, such as Kantianism, or religious law, such as divine command theory. The latter is associated with religious traditions which see moral life in the light of divine commandments, whereby that which is ethically, or morally "good" is that which God commands, while that which is "wrong" or "bad" is something forbidden by God (Rachels and Rachels, 2003, p. 50). This suggests a position of ethical objectivism, whereby some moral principles have universal validity.
- 3. Al-Fārābi uses a derivative of the term '*umrān*, "*al-ma*'mūra" to refer to human settlement upon the earth (Al-Fārābi, 2016, p. 69).
- 4. The Islamic philosophy of *saʿādah* also bears resemblance to the Christian perspective of human well-being as outlined by two highly influential Christian theologians Augustine (d. 430 C.E.) and St. Thomas Aquinas (d. 1274 C.E.) in the concepts of *beautitudo* and *felicitas*. See: Lauinger in Fletcher (2016).
- 5. Ibn 'Ashūr (2006) differentiates between individual and societal interests, giving those interests that are concerned with the community priority over those that were concerned with individuals.

References

- Abdel Mohsin, M.I., Dafterdar, H., Cizakca, M., Alhabashi, S.O., Abdul Razak, S.H., Sadr, S.K., Anwar, T. and Obaidullah, M. (2016), "Financing the development of waqf properties: classical principles and innovative practises around the world", *Palgrave Studies in Islamic Banking, Finance, and Economics.*
- Abozaid, A. and Dusuki, A.W. (2007), "A critical appraisal on the challenges of realising Maqāşid al-Sharīʿah in Islamic banking and finance", *IIUM Journal of Economics and Management*, Vol. 15 No. 2.

Human wellbeing, morality and the economy

IES 28,2	Ahmad, K. (1980), "Economic development in Islamic framework", in Ahmad, K. (Ed.), Studies in Islamic Economics, Leicester: The Islamic Foundation and Jeddah: International Centre for Research in Islamic Economics, King Abdul Aziz University.							
	Ahmad, K. (1994), Islamic Approach to Development: Some Policy Implications, Institute of Policy Studies, Islamabad.							
110	Ahmed, H. (2011), "Maqāsid al-Sharī ah and Islamic financial products: a framework for assessment", ISRA International Journal of Islamic Finance, Vol. 3 No. 1.							
118	Ahmed, H. and Kasri, R. (2015), "Assessing socio-economic development based on Maqāsid Al- Sharī'ah principles: normative frameworks, methods and implementation in Indonesia", <i>Islamic Economic Studies</i> , Vol. 23 No. 1, pp. 73-100.							
	Al-Attas, S.M.N. (1978), <i>Islam and Secularism</i> , International Institute of Islamic Thought and Civilisation (ISTAC), Kuala Lumpur.							
	Al-Attas, S.M.N. (2015), "On justice and the nature of man: a commentary on Surah al-Nisa", <i>Surah Al-Mu'minum, IBFIM</i> , Vol. 58 No. 4, pp. 12-14, 23.							
	Al-Dimashqi, J. (2011), <i>The Indicator to the Virtues of Commerce</i> , Translated by Adi Setia, IBFIM, Kuala Lumpor.							
	Al-Fārābi, M. (2016), Ārā Ahl al-Madīna al-Fādhila wa Madhādātihā, Hindawi Foundation for Education and Culture, Windsor.							
	Al-Fārūqi, I.R. (1992), Al Tawhīd: Its Implications for Thought and Life, International Institute of Islamic Thought, Herndon, Virginia.							
	Al-Fāsī, 'A. (2014), Maqaşid al-Sharī'ah al-Islamiyyah wa Makarimaha, Dar al-Gharb al-Islāmī, Beirut.							
	Al-Ghazāli, A.H. (2012), Al-Mustasfā min 'Ilm al-Uṣūl, Muasasah al-Risalah, Beirut.							
	Al-Ghazāli, A.H. (2015a), The Alchemy of Happiness, Kimyā al-Sa'ādah.							
	Al-Ghazali, A.H. (2015b), <i>Essential Ihya Ulum al-Din</i> (translated by Karim, F.), Vol. 2, Islamic Book Trust, Selangor.							
	Al-Isfahāni, R. (1980), Al-Tharī'a Ila Makārim al-Shari'ah, Dār al-Sa'ādah.							
	Al-Qaradawi, Y. (2006), Al-Islam Hadhāra al-Ghadd, Maktaba Wahba, Cairo.							
	Al-Qaradawi, Y. (2007), Figh al-Awlawiyyat, Maktaba Wahba, Cairo.							
	Al-Raysuni, A. (2010), <i>Natharīyyah al-Maqāşid 'inda al-Imām al-Shātibi</i> , Dār al-Kalimah li al- Nashr wa Tawzī', Cairo.							
	Alatas, S.F. (2006), "Islamic and the science of economics", in <i>The Blackwell Companion to Contemporary Islamic Thought</i> , Blackwell Publishing.							
	Amin, R.M., Yusof, S.A., Haneef, M.A., Muhammad, M.O. and Oziev, G. (2015), "The Integrated Development Index (I-Dex): a new comprehensive approach to measuring human development", in El-Karanshawy, H.A., et al. (Eds), Islamic Economic: Theory, Policy and Social Justice. Doha, Bloomsbury Qatar Foundation, Qatar.							
	Amir-Ud-Din, R. (2014), "Maqāşid Al-Sharīʿah: are we measuring the immeasurable?", Islamic Economic Studies, Vol. 22 No. 2, pp. 1-32.							
	Ansari, M. (1963), "Miskawayh's conception of Saʿādah", <i>Islamic Studies</i> , Vol. 2 No. 3, pp. 317-335, (September 1963).							
	Anto, M.D. (2011), "Introducing an Islamic human development index (I-HDI) to measure development in OIC countries", <i>Islamic Economic Studies</i> , Vol. 19 No. 2, 2011.							
	Ashraf, A. (1988), "Bazaar-mosque alliance: the social basis of revolts and revolutions", <i>International Journal of Politics, Culture, and Society</i> , Vol. 1 No. 4.							
	Askari, H., Iqbal, Z. and Mirakhor, A. (2015), <i>Introduction to Islamic Economics: Theory and Application</i> , Singapore, Wiley.							

Asutay, M. (2007), "A political economy approach to Islamic economics: systematic understanding for	Human well-
Asutay, M. (2013), "Islamic moral economy as the foundation of Islamic finance", in Cattelan, V. (Ed.), <i>Islamic Finance in Europe: Towards a Plural Financial System</i> , Edward Elgar.	being, morality and the
Aydin, N. (2010), "Subjective well-being and sustainable consumption", International Journal of Environmental, Cultural, Economic and Social Sustainability, Vol. 6 No. 5.	economy
Aydin, N. (2013), "Redefining Islamic economics as a new economic paradigm", <i>Islamic Economic Studies</i> , Vol. 21 No. 1.	119
Baum, G. (1996), Karl Polanyi on Ethics and Economics, McGill-Queen's University Press, Montreal.	
Booth, W.J. (1994), "On the idea of the moral economy", American Political Science Review, Vol. 88 No. 3.	
Brey, P. (2012), "Well-being in philosophy, psychology and economics", in Brey, P., Briggle, A. and Spence, E. (Eds), <i>The Good Life in a Technological Age</i> , Routledge, pp. 15-34.	
Chapra, U. (2007), <i>Muslim Civilisation: The Causes of Decline and the Need for Reform</i> , The Islamic Foundation, Leicester.	
Chapra, U. (2008a), "Ethics and economics: an Islamic perspective", <i>Islamic Economic Studies</i> , Vol. 16 Nos 1 and 2, Aug. 2008 and Jan. 2009.	
Chapra, U. (2008b), "The Islamic vision of development in the light of Maqāsid al-Sharīʿah", The International Institute of Islamic Thought.	
El-Ashker, A. and Wilson, R. (2006), Islamic Economics: A Short History, Brill, Leiden, Boston.	
El-Gamal, M. (2006), Islamic Finance: Law, Economics and Practice, Cambridge University Press, Cambridge.	
Essid, M.Y. (1995), A Critique of the Origins of Islamic Economic Thought, E.J. Brill, Leiden, New York, London.	
Fletcher, G. (2016), The Routledge Handbook of Philosophy of Well-Being, Routledge Handbooks.	
Griffin, J. (1986), Well-Being: Its Meaning, Measurement and Moral Importance, Oxford	

Hallaq, W. (2014), *The Impossible State: Islam, Politics, and Modernity's Moral Predicament*, Columbia University Press, New York.

University Press.

- Heathwood, C. (2010), "Welfare", in Skorupski, J. (Ed.), Routledge Companion to Ethics, Routledge.
- Ibn Ashūr, M.A. (2006), "Ibn Ashur: treatise on maqāsid Al-Shari'ah", *The International Institute of Islamic Thought*.
- Ibn Khaldūn, A. (1969), *The Muqaddimah: An Introduction to History*, Translated by Rosenthal F., Princeton University Press.
- Ibn Miskawayh, A. (2001), *Tahthūb al-Akhlāq wa Tathūr al-Aʿarāq*, Maktaba al-Thaqafa al-Dīniya, Cairo.
- Ibn Taymiyah, A. (1999), *Ibn Taymiyyah's Essay on Servitude*, Al-Hidaayah Publishing and Distribution.
- Islahi, A.A. (2014), History of Islamic Economic Thought: Contributions of Muslim Scholars to Economic Thought and Analysis, Edward Elgar, Cheltenham, Northhampton, MA.
- Kahf, M. (2003), "Islamic economics: notes on definition and methodology", *Review of Islamic Economics* No. 13, pp. 23-47, 2003.
- Khan, M.A. (1994), An Introduction to Islamic Economics, International Institute of Islamic Thought, Islamabad.
- Kuran, T. (2000), "Islamic influences on the ottoman guilds", in Çiçek, K. (Ed.), The Great Ottoman-Turkish Civilization, Vol. 2.
- Lapidus, I.M. (1988), A History of Islamic Societies, Cambridge University Press, Cambridge.

IES 28 2	Malkawi, F.H. (2013), "Manthūma al-Qiyam al-Ulyā: al-Tawhīd al-Tazkiya, al-Umrān", <i>The International Institute of Islamic Thought</i> , Jordan.							
20,2	Mirakhor, A. and Askari, H. (2010), Islam and the Path to Human and Economic Development, Palgrave Macmillan, New York.							
	Naqvi, S.N.H. (1981), Ethics and Economics: An Islamic Synthesis, The Islamic Foundation.							
120	Nasr, S.H. (1997), Man and Nature: The Spiritual Crisis of Modern Man, ABC International Group, Chicago.							
	Nasr, S.H. (2004), The Heart of Islam: Enduring Values for Humanity, HarperOne, San Francisco.							
	Oxford Living Dictionaries (2018), "Well-being", available at: https://www.lexico.com/definition/well- being (accessed 21 September 2020).							
	Parfit, D. (1984), Reasons and Persons, Oxford University Press, Oxford.							
	Peil, J. and Van Staveren, I.V. (2009), <i>Handbook of Economics and Ethics</i> , Edward Elgar, Massachusetts.							
	Polanyi, K. (2001), The Great Transformation: The Political and Economic Origins of Our Time, Beacon Press, Boston.							
	Rachels, J. and Rachels, S. (2003), The Elements of Moral Philosophy, McGraw-Hill, New York.							
	Ramli, R., Ghafar Ismail, A. and Tasrif, M. (2015), <i>M-dex among the Islamic Countries</i> , Roundtable Policy Discussion on Maqasid Shariah, KUIS, 2015.							
	Sandel, M. (2012), What Money Can't Buy: The Moral Limits of Markets, Penguin.							
	Sardar, Z. (1985), Islamic Economics: From Partial to Axiomatic Approach in Islamic Futures: The Shape of Ideas to Come, Mansell, London.							
	Sardar, Z., Inayatullah, S. and Boxwell, G. (2003), Islam, Postmodernism and Other Futures: A Ziauddin Sardar Reader, Pluto Press.							
	Satz, D. (2010), Why Some Things Should Not Be for Sale: The Moral Limits of Markets, Oxford University Press.							
	Sen, A. (1987), On Ethics and Economics, Blackwell Publishing.							
	Setia, A. (2009), "The Islamic Gift economy: a brief conceptual outline", <i>Islamic Gift Economy and Selected Articles, and Waqf Institutions</i> , Friday Forum, Durban.							
	Setia, A. (2011), "Mu'āmalah and the revival of the Islamic gift economy: a brief conceptual outline and programmatic framework", <i>Islam and Science</i> , Vol. 9 (Summer 2011) No. 1.							
	Setia, A. (2015), "Freeing Maqāşid and Maşlaha from surreptitious utilitarianism", Paper presented at the International Conference on the Applications of Maqasid Al-Sharī'ah (Objectives of the Sharī'ah) in Governance and Public Policy, Organised by the International Institute for Advanced Islamic Studies (IAIS), Kuala Lumpur, 15–16 June 2015.							
	Syed Ali, S. and Hasan, H. (2014), <i>Towards a Maqasid al-Shariah Based Development Index</i> , Working Papers 1435-18, The Islamic Research and Teaching Institute (IRTI).							
	Wight, J.B. (2015), <i>Ethics in Economics: An Introduction to Moral Frameworks</i> , Stanford University Press.							
	Zaman, N. and Asutay, M. (2009), "Divergence between aspirations and realities of Islamic economics: a political economy approach to bridging the divide", <i>IIUM Journal of Economics and</i> <i>Management</i> , Vol. 17 No. 1, pp. 73-96.							
	Further reading							
	Ahmad, K. (2000), Islamic Approach to Development – Some Policy Implications, Institute of Policy Studies, Islamabad.							

Al-Basri, ʿA. (2012), <i>The Book of Insight into Commerce</i> , Translated by Adi Setia. IBFIM. Al-Buti, S. R. (2011), Min Sunan Allah fī ʿIbādihi, Dār al-Fikr.	Human well-
Al-Fārābi, M. (2012), <i>Tahsīl al-Saʿādah</i> , Maktaba al-ʿAsriyya, Beirut.	and the
Al-Fārābi, M. (1985), <i>al-Tanbīh ʿala Sabīl al-Saʿādah</i> , Dar al-Manāhil.	economy
Al-Lubudi, A. (2012), The Virtue of Working for a Living, the Legal Rules of Earning, the Ethics of Livelihood, Translated by Setia A and Lock N.M., IBFIM.	ceonomy
Al-Najjār, A.M. (2008), <i>Maqāsid al-Sharīʿah bi Abād Jadida</i> , Dar al-Gharb al-Islāmī.	121
Al-Shaybāni, M. (2001), The Book of Earning a Livelihood (Kitab al-Kasb), Translated by Adi Setia.	
Annas, J. (1987), "Epicurus on pleasure and happiness", University of Arkansas Press, <i>Philosophical Topics</i> , Vol. 15 No. 2, pp. 5-21, Ancient Greek Philosophy (FALL 1987).	
Aquinas (2014), <i>Summa Theologica</i> , Translated by Fathers of the English Dominican Province, Catholic Way Publishing, London.	
Arabi, S.H. (2016), "Well-being orthodox theories and Islamic views", International Journal of Social Economics, Vol. 43 No. 2, pp. 190-204.	
Aristotle (2014), <i>Nicomachean Ethics</i> , Translated with introduction and notes by Reeve, C.D.C, Hackett Publishing Company, Indianapolis.	
Asutay, M. (2011), "An introduction to Islamic moral economy (IME)", Presented at the Durham Islamic Finance Autumn School 2011, Durham Centre for Islamic Economics and Finance and ISAR-Istanbul Foundation for Research and Education, Istanbul Commerce University, Istanbul, 19–22 September 2011.	
Bakar, O. (2014), Islamic Civilisation and the Modern World: Thematic Essays, UBD Press, Darussalam.	
Black, R.A. (2006), "What did Adam Smith say about self-love?", <i>Journal of Markets and Morality</i> , Vol. 9 No. 9, Spring, pp. 7-34.	
Bowles, S. (2016), <i>The Moral Economy: Why Good Incentives are no Substitute for Good Citizens</i> , Yale University Press, London.	
Çizakça, M. (1998), "Awqaf in history and its implications for modern Islamic economies", Islamic Economic Studies, Vol. 6 No. 1, pp. 43-70.	
Cook, M.A. (2014), Studies in the Economic History of the Middle East: From the Rise of Islam to the Present Day, Oxford University Press, Oxford.	
Fakhry, M. (2004), A History of Islamic Philosophy, Columbia University Press, New York.	
Fine, B. (2013), Economics – Unfit for Purpose: The Director's Cut, SOAS Department of Economics Working Paper Series, No. 176, The School of Oriental and African Studies, London.	
Friedman, M. (1953), Essays in Positive Economics, University of Chicago Press, Chicago.	
Furqani, H. and Haneef, M.A. (2008), "Methodology of Islamic economics: typology of current practices, evaluation and the way forward", <i>Paper Presented at the 8th International Conference</i> on Islamic Economics and Finance, QFIS, Qatar Foundation.	
Gharipour, M. (2012), The Bazaar in the Islamic City, The American University in Cairo Press, Cairo.	
Götz, N. (2015), "Moral economy': its conceptual history and analytical prospects", <i>Journal of Global Ethics</i> , Vol. 11 No. 2, pp. 147-162.	
Haneef, M.A. and Furqani, H. (2011), "Methodology of Islamic economics: overview of present state and future direction", <i>International Journal of Economics, Management and Accounting</i> , The International Islamic University of Malaysia, Vol. 19 No. 1.	
Hodgson, G.M. (1992), "The reconstruction of economics: is there still a place for neoclassical theory?", <i>Journal of Economic Issues</i> , Vol. 26 No. 3, Sep., 1992.	
Ibn Abī al-Dunyā, A. (2016), The Restoration of Wealth (Islāh al-Māl), IBFIM, Kuala Lumpor.	
Inwood, B. and Woolf, R. (Eds), (2013), "Aristotle: Eudemian ethics", <i>Cambridge Texts in the History of Philosophy</i> , Cambridge University Press.	

Keen, S. (2011), Debunking Economics: The Name Emperor Dethroned, Zed Books, London.

- Kuran, T. (1995), "Islamic economics and the Islamic subeconomy", *The Journal of Economic Perspectives*, Vol. 9 No. 4, pp. 155-173, Fall 1995.
 - Macfie, A.L. (1959), "Adam Smith's moral sentiments as foundation for his wealth of Nations", Oxford Economic Papers, New Series, Vol. 11 No. 3, pp. 209-228, Oct., 1959.

Marshall, A. (1890), Principles of Economics, Macmillan and Co, London.

- Miskawayh, A. (2011), "Tahdhīb al-Akhlāq, Manshurat al-Jamal", available at: narjes-library.com.
 - Mitchell, T. (2005), "The work of economics: how a discipline makes its world", European Journal of Sociology, Vol. 46, pp. 297-320.

Mitchell, T. (2008), "Rethinking economy", Geoforum, Vol. 39, pp. 1116-1121.

- Moosa, E. (2004), "Muslim ethics?", in Schweiker, W. (Ed.), *The Blackwell Companion to Religious Ethics*, Blackwell Publishing.
- Naqvi, S.N.H. (2003), Perspectives on Morality and Human Well-being: A Contribution to Islamic Economics, The Islamic Foundation, Leicester.
- Nasr, S.H. (1993), The Need for a Sacred Science, SUNY Press.
- Nelson, J.A. (2012), "Poisoning the well, or how economic theory damages moral imagination", *The Oxford Handbook of Professional Economic Ethics*, Oxford University Press.
- Oslington, P. (2014), *The Oxford Handbook of Christianity and Economics*, Oxford University Press, Oxford.
- Pack, S.J. (2010), Aristotle, Adam Smith and Karl Marx: On Some Fundamental Issues in the 21st Century Political Economy, Edward Elgar, Cheltenham, Northhampton, MA.
- Polansky, R. (2014), *The Cambridge Companion to Aristotle's Nicomachean Ethics*, Cambridge University Press, Cambridge.
- Raworth, K. (2017), Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist, Oxford University Press, Oxford.
- Sandel, M.J. (2013), "The moral economy of speculation: gambling, finance, and the common good", *The Tanner Lectures on Human Values*, Delivered at the University of Utah, Feb 27th 2013.
- Sen, A.K. (1977), "Rational fools: a critique of behavioural foundations of economic theory", *Philosophy and Public Affairs*, Vol. 6 No. 4.
- Sen, A. (1999), Development as Freedom, Oxford University Press, Oxford.
- Setia, A. (2014), "Waqf and the civic economy", (Winter 2014), Islamic Sciences, Vol. 12 No. 2, The Centre for Islamic Studies. Originally published as "Waqf, Civil Society and Civil Economy" in AWQAF, Vol. 18 (2010), pp. 13-38.
- Skidelsky, R. and Skidelsky, E. (2012), *How Much Is Enough: The Love of Money and the Case for the Good Life*, Allen Lane.
- Smith, A. (2002), The Theory of Moral Sentiments. Cambridge Texts in the History of Philosophy, in Haakonssen, K. (Ed.), Cambridge University Press, Cambridge.
- Tawney, R.H. (1926), Religion and the Rise of Capitalism: A Historical Study, John Murray, London.
- Tripp, C. (2006), Islam and the Moral Economy, Cambridge University Press, Cambridge.
- Van Staveren, I. (2001), The Value of Economics: An Aristotelian Perspective, Routledge, London.
- Wight, J.B. (2009), "Sociability and the market", Forum for Social Economics, Vol. 38 No. 2, pp. 97-110.
- Wight, J.B. and Morton, J.S. (2007), *Teaching the Ethical Foundations of Economics*, National Council on Economic Education, New York.
- Zaman, A. (2009), "Islamic economics: a survey of the literature II", *Islamic Studies*, Vol. 49 No. 1, pp. 37-63, Spring 2010.

IES 28,2

Zaman, A. (2009), "Islamic economics: a survey of the literature I", *Islamic Studies*, Vol. 48 No. 4, Human wellbeing, morality and the Corresponding author economy Haithem Kader can be contacted at: haithem.kader@sant.ox.ac.uk

123

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm Or contact us for further details: permissions@emeraldinsight.com The current issue and full text archive of this journal is available on Emerald Insight at: https://www.emerald.com/insight/1319-1616.htm

IES 28,2

124

Received 6 July 2020 Revised 4 September 2020 Accepted 1 January 2021

Factors affecting Sharīʿah audit quality in Islamic banking institutions of Pakistan: a theoretical framework

Abdul Rashid

School of Economics, International Institute of Islamic Economics, Islamabad, Pakistan, and Muhammad Saarim Ghazi Sharīʿah Compliance Department, Emaan Islamic Banking (A Division of Silk Bank Ltd.), Islamabad, Pakistan

Abstract

Purpose – The objective of this study is to present a theoretical framework, which helps ascertain the meanings of the Sharī'ah audit quality and identify the factors that affect it.

Design/methodology/approach – The current literature of conventional and Islamic finance on audit quality is critically reviewed to propose the theoretical framework for the quality of Sharīʿah audit.

Findings – The paper suggests that for a better Sharīʿah compliance at Islamic banking institutions (IBIs), the role of audit practitioners is very much indispensable. The competency of the practitioner is one of the important factors that affect the quality of the Sharīʿah audit. Assessment and identification of Sharīʿah risk in different financial arrangements, contracts and transactions require a unique competency on the part of the auditor, that is, gripping Sharīʿah law besides traditional assurance skills and techniques.

Practical implications – The Sharīʿah compliance is one of the primary objectives of IBIs, which works at the conceptual level, product development and implementation level, various business models and governance level. Sharīʿah audit function, internal or external, is an important component of Sharīʿah governance framework and provides an independent assessment of IBIs' compliance with the Sharīʿah rules and principles and helps in managing the Sharīʿah non-compliance risk and ensuring sound internal Sharīʿah audit quality and determining the factors that are significant in affecting the Sharīʿah audit quality in the IBIs of Pakistan.

Keywords Sharīʿah audit quality, Islamic banking, Sharīʿah compliance, Sharīʿah governance, Sharīʿah risk Paper type Conceptual paper

1. Introduction

The robust and exponential growth of contemporary Islamic banking institutions (IBIs) has unlocked a new horizon of knowledge and skill set in the field of business and finance. The growth stimulated the research in various domains of Islamic finance which laid solid foundation in developing Sharīʿah, accounting, auditing, risk, governance, ethics and product development frameworks. Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and International Islamic Fiqh Academy, Jeddah, have put remarkable efforts to standardize or, at least, harmonize the Sharīʿah practices to facilitate national and



Islamic Economic Studies Vol. 28 No. 2, 2021 pp. 124-140 Emerald Publishing Limited e-ISSN: 2411-3395 p-ISSN: 1319-1616 DOI 10.1108/IES-07-2020-0025

JEL Classification — G3, M4. KAUJIE Classification — I72, I76

© Abdul Rashid and Muhammad Saarim Ghazi. Published in *Islamic Economic Studies*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/ licences/by/4.0/legalcode

international integration. Islamic Financial Services Board (IFSB) and local regulatory bodies like the State Bank of Pakistan (SBP) and the Bank Negara Malaysia (BNM) have introduced regulatory, governance and supervisory frameworks, pool and liquidity management guidelines, financial accounting and reporting mechanism, and tax regimes to ensure long-term sustainable growth through better control over the widespread operations of Islamic banking and financial institutions.

However, there are many areas in Islamic finance that are quite neglected by the researchers and require serious attention and efforts. Despite the enormous importance of understanding the quality of Sharī ah audit, its variables and its dimensions, the dilemma is lack of available empirical and theoretical literature on the topic. Understanding Sharī ah audit quality is important because it impacts the primary rationale behind the existence of contemporary IBIs, that is, their adherence with the Sharī ah rules and precepts enshrined in the Holy Qur'ān and the Sunnah. This adherence with the Sharī ah rules is termed as "Sharī ah Compliance" in Islamic banking industry.

The Muslim population at large patronizes their funds in Islamic banks since they believe that the financial transactions carried out in these institutions are Sharīʿah-compliant (Shome *et al.*, 2018). It is the fiduciary responsibility of those charged with the governance and management to ensure Sharīʿah compliance in the pool management, profit distribution, financings and other market-based operations (IFSB, 2009). Moreover, the long-term sustainable growth of these institutions also depends on the strong perception of being Islamic among the general public (Rosman *et al.*, 2017). Upside down, the instances of Sharīʿah non-compliance will certainly shake the commitment of the stakeholders toward Islamic banking, which may result in withdrawal of funds, loss of income and most importantly reputational loss and image erosion (Azrak *et al.*, 2016). Hence, Sharīʿah compliance is critical to IBIs and can only be ensured through a comprehensive and effective Sharīʿah governance framework (Muneeza and Hassan, 2014).

To this end, the central banks in various Islamic countries have issued guidelines, directives and Shaīīʿah governance frameworks for strict Shaīīʿah compliance in institutions over time (BNM, 2019; SBP, 2018; SBP, 2008). A comprehensive Shaīīʿah Governance Framework (the Framework) is issued by the SBP, for example, which has defined the roles and responsibilities of the board of directors, Shaīīʿah board, executive and senior management, Shaīīʿah compliance department, internal Shaīīʿah audit unit, product development and external auditors (the audit firms). According to the framework, the board of directors has the ultimate responsibility of ensuring the Shaīīʿah compliance in the institution, while the executive management on the other hand is responsible for the implementation of the framework in their respective domains. Further, the framework requires every institution to designate a minimum of three members of Shaīīʿah board in the institution to supervise and oversee all the Shaīīʿahrelated- matters. The provision of Shaīīʿah board is an additional layer in the governance structure of the IBIs (Hamdi and Zarai, 2014).

In order to ensure that all the organs of an Islamic bank observe the Sharī'ah compliance guidelines issued from time to time by the competent authorities in true letter and spirit, the framework has enforced four different kinds of assurance engagements on the institutions. These engagements include internal and external Sharī'ah audit, Sharī'ah compliance review and Sharī'ah compliance inspection by the regulator itself (SBP, 2018). The reports of all these engagements are then presented to Sharī'ah board for their information and review. The quality of these Sharī'ah engagements impacts the degree of Sharī'ah compliance in IBIs in many ways. For example, the Sharī'ah board determines corrective actions on the basis of these reports. The observations and unresolved issues identified by these engagements are presented by the Sharī'ah board to the board of directors in biannual briefing on the Sharī'ah compliance environment. Similarly, the Sharī'ah board forms opinion for the general public published in the annual accounts on the basis of these reports. Moreover, Resident Sharī'ah

Factors affecting Sharīʿah audit quality

Board Member (RSBM) periodic report, training need analysis on the Sharī'ah trainings and appraisal and bonuses of the bank staff all depend on the reports of these Sharī'ah engagements. Therefore, ensuring the Sharī'ah audit quality is important because it affects, directly or indirectly, the overall Sharī'ah compliance environment of the Islamic bank and subsequently the integrity of Islamic banking industry as a whole (Ghani *et al.*, 2019).

In spite of the testing for compliance with the Shari ah rules and precepts being carried out by four different segments, the reports of internal and external Shari ah audits are perceived to be more important due to various reasons. First, the scope of audit engagements is wider than that of review engagements (IAASB, 2016–17a, b, c). Second, the practitioners are more competent in detecting material misstatement, errors and fraud due to versatile experience and knowledge gained over time (Bonner, 1990; Frederick and Libby, 1986). Third, auditors are deemed to be independent (Jenkins and Stanley, 2019; Church et al., 2018). Fourth, they are professionally bound to comply with relevant auditing standards (including the Sharī'ah auditing standards in case of Islamic banking in many territories) and standards of quality control for audit firms (IAASB, 2016–17a, b, c), the code of ethics (IESBA, 2018) and the other regulatory requirements. The audit opinion formed by the auditors in their reports has formidable importance in the investment and other financial decisions of the intended users (EY, 2019; Holt and DeZoort, 2009). Therefore, auditors are responsible to exercise professional judgment and apply professional skepticism (KPMG, 2018) to reduce engagement risk and ensure that the quality of the engagement is not compromised at any cost.

It is clear from the above discussion that Sharīʿah audit quality impacts the very basic provision of the existence of the IBIs, that is, the Sharīʿah compliance. The aim of this study is twofold. First, it presents a theoretical framework for ascertaining the meanings of the Sharīʿah audit quality and the factors that affect the quality. Second, it briefly synthesizes the available literature on conventional audit quality and provides some insights for future research on the topic.

The paper is organized as follows. Section 1 presents the introduction. Section 2 deals with the literature review. Section 3 presents the theoretical framework. Section 4 is the conclusion.

2. Literature review

Sharīʿah audit has been discussed in the literature from various viewpoints; determining the achievement of the $Maq\bar{a}sid$ al-Sharīʿah through Sharīʿah auditing process (Rashid *et al.*, 2017), issues and challenges (Shahar *et al.*, 2018) and future Sharīʿah audit labor market (Shafii *et al.*, 2014). However, the literature on Sharīʿah audit quality is remote as we find only one study (Yazid and Suryanto, 2016) which covers very limited factors. On the other hand, enriched research literature is available on the conventional audit quality. Hence, we used this literature to draw the inferences and understand the conceptual underpinnings of the topic. The available literature on the audit quality can be classified into five subsections: the enigma of audit quality, stakeholders' perspectives for audit quality, frameworks on audit quality, measuring audit quality and factors that affect audit quality.

2.1 Enigma of audit quality

The review of literature on the audit quality shows that consensus upon the definition of audit quality is not yet agreed upon. Numerous efforts have been made in the last few decades to develop a consensus on how to define and measure audit quality. However, no consensus has been achieved yet (Knechel *et al.*, 2013; IOSCO, 2010). The enigma of audit quality leads to two primary issues: (1) the factors that affect audit quality cannot be ascertained clearly, and (2) audit quality cannot be reliably measured. The debate on the topic is still alive among the

126

IES

regulators, standard-setting bodies, auditors and others to reach at the generally acceptable view on it (IOSCO, 2010; FRC, 2006). For example, International Auditing and Assurance Standards Board states that "Audit Quality is a complex subject and there is no definition or analysis of it that has achieved universal recognition" (IAASB, 2014). Resultantly, the available definitions in the literature are not comprehensive enough to incorporate all the dimensions of the concept (Raak and Thürheimer, 2016).

2.2 Stakeholders' perspectives on audit quality

Reviewing the existing literature, we observed that various perspectives on the audit quality have developed and have been presented by the different stakeholders. The first one is the perspective of the general public or the users, who view audit quality from its end result because their investment and other business decisions are dependent on the audit opinion expressed by the auditors (Ianniello and Galloppo, 2015; Holt and DeZoort, 2009). Therefore, according to this view, the audit quality is achieved if material misstatement, if any, is detected and reported by the auditor (DeANGELO, 1981). The Australian Securities and Investments Commission (ASIC) also agrees with the view that the audit quality is achieved if the financial statements are no materially misstated (ASIC, 2017).

On the other hand, auditors think that audit is an organized task carried out thorough a systematic process. Thus, complying with the effective audit plan satisfactorily is enough for achieving audit quality (Christensen *et al.*, 2015). According to this perspective, if the auditor has complied with the audit plan, risk assessment procedures and audit methodology, the audit quality is achieved even if the material misstatement is not detected during the process. Auditors support their opinion on the fact that audit engagements provide the reasonable assurance on sufficient appropriate audit evidence (IAASB, 2014) rather than absolute assurance.

The third is the perspective of the audit firms. They think that the quality of audit is achieved if the audit work can be defended in court of law in the case of any litigation or claim of malpractice against it. The litigation is a signal of low audit quality (Franz *et al.*, 1998). Therefore, auditors perform more vigilantly in the case of high litigation risk (Sun and Liu, 2011) to avoid adverse outcomes (Peecher and Piercey, 2008).

Lastly, the regulator views high audit quality from its compliance with auditing standards, regulatory requirements and best practices (GAO, 2003). Thus, if the audit is done in strict compliance of auditing standards, regulatory requirements and best practices, it shall be considered high-quality audit. Any deviation from the standards and regulatory requirements shall be deemed as poor audit quality (Krishnan and Schauer, 2001).

2.3 Frameworks for audit quality

In order to overcome the challenge of defining audit quality, many individuals and professional bodies have developed and presented different frameworks as an alternative to gauge the overall audit quality. Financial Reporting Council (FRC) took the lead in this regard and issued a discussion paper "promoting audit quality" in year 2006. This effort kicked off the debate on the topic and various frameworks are structured. The FRC itself presented a framework in year 2008 with a title "*The Audit Quality Framework"* (*FRC, 2008*). Similarly, Australian Treasury published "Audit Quality: A Strategic Review" (Australian Treasury, 2010), International Auditing and Assurance Standard Board issued "*A Framework for Audit Quality: Key Elements that Create an Environment for Audit Quality*" (IAASB, 2016–17a, b, c) and some other individuals also presented frameworks on the audit quality (Francis, 2011; Knechel *et al.*, 2013; DeFond and Zhang, 2014). The frameworks generally categorized the factors affecting audit quality in inputs, process, output and context. Inputs are those attributes that belong to auditors such as experience, professional judgment and industry

Factors affecting Sharīʿah audit quality knowledge. Audit process includes audit planning, risk assessment, sampling, evaluation of audit evidence and so forth. Output means audit reports and information presented to the users. Lastly, context means the environment such as laws and regulations, audit fee, audit tenure and non-audit fee in which the audit is performed.

2.4 Measuring audit quality

The next dimension discussed in the literature is how to measure the audit quality. Many studies have tried to solve this challenge. However, no study provides conclusive answer to the issue (Ramamoorti, *et al.*, 2017; Raak and Thürheimer, 2016; Rajgopal *et al.*, 2020; Duff, 2009). The reason for this failure is obvious, that is, the lack of universally acceptable definition. Therefore, without a generally acceptable yardstick, gauging and measuring the accuracy and effectiveness of an audit is not possible.

2.5 Factors affecting audit quality

As we discussed earlier, determining audit quality is a multifaceted and complex challenge not only from theoretical but also from practical perspective. The professional bodies and individuals built up their frameworks by categorizing the attributes of audit quality in inputs, process, output and context. A rich literature on the factors is available that affect audit quality, either individually or collectively, directly or indirectly. Below, we discuss some of the major factors identified in the literature.

Various studies investigate the impact of industry-specific knowledge and experience of the auditor and found that they are positively related to the audit quality (Carcello *et al.*, 1992). One of the reasons is that auditors develop industry-specific skills due to repeating the same assignment (Bonner and Lewis, 1990; Frederick and Libby, 1986), which positively affects their performance (Beck and Wu, 2006). Moreover, this experience enhances their competency to detect internal control weaknesses (Rose-Green, Huang and Lee, 2011; Hammersley, 2006) and fraud and errors (Sarwokoa and Agoes, 2014). We can easily infer that the same is true for Sharīʿah auditors. Without understanding the dynamics of Sharīʿah non-compliance risk, a Sharīʿah controls at branches and operation units. However, scarcity of such Sharīʿah auditors and compliance review officers is one of the main challenges for the industry (Ali and Kasim, 2019).

Some studies investigated the effect of professional skepticism on the audit quality and documented that lack of professional skepticism leads to audit deficiencies (Favere-Marchesi and Emby, 2018), and audit failures (IFIAR, 2016). Therefore, there is a positive relationship between professional skepticism and the quality of audit (Chen *et al.*, 2009). Similarly, researchers found a positive relationship between auditor's professional judgment and audit quality. However, some studies suggest that the judgment is sometimes affected by many biases such as the recency effects (Asare, 1992), the framing effect or the framing bias (Emby and Finley, 1997) and the dilution effect (Hoffman and Patton, 1997). On the other hand, trait skepticism (Koch *et al.*, 2016) and experience (1993) both mitigate the auditor's judgment bias.

Auditor independence is one of the important factors that affect the quality of audit. Different studies accounted for various dimensions, which may affect the auditor independence such as client importance, auditor tenure, non-audit fee (Tepalagul and Lin, 2015), abnormal audit fees (Hribar *et al.*, 2014) and audit market concentration (Huang *et al.*, 2016). Both higher audit fee (Blay and Geiger, 2013) and lower audit fee relative to the normal fee (Ettredge *et al.*, 2014; Asthana and Boone, 2012) are perceived as threat to auditor independence, which may lead to poor audit quality. Similarly, it is generally perceived that non-audit fee also affects auditor independence (Kinney *et al.*, Auditor Independence, Non-Audit Services, and Restatements: Was the US Government Right?, 2002).

IES

Some studies investigated the factors that are related to the audit process such as risk assessment procedures (Zaiceanu *et al.*, 2015), analytical procedures (Glover *et al.*, 2015), audit sampling (Hoogduin *et al.*, 2015) and audit documentation (Payne and Ramsay, 2008). Many studies are carried out to check the relationship of various factors pertaining to an audit firm and audit quality. For example, the audit firm rotation improves audit quality (PCAOB, 2011) because auditors may develop personal ties with the customer, which may negatively affect the audit quality (Carey and Simnett, 2006). Similarly, fee premiums charged by Big N firms have a positive relationship with the audit quality (Carson *et al.*, 2012; Alzoubi, 2016; Rusmin, 2010).

The above discussion on the quality of audit reveals that the literature can be divided into five main areas. First is the enigma of audit quality, which suggests that the audit quality is multifaceted concept and there is no universally agreed definition of audit quality. The second area discusses the various perspectives developed in the absence of consensus on the definition of audit quality. In this regard, it was learned, so far, that there are four perspectives on the audit quality: the perspective linked with successfully detection of material misstatement (that may be termed as "the consequential perspective"), the perspective related to the process of audit (the procedural perspective), the perspectives related to successfully defending the audit work in court of law (the advocacy perspective) and the perspective related to complying with the regulation and best practices (the compliance perspective). Each of these perspectives provides a specific viewpoint regarding the audit quality, which it deemed fit. The third area of the literature on the audit quality is a framework for audit quality that is presented by various individuals and professional bodies to grip the dimensions of audit quality. The fourth area in the literature is the studies that propose different methodologies to measure audit quality and classify the factors affecting audit quality as inputs, process, output and context.

The detailed analysis of the literature shows that the concept of the Sharī'ah audit quality is almost untouched besides it enormous importance due to its effects on the provision of strict Sharī'ah compliance in the IBIs. Neither the definition nor the factors are defined for the Sharī'ah audit quality. This study therefore aims to provide a framework to ascertain the meanings of Sharī'ah audit quality and to identify the factors that affect the quality of Sharī'ah audit in the context of audit risk model.

3. Theoretical framework

The quality of Sharīʿah compliance carries peculiar importance in Islamic banking because the primary rationale behind the existence of Islamic financial institutions is their adherence with the Sharīʿah rules and precepts. The concept of Sharīʿah compliance works at various levels in IBIs. Some of the important areas are discussed and shown in Figure 1.

It is pertinent to note that the Sharī'ah compliance works at the conceptual level, product development and implementation level and governance level. The Sharī'ah audit is an important component of Sharī'ah governance framework and provides an independent assessment of IBIs' compliance with the Sharī'ah rules and principles. It helps in managing the Sharī'ah non-compliance risk and ensuring sound internal Sharī'ah control system. As the ears and eyes of the Sharī'ah boards, the quality of Sharī'ah audit also affects the quality of Sharī'ah boards decisions, which subsequently affects the overall Sharī'ah compliance environment of the institution. Therefore, due to the vital significance of Sharī'ah audit quality in ensuring a sustainable and sound Sharī'ah compliance mechanism in the institution, this paper provides a framework to ascertain the meanings of Sharī'ah audit quality in the IBIs of Pakistan at the second place.

Factors affecting Sharīʿah audit quality



levels

Source(s): Authors' construction

3.1 Ascertaining the meaning of Shari ah audit quality

The meaning of Sharī ah audit quality can be ascertained by developing an index of the four stakeholders' perspectives of audit quality discussed in the literature review. The descriptions of each of these perspectives are given in Table 1.

As we have already discussed, the consequential perspective is taken by the end users that the Sharī'ah audit quality is achieved when there is no material misstatement due to error and fraud. The end user wants to make decision on its basis; hence, from his perspective, audit quality is achieved in the absence of any material misstatement. The second perspective is generally taken by the auditors by which they think that if any audit is done according to firms' audit methodology, then the audit quality is achieved. The advocacy perspective generally taken by audit firms is that the quality of audit is achieved if we can advocate our work in court of law in the case of any litigation. The regulator generally holds the compliance perspective. This is because regulators are more concerned with the compliance of the best practices and professional standards.

Table 1.	The consequential perspective The procedural perspective The advocacy perspective The compliance perspective	The high Sharī'ah audit quality is achieved when the material misstatement, if any, is detected and reported by the Sharī'ah auditor The high Sharī'ah audit quality is achieved when all the audit tasks are carried out according to Sharī'ah audit plan and methodology The high Sharī'ah audit quality is achieved when the Sharī'ah audit work done during the Sharī'ah audit can be defended against any litigation or a claim of malpractice in court of law The high Sharī'ah audit quality is achieved when the Sharī'ah audit is conducted in line with strict compliance of the best-practices, regulatory requirements and				
determining Sharī ah	Source(s): Authors' constru	professional standards				
audit quality	Source(s): Authors' construction					

A survey questionnaire can be developed on the basis of the above perspectives and the opinion of the Sharī'ah board members, members of the audit committee, internal and external Sharī'ah auditors, Sharī'ah compliance, review and inspection officers, Sharī'ah coordinators and other relevant professionals. This may help in understanding the meanings of Sharī'ah audit quality.

The same approach is adopted by the International Auditing and Assurance Standards Board by conducting a survey to investigate the stakeholders' perspectives on the audit quality in nine countries whereby the opinion from board audit committee members, senior managers, public users and institutional investors wasre gathered. About 169 responses on perceptions of audit quality were collected, and results show the mixed opinion. The perspectives of the respondents on what constitutes audit quality largely varied (IAASB, 2014).

3.2 Determining the factors affecting Shari ah audit quality

As far as the factors affecting Sharīʿah audit are concerned, we have classified the factors on the basis of Audit Risk Model which has three components: (1) inherent risk, (2) control risk and (3) detection risk.

4. Inherent risk

Inherent risk is multifaceted in the case of Sharī'ah audit. The quality of subject matter, the education and experience of product manager, the size and age of the bank and so forth may affect Sharī'ah audit quality. However, all the risks classified in inherent risk are eventually reflected in the quality of the subject matter of the Sharī'ah audit. For the purpose of clarity, the subject matter of Sharī'ah audit means financial arrangements, contracts, transactions, policies and procedures, accounting and IT systems, transaction process flows and so forth (SBP, 2018). To comprehensively understand the concept, we can evaluate the quality of subject matter from the following dimensions:

4.1 Quality of subject matter with regard to structure of the products and services

With regard to the structure of the products and services, inherent risk may arise due to complex Sharīʿah structures where the rights and obligations of the parties are not properly defined, for example, inter-dependence of combined contracts; or products structured on the contracts that have narrow permissibility and can be used only in a dire need, for example, *bay' mu'ajjal* of *sukūk*; or even if the products are structured on strong theoretical and conceptual foundations but practical application may lead to Sharīʿah issues, for example, identifying actual proceeds in *istiṣnā'* transactions; or application of same financial structure in different industries, for example, *murābaḥah* in sugarcane has different risks as compared to cotton and cement.

4.2 Quality of subject matter with regard to structure of the institutions

At the institutional level, assessing inherent risk in newly established Islamic bank is difficult as compared to well-established Islamic bank where processes are well-documented and tested over time. Likewise, maintaining Sharīʿah audit quality is difficult in Islamic banking divisions of conventional banks as compared to full-fledged Islamic banks because of interconnection of various transactions, for example, accepting deposits on both counters. Similarly, assessing inherent risk is difficult in subsidiary of conventional bank as compared to full-fledged IBIs. Factors affecting Sharīʿah audit quality

4.3 Quality of subject matter with regard to nature of transactions

At the transactional level, maintaining Sharī'ah audit quality is difficult in transaction involving estimates/judgments or calculation, for example, treasury/pool management as compared to simple and routine transactions, for example, Murabaha and Istisn'a. Hence, inherent risk affects Sharī'ah audit quality in IBIs from various perspectives.

5. Internal Sharī ah control system

One of the important components of audit risk model is controlling for risk. To ensure strict Sharīʿah compliance environment in the bank, the management in coordination with Sharīʿah board and other organs of Sharīʿah governance framework is expected to design and establish adequate systems and controls in the form of Internal Sharīʿah Control System (ISCS). ISCS means the processes and procedures designed, implemented and maintained by those charged with governance, management and other personnel to provide reasonable assurance to the stakeholders regarding the achievement of an entity's Sharīʿah-related objectives. It is sometimes considered mis-selling Islamic financial products when appropriate internal controls to ensure Sharīʿah compliance are not in place (IMF, 2014). The ISCS provides assurance that operations are carried out in accordance with the Sharīʿah principles.

ISA-315 provides a detailed guidance to "the auditor to gain an understanding of numerous aspects of the entity and its environment in assessing risk of material misstatement" (IAASB, 2019). This understanding provides the auditor the opportunity to understand the business of the entity and related risks due to inadequate controls. On the basis of this understanding, auditors can determine appropriate audit strategies and substantive procedures.

The International Standards for the Professional Practice of Internal Auditing (IPPF) Glossary defines the control environment as "the attitude and actions of the board and management regarding the significance of control within the organization. The control environment provides discipline and structure for the achievement of the primary objectives of the system of internal control" (IIA, 2011). Similarly, the COSO published the Internal Control–Integrated Framework in 1992 and defined the control environment as "the control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Control environment factors include integrity, ethical values and competence of the entity's people; management's philosophy and operating style; the way management assigns authority and responsibility, and organizes and develops its people; and the attention and direction provided by the board of directors" (Crowe, 2019).

To comprehensively understand the controls perspective, we have presented the broad components of ISCS on the basis of globally accepted Internal Control Framework presented by COSO. The descriptions of the components of the ISCS are as follows.

5.1 Shari ah control environment

Sharīʿah control environment means the attitudes, awareness and actions created and maintained in the bank that provide basis for carrying out internal Sharīʿah control. The bank should demonstrate a culture of integrity, honesty and ethical behavior, commitment toward Sharīʿah compliance and zero tolerance on Sharīʿah non-compliance risk. The environment provides a foundation to other internal control components.

5.2 Sharīʿah risk assessment

Sharīʿah risk assessment means an effective and proactive mechanism for identification and appraisal of the significance of Sharīʿah compliance risks and actions required to address

132

IES

those risks. Sharīʿah compliance risk is defined as "the possibility that a financial service or product is not or will not be in compliance with established Sharīʿah principles and standards" (DeLorenzo, 2007). Hence, Sharīʿah compliance risks may hinder the achievement of a bank's Sharīʿah-related objectives. Therefore, IBIs need to have in place a comprehensive and dynamic Sharīʿah risk assessment process to identify and assess Sharīʿah compliance.

5.3 Shari ah control activities

It means those policies and procedures that help ensure that all the operations of the institution remain in line with Sharī'ah rules and principles are in place. It must be ensured that Sharī'ah controls are introduced for all levels of operations. For example, Sharī'ah controls that legitimate contracts are used in the product development process such as contracts combining and their combined outcome are Sharī'ah-compliant, prohibitions like *Ribā, Maisir* and *Gharar* are avoided and the transactions are executed as per the Sharī'ah approved process flows and so forth.

5.4 Information and communication

The fourth important component of ISCS is Information and Communication. Effective communication of relevant internal Sharīʿah controls and their objectives to concerned personnel lead to good ISCS and subsequently to better Sharīʿah compliance environment in the bank. Moreover, effective communication is the continuous process of sharing and obtaining information from the all the concerned for the achievement of the higher objectives of ISCS.

5.5 Shari ah monitoring activities

Last but not the least, the Sharīʿah Monitoring Activities of the Sharīʿah controls in the IBI is another important factor. Ongoing monitoring, periodic inspections of the effectiveness of Sharīʿah controls through internal Sharīʿah review and internal Sharīʿah audit lead to an effective and efficient ISCS which, in turn, ensures Sharīʿah compliance in IBIs. Moreover, the part of it is the timely communication of internal Sharīʿah control deficiencies to every concerned for taking corrective actions.

From the above ISCS structure, control risk in an Islamic bank can be identified in a timely manner so that the material misstatement can be prevented or detected and corrected on a timely basis by the Islamic bank's internal controls system. The outcome of this control system may also result in sensitization of board of directors and executive management with Sharī'ah compliance risk, development of well-defined management oversight, structures and reporting lines, along-with appropriate authorities and responsibilities of the segments, departments and individuals. Moreover, internal Sharī'ah controls embedded in policies, products and procedures will definitely result in the stringent Sharī'ah compliance environment in the institution.

6. Detection risk

The third component in the audit risk model is detection risk. This is also a multifaceted concept. Inability to detect material misstatement may relate to auditor, audit firm and assurance engagement. The factors that impact the audit quality related to auditor, audit firm and audit engagement are discussed In the following subsections.

6.1 Factors pertaining to auditor

Factors pertaining to the auditor are the education, experience, professional skepticism and ability to interpret the audit results. From the perspective of Sharīʿah audit quality,

Factors affecting Sharīʿah audit quality

the education and experience of Sharī'ah auditor mean both type of education and experience, that is, Islamic banking and auditing.

The competency of the auditor is one of the important factors that affect the quality of the Sharīʿah audit. Assessment and identification of Sharīʿah risk in different financial arrangements, contracts and transactions required a unique combination of competencies, that is, gripping Sharī ah law besides traditional assurance skills and techniques (Ali *et al.*, 2020). Hence, without core education and proper training in Islamic banking and auditing, as well as the deep understanding of the features, risks, practical limitations and implications of Islamic financial products, the Sharīʿah auditors cannot comprehend the Sharīʿah non-compliance risk: a multifaceted phenomenon. For example, the understanding that where the transaction is valid $(sal\bar{u}h)$, when any mistake nullifies the very requisite of a contract, when the transaction is irreconcilable $(b\bar{a}til)$, when it is voidable/irregular (Fasid) and how can it be corrected and when it is merely disliked (makrooh) needs adequate knowledge and skill set on the part of Sharī ah auditor. Similarly, the financial arrangements and contracts in different Islamic banks for the same product differ. For example, some Islamic banks are offering vehicle financing on the basis of shirkat al milk-cum- $ij\bar{a}rah$, some banks are offering on the basis of *ijārah* and still other banks are offering on diminishing mushārakah. Understanding the underlying contracts of the transaction and Sharī'ah implications at every step of these transactions needs a complete and deep understanding of Sharī'ah law.

Therefore, any incompetency in understanding the inherent risk or control risk at the planning stage will lead to designing weak analytical procedures. Similarly, any inability to detect any material misstatement will expose to higher engagement risk which, in turn, shall affect the quality of the Sharīʿah audit engagements.

The factors related to audit firms are audit fee, reputation of the audit firm, audit firm tenure and the size of the firm. All the factors included in this list are the most relevant and much debated factors in the audit quality literature. Lastly, the factors that are incidental to audit engagement are sufficient sample size, risk assessment procedures, appropriate audit procedures, audit evidence and review process, complying with the necessary statutory and regulatory requirements and industry-wide best practices.

On the basis of the above discussion on defining Sharīʿah audit quality in the light of consequential perspective, procedural perspective, advocacy perspective and compliance perspective, and on the factors affecting Sharīʿah audit quality in the light of audit risk model, on the factors classified as inherent risk, control risk and detention risk, in this paper, a theoretical model is developed and presented in Figure 2.

7. Conclusion and future research

Besides the overwhelming importance of the quality of the Sharīʿah audit in ensuring the strict Sharīʿah compliance environment in IBIs, researchers have neglected this research area. The literature is silent on what is the Sharīʿah audit quality. What are the factors that affect the quality of Sharīʿah audit? And how we can reliably measure it? Hence, there is a dire need to discuss the variables, dimensions and impact of Sharīʿah audit quality to better understand the concept and to provide a concrete foundation for effective and efficient decision-making regarding internal Sharīʿah control system in the IBIs.

This paper is an effort to initiate the debate on the topic of Sharī'ah audit quality by providing a framework. The framework comprehensively identified the areas which may affect Sharī'ah audit quality ranging from the factors related to subject matter of Sharī'ah audit, internal Sharī'ah controls, auditors, audit firm and audit engagement. Each variable presented in the framework may be explored from various dimensions by drawing inferences from the tremendous amount of research literature available on the conventional audit

134

IES



quality. Some of the research topics may include the following: How do the training, promotions, incentives and religious teachings impact the decisions and Sharī'ah audit opinions of Sharī'ah auditors? What are the factors that enhance the professional skepticism and judgment of the Sharī'ah auditors in IBIs? How does the technical expertise in Sharī'ah audit and professional skepticism interact? What are appropriate benchmarks for evaluating the quality of Sharī'ah audit output? Does the second partner review of the Sharī'ah audit engagement enhance Sharī'ah audit quality? How can the Sharī'ah audit reports be expanded? Do the AAOIFI Sharī'ah auditing standards result in overstandardization of Sharī'ah audit and review process? Does the external Sharī'ah audit scope defined by the State Bank of Pakistan appropriate and sufficient? How well the existing Sharī'ah audit proxies can predict the Sharī'ah audit quality?

References

- Ali, N.A.M. and Kasim, N. (2019), "Talent management for Shariah auditors: case study evidence from the practitioners", *International Journal of Financial Research*, Vol. 10 No. 3, pp. 252-266.
- Ali, N.A.M., Shafii, Z. and Shahimi, S. (2020), "Competency model for Shari'ah auditors in Islamic banks", *Journal of Islamic Accounting and Business Research*, Vol. 11 No. 2, pp. 377-399.
- Alzoubi, E.S.S. (2016), "Audit quality and earnings management: evidence from Jordan", Journal of Applied Accounting Research, Vol. 17 No. 2, pp. 170-189.
- Asare, S.K. (1992), "The auditor's going-concern decision: interaction of task variables and the sequential processing of evidence", *The Accounting Review*, Vol. 67 No. 2, pp. 379-393.
- ASIC (2017), Improving and Maintaining Audit Quality, Australian Securities and Investments Commision, Brisbane.
- Asthana, S.C. and Boone, J.P. (2012), "Abnormal audit fee and audit quality", *Auditing: A Journal of Practice and Theory*, Vol. 31 No. 3, pp. 1-22.
- Australian Treasury (2010), Audit Quality in Australia A Strategic Review, Australian Treasury, Parkes.
- Azrak, T., Saiti, B. and Engku Ali, E.R.A. (2016), "An analysis of reputational risks in Islamic banks in Malaysia with a proposed conceptual framework", *Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilization* Issue Special Issue, pp. 331-360.
- Beck, P.J. and Wu, M.G.H. (2006), "Learning by doing and audit quality", *Contemporary Accounting Research*, Vol. 23 No. 1, pp. 1-30.
- Blay, A.D. and Geiger, M.A. (2013), "Auditor fees and auditor independence: evidence from going concern reporting decisions", *Contemporary Accounting Research*, Vol. 30 No. 2, pp. 579-606.
- BNM (2019), Shariah Governance, Bank Negara Malaysia, Central Bank of Malaysia, Kuala Lumpur.
- Bonner, S.E. (1990), "Experience effects in auditing: the role of task-specific knowledge", *The Accounting Review*, Vol. 65 No. 1, pp. 72-92.
- Bonner, S.E. and Lewis, B.L. (1990), "Determinants of auditor expertise", *Journal of Accounting Research*, Vol. 28, pp. 1-20.
- Carcello, J.V., Hermanson, R.H. and McGrath, N.T. (1992), "Audit quality attributes: the perceptions of audit partners, preparers, and financial statement users", *Auditing: A Journal of Practice and Theory*, Vol. 11 No. 1, pp. 1-15.
- Carey, P. and Simnett, R. (2006), "Audit partner tenure and audit quality", *The Accounting Review*, Vol. 81 No. 3, pp. 653-676.
- Carson, E., Simnett, R., Soo, B.S. and Wright, A.M. (2012), "Changes in audit market competition and the Big N premium", Auditing: A Journal of Practice and Theory, Vol. 31 No. 3, pp. 47-73.

136

IES

28.2
Chen,	Q., Kelly,	K. a	and	Salterio,	S.E.	(2009),	Do	Audit	Action	s Consiste	ent with Inc	reased Audi	tor
	Scepticism	Det	ter	Potential	Ma	nageme	nt i	Malfeas	ance?,	Carleton	University,	University	of
	Waterloo,	and	Que	en's Univ	versit	ty, Sask	ato	on.					

- Christensen, B.E., Elder, R.J. and Glover, S.M. (2015), "Behind the Numbers: insights into large audit firm sampling policies", Accounting Horizons, Vol. 29 No. 1, pp. 61-81.
- Church, B.K., Jenkins, J.G. and Stanley, J.D. (2018), "Auditor independence in the USA: Cornerstone of the profession or Thorn in our Side?", Accounting Horizons, Vol. 32 No. 3, pp. 145-168.
- Crowe (2019), COSO Internal Control Integrated Framework: An Implementation Guide for the Healthcare Provider Industry, COSO, Crowe and CommonSpirit Health, Durham.
- DeAngelo, L.E. (1981), "Auditor size and audit quality", *Journal of Accounting and Economics*, Vol. 3 No. 3, pp. 183-199.
- DeFond, M. and Zhang, J. (2014), "A review of archival auditing research", Journal of Accounting and Economics, Vol. 58 No. 2, pp. 275-326.
- DeLorenzo, Y.T. (2007), "Shari'ah compliance risk", Chicago Journal of International Law, Vol. 7 No. 2.
- Duff, A. (2009), "Measuring audit quality in an era of change: an empirical investigation of UK audit market stakeholders in 2002 and 2005", *Managerial Auditing Journal*, Vol. 24 No. 5, pp. 400-422.
- Emby, C. and Finley, D. (1997), "Debiasing framing effects in auditors' internal control judgments and testing decisions", *Contemporary Accounting Research*, Vol. 14 No. 2, pp. 55-75.
- Ettredge, M., Fuerherm, E.E. and Li, C. (2014), "Fee pressure and audit quality", Accounting, Organizations and Society, Vol. 39, pp. 247-263.
- EY (2019), How a Quality Audit Enhances Trust: Global Audit Quality Report 2019, EY Global, London.
- Favere-Marchesi, M. and Emby, C. (2018), "The alumni effect and professional skepticism: an experimental investigation", Accounting Horizons, Vol. 32 No. 1, pp. 53-63.
- Francis, J.R. (2011), "A framework for understanding and researching audit quality", *Auditing:* A Journal of Practice and Theory, Vol. 30 No. 2, pp. 125-152.
- Franz, D.R., Crawford, D. and Johnson, E.N. (1998), "The impact of litigation against an audit firm on the market value of nonlitigating clients", *Journal of Accounting, Auditing and Finance*, Vol. 13 No. 2, pp. 117-134.
- FRC (2006), "Promoting audit quality discussion paper", available at: http://www.frc.org.uk/Our-Work/Publications/FRC-Board/Discussion-Paper-Promoting-Audit-Quality.aspx.
- FRC (2008), "The audit quality framework", available at: https://www.frc.org.uk/consultation-list/2008/ the-audit-quality-framework.
- Frederick, D.M. and Libby, R. (1986), "Expertise and auditors' judgments of conjunctive events", *Journal of Accounting Research*, Vol. 24 No. 2, pp. 270-290.
- GAO (2003), Mandated Study on Consolidation and Competition GAO Report 03-864, Government Accountability Office, Washington DC.
- Ghani, N.L.A., Ariffin, N.M. and Abdul Rahman, A.R. (2019), "The measurement of effective internal Sharī'Ah audit function in islamic financial institutions", *International Journal of Economics, Management and Accounting*, Vol. 27 No. 1, pp. 141-165.
- Glover, S.M., Prawitt, D.F. and Drake, M.S. (2015), "Between a rock and a hard place: a path forward for using substantive analytical procedures in auditing large P&L accounts: commentary and analysis", *Auditing: A Journal of Practice and Theory*, Vol. 34 No. 3, pp. 161-179.
- Hamdi, F.M. and Zarai, M.A. (2014), "Corporate governance practices and earnings management in islamic banking institutions", *Research Journal of Finance and Accounting*, Vol. 5 No. 9, pp. 81-96.
- Hammersley, J.S. (2006), "Pattern identification and industry-specialist auditors", The Accounting Review, Vol. 81 No. 2, pp. 309-336.

Factors affecting Sharīʿah audit quality

IES 28.2	Hoffman, V.B. and Patton, J.M. (1997), "Accountability, the dilution effect, and conservatism in auditors' fraud judgments", <i>Journal of Accounting Research</i> , Vol. 35 No. 2, pp. 227-237.
20,2	Holt, T.P. and DeZoort, T. (2009), "The effects of internal audit report disclosure on investor confidence and investment decisions", <i>International Journal of Auditing</i> , Vol. 13 No. 1, pp. 61-77.
138	Hoogduin, L.A., Hall, T.W., Tsay, J.J. and Jo, B. (2015), "Does systematic selection lead to unreliable risk assessments in monetary-unit sampling applications?", <i>Auditing: A Journal of Practice and</i> <i>Theory</i> , Vol. 34 No. 4, pp. 85-107.
	Hribar, P., Kravet, T. and Wilson, R. (2014), "A new measure of accounting quality", <i>Review of Accounting Studies</i> , Vol. 19 No. 1, pp. 506-538.
	Huang, TC., Chang, H. and Chiou, JR. (2016), "Audit market concentration, audit fees, and audit quality: evidence from China", <i>Auditing: A Journal of Practice and Theory</i> , Vol. 35 No. 2, pp. 121-145.
	IAASB (2014), A Frameowrk of Audit Quality: Key Elements that Create an Environment for Audit Quality, International Auditing and Assurance Standards Board, New York, NY.
	IAASB (2016–17a), A Frameowrk of Audit Quality: Key Elements that Create an Environment for Audit Quality, International Auditing and Assurance Standards Board, New York, NY.
	IAASB (2016–17b), Handbook of International Quality Contro, Auditing, Review, Other Assurance and Related Services Pronouncements, International Auditing and Assurance Standards Board, New York.
	IAASB (2016–17c), International Standard on Assurance Engagements (ISAE) 3000, International Auditing and Assurance Board, New York.
	IAASB (2019), Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and its Environment, International Auditing and Assurance Standards Board, New York, NY.
	Ianniello, G. and Galloppo, G. (2015), "Stock market reaction to auditor opinions – Italian evidence", Managerial Auditing Journal, Vol. 30 Nos 6/7, pp. 610-632.
	IESBA (2018), International Code of Ethics, The International Ethics Standards Board for Accountants, New York.
	IFIAR (2016), 2015 Inspection Findings Survey, The International Forum of Independent Audit Regulators, Paris.
	IFSB (2009), Guiding Principles on Sharī'ah Governance Systems for Institutions Offering Islamic Financial Services, Islamic Finance Services Board, Kuala Lumpur.
	IIA (2011), Auditing the Control Environment, Insitute of Internal Auditors, Lake Mary, Florida, FL.
	IMF (2014), "Islamic banking regulation and supervision: survey results and challenges", IMF Working Paper, Washington, DC, pp. 1-41.
	IOSCO (2010) Transparency of Firms that Audit Public Companies - Consultation Report International

- Organisation of Securities Commission, Madrid. Jenkins, J.G. and Stanley, J.D. (2019), "A current evaluation of independence as a foundational element
- of the auditing profession in the United States", Current Issues in Auditing, Vol. 13 No. 1, pp. 17-27. Kinney, W.R., Palmrose, Z. and Scholz, S. (2002), "Auditor independence, non-audit services, and
- restatements: was the USA Government right?", Journal of Accounting Research, Vol. 42 No. 3, pp. 561-588.
- Knechel, W.R., Krishnan, G.V., Pevzner, M., Shefchik, L.B. and Velury, U.K. (2013), "Audit quality: insights from the academic literature", Auditing: A Journal of Practice and Theory, Vol. 32 No. 1, pp. 385-421.
- Koch, C., Köhler, A. and Yankova, K. (2016), "Professional skepticism and auditor judgment: does trait skepticism mitigate the recency bias?", available at SSRN: 2880653.

KPMG (2018), Audit Quality and Transparency Report, KPMG.

- Krishnan, J. and Schauer, P.C. (2001), "Differences in quality among audit firms", Journal of Accountancy, Vol. 192 No. 1, p. 85.
- Muneeza, A. and Hassan, R. (2014), "Shari'ah corporate governance: the need for a special governance code", Corporate Governance: The International Journal of Business in Society, Vol. 14 No. 1, pp. 120-129.
- Payne, E.A. and Ramsay, R.J. (2008), "Audit documentation methods: a path model of cognitive processing, memory, and performance", *Auditing: A Journal of Practice and Theory*, Vol. 27 No. 1, pp. 151-168.

PCAOB (2011), Issuance of a Concept Release on Auditor Independence and Audit Firm Rotation.

- Peecher, M.E. and Piercey, M.D. (2008), "Judging audit quality in light of adverse outcomes: evidence of outcome bias and reverse outcome bias", *Contemporary Accounting Research*, Vol. 25 No. 1, pp. 243-274.
- Raak, J.V. and Thürheimer, U. (2016), "Opportunities to improve the measurement of audit quality: a call for collaboration between the profession and academics", *Maandblad voor Accountancy en Bedrijfseconomie*, Vol. 90 No. 9, pp. 352-358.
- Rajgopal, S., Srinivasan, S. and Zheng, X. (2020), "Measuring audit quality", Columbia Business School Research Paper, *Review of Accounting Studies*, Forthcoming.
- Rashid, A.A.A., Abdul Hamid, M., Sidek, A.S.M. and Ali, I.M. (2017), "Shari'ah auditing: a review of Shari'ah audit practices in islamic financial institution (IFIs)", 4th International Conference on Governance and Accountability, pp. 231-235.
- Rose-Green, E., Huang, H. and Lee, C. (2011), "The association between auditor industry specialization and firms' disclosure of internal control weaknesses", *International Journal of Auditing*, Vol. 15 No. 2, pp. 204-216.
- Rosman, R., Azmi, A.C. and Amin, S.N. (2017), "Disclosure of Shari'ah non-compliance income by islamic banks in Malaysia and Bahrain", *International Journal of Business and Society*, Vol. 18 No. 1, pp. 45-58.
- Rusmin, R. (2010), "Auditor quality and earnings management: Singaporean evidence", Managerial Auditing Journal, Vol. 25 No. 7, pp. 618-638.
- Sarwokoa, I. and Agoes, S. (2014), An Empirical Analysis of Auditor's Industry Specialization, Auditor's Independence and Audit Procedures on Audit Quality: Evidence from Indonesia, Kuala Lumpur, pp. 271-281.
- SBP (2008), Instructions and Guidelines for Shariah Compliance in Islamic Banking Institutions, State Bank of Pakistan, Karachi.
- SBP (2018), Shari'ah Governance Framework for Islamic Banking Institutions (IBIs), State Bank of Pakistan, Karachi.
- Shahar, W.S.S.W., Wan Hassin, W.S. and Mohama, U.M.S. (2018), "Shariah audit for islamic financial institutions (IFI's): issues and challenges", *Reports on Economics and Finance*, Vol. 4, pp. 151-158.
- Shafii, Z., Mohd Ali, N.A. and Kasim, N. (2014), "Shariah audit in Islamic banks: an insight to the future Shariah auditor labour market in Malaysia", *Proceedia - Social and Behavioral Sciences*, Vol. 145, pp. 158-172.
- Shome, A., Jabeen, F. and Rajaguru, R. (2018), "What drives consumer choice of Islamic banking services in the United Arab Emirates?", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 11 No. 1, pp. 79-95.
- Sun, J. and Liu, G. (2011), "Client-specific litigation risk and audit quality differentiation", Managerial Auditing Journal, Vol. 26 No. 4, pp. 300-316.
- Tepalagul, N. and Lin, L. (2015), "Auditor independence and audit quality: a literature review", *Journal of Accounting, Auditing and Finance*, Vol. 30 No. 1, pp. 101-121.

Factors affecting Sharīʿah audit quality

	Zaiceanu, A.M., Hlaciuc, E. and Lucan, A.N.C. (2015), "Methods for risk identification and assessment in financial", <i>Procedia Economics and Finance</i> , Vol. 32, pp. 595-602.
28,2	islamic audit: a study for the Jakarta islamic index", <i>International Journal in Economics and Business Administration</i> , Vol. 4 No. 1, pp. 20-38. Zaiceanu, A.M., Hlaciuc, E. and Lucan, A.N.C. (2015), "Methods for risk identification and assessment

- Ali, N.A.M., Mohamed, Z.M., Shahimi, S. and Shafii, Z. (2016), "Knowledge for Shari'ah auditors' competency in Islamic financial institutions", *International Journal of Trade, Economics and Finance*, Vol. 7 No. 4, pp. 113-120.
- Kennedy, J. (1993), "Debiasing audit judgment with accountability: a framework and experimental results", *Journal of Accounting Research*, Vol. 31 No. 2, pp. 231-245.

Corresponding author

Abdul Rashid can be contacted at: Abdulrashid@iiu.edu.pk

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm Or contact us for further details: permissions@emeraldinsight.com The current issue and full text archive of this journal is available on Emerald Insight at: https://www.emerald.com/insight/1319-1616.htm

Does leverage level matter for return anomaly during rights issue announcements? The case of Islamic countries

Murat Isiker and Oktay Tas

Faculty of Management, Istanbul Technical University, Istanbul, Turkey

Abstract

Purpose – This paper aims to measure investors' perception of the rights issue announcement of publicly listed companies in five stock markets of Islamic countries. Then, these firms are grouped according to their debt level to examine whether abnormal returns are different from those that are highly leveraged. Moreover, Sharī'ah compatibility of firms is checked to understand if return anomaly shows different behaviour around rights issue announcement days.

Design/methodology/approach – The analysis period includes the years 2010–2019, which includes 362 rights issue announcements. The event study methodology is applied to measure the level of impact that is triggered by the rights issue announcements. Hereafter, one-way ANOVA test is performed to identify whether there exists a difference among the sample groups according to their debt level.

Findings – Findings suggest that rights issue announcements cause –3.90% fall in share prices on average for the whole sample. However, negative abnormal return is found significant only in Egypt and Turkey. Individual regression analysis results suggest that an increase in debt level worsens the return anomaly only in Egypt. This refers that the rights issue announcement is perceived as less favourable for highly leveraged companies compared to others in this country. Finally, Sharī'ah-compliant companies show better performance compared to non-compliant counterparts around the event dates.

Originality/value – This paper is novel in evaluating market reaction during rights issue announcements in multiple Islamic countries. Also, to the best of the authors' knowledge, this study is the first attempt to compare return behaviour of Sharī'ah-compliant and non-compliant firms around the rights issue announcements.

Keywords Rights issue, Return anomaly, Announcement effect, Sharī'ah compliance, Leverage level,

Event study methodology

Paper type Research paper

1. Introduction and literature review

The rights issue is a method of raising capital for companies by addressing their existing shareholders. Investors, who do not want to face dilution, must participate in the offering and inject new capital on a rate that is announced by the company board. On the other hand, those who reject to participate in this offering may sell their pre-emptive rights on the market, which will result in a decrease in their existing ownership proportion. Perception of investors to the rights issue news differs according to companies' profile. If investors believe that the company will use the new capital for profitability or long-term growth concerns, then they may react positively to the announcement. However, if they evaluate this news as a bad signal, which means that the company is not performing well operationally or financially, then the reaction can be negative.

© Murat Isiker and Oktay Tas. Published in *Islamic Economic Studies*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence.

Anyone may reproduce, distribute, translate and create derivative works of this article (for both

commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

JEL Classification — G4, G14, G15, G32. KAUJIE Classification — I72, I76

This paper is based on the PhD thesis of Murat Isiker.



Islamic Economic Studies Vol. 28 No. 2, 2021 pp. 141-155 Emerald Publishing Limited e-ISSN: 2411-3395 p-ISSN: 1319-1616 DOI 10.1108/IES-07-2020-0023

Does leverage level matter?

141

Received 4 July 2020 Revised 10 December 2020

Accepted 23 December 2020

The rights issue is not popular in developed markets as it is in emerging ones. Tan et al. (2002) claim that the rights issue does not attract companies in countries where developed bond markets and tax advantages of issuing bonds exist. Despite non-popularity in developed markets, a group of studies aims to understand market reaction around the rights issue announcements. Common findings of the US-based studies report negative market reaction occurring after the rights issue announcements (Hansen, 1988; Eckbo and Masulis, 1992: Heron and Lie, 2004). Apart from studies in the USA. Slovin *et al.* (2000) report -3.09% cumulative average abnormal return (CAAR) for (-1, 0) event window (specific period of time to measure event's impact) in the UK; Kabir and Roosenboom (2003) indicate -2.79% CAAR for (0, 1) in the Netherlands; Adaoglu (2006) finds -7.06% fall in share prices on average in Turkey for (0, 5); Balachandran et al. (2012) show -1.99% CAAR for (-1, 1) in Australia; and Kim and Song (2020) report -10.5% CAAR for (0, 5) in South Korea. Holderness and Pontiff (2016) suggest that one reason behind negative reaction is the lack of enthusiasm to participate in the offerings. For example, the average participation rate by investors in rights issues is 64% in the USA. On the other hand, a positive excess return is reported in Japan by Kang and Stulz (1996), which is around 2.20% for (-1, 1) event window; in Greece by Tsangarakis (1996), which is about 3.90% for (-1, 0); in Singapore by Tan *et al.* (2002), which is approximately 2% within 3-day event window; and in Kuwait by Alhashel and Alojayan (2015), which is around %5 for (-2, 2). Ariff et al. (2007) assert that rights issue announcements can be perceived as favourable if the appetite for high growth exists in a country. Also, Mateus *et al.* (2017) suggest that if there are firm-specific future growth opportunities, a positive market reaction is obtained.

Leverage level of companies that apply rights issues is affected in two ways. One is a direct effect, since the debt-to-equity ratio becomes lesser as a result of raised capital. The second reason is that the company may prefer to decrease the debt level by paying the loans back to the creditors. For example, Kim *et al.* (2019) suggest that one-third of raised capital after rights issuance is used in debt restructuring in South Korea. Thus, we aim to analyze whether the market reaction is affected according to different debt levels. Lee *et al.* (2014) show that abnormal returns for non-financial firms are higher for highly leveraged companies. Sartika *et al.* (2016) claim that in Indonesia, the debt level has a positive association with abnormal returns. Authors conclude that highly leveraged companies, which announce rights issues, provide favourable signals for future growth. However, Tan *et al.* (2002) and Alhashel and Alojayan (2015) assert that change in debt level does not affect the market reaction in Singapore and Kuwait. Iqbal (2008) reports that market reaction to the rights issues is more negative for those firms that announce to use the new capital for the debt reduction purpose rather than new investment projects.

Leverage level is also crucial in Sharī'ah-compliant investment. Financial screening limits the Sharī'ah-compliant companies to have no more than one-third of a debt level over their total assets or market capitalization. (Some institutions such as Meezan Islamic Fund in Pakistan and Participation Index in Turkey apply different benchmark levels for this criterion.) Since Sharī'ah-compliant companies are assumed to be less-leveraged than non-compliant peers, they are expected to be more resistant against market downturns (Bhatt and Sultan, 2012; Saiti *et al.*, 2014; Farooq and AbdelBari, 2015; Ismail, 2015; Ashraf *et al.*, 2017). Since the majority of the studies in the literature suggest that rights issue announcements result in a fall on average in share prices, it is worth to analyze and compare the return performance of the Sharī'ah-compliant and non-compliant and non-compliant financial instruments is documented in many studies (Al-Khazali *et al.*, 2014; Jawadi *et al.*, 2014; Tas *et al.*, 2016; Rejeb and Arfaoui, 2019). However, this paper aims to concentrate more on the return anomaly that is triggered by a specific corporate event and how this anomaly occurs for compliant and non-compliant firms in the sample countries.

142

IES

28,2

This paper is novel in evaluating market reaction during rights issue announcements in multiple Islamic countries. Also, to the best of our knowledge, this study is the first attempt to compare return behaviour of Shari ah-compliant and non-compliant firms around the rights issue announcement days. The rest of the paper is organized as follows. The next section describes the data and research design, the third section evaluates the paper's findings and the last section is reserved for the conclusion.

2. Data and methodology

Rights issue announcement data were extracted from Thomson Reuters Eikon database for the countries of Egypt, Malaysia, Pakistan, Saudi Arabia and Turkey. Since the concern of the paper is dealing with the impact of rights issue announcements in Islamic countries, data for other countries such as Bahrain, Indonesia, Kuwait, Morocco, Oman, Qatar and UAE are also checked. Due to an insufficient number of announcements or missing price data for stocks, these countries are excluded from the analysis. Table 1 shows the number of announcements for each year and each country with their corresponding indices.

Daily price data are used in the analysis to find abnormal returns. Also, the ratio of totaldebt-to-total-assets, which is used by Lee et al. (2014), is preferred to measure the debt level of the companies. Data for both variables are extracted by using the Datastream database.

To measure abnormal return after the rights issue announcement, event study methodology is performed for each country, and then for the pooled sample. There are certain steps to perform this technique. These are described and defined as follows:

2.1 Definition of the event

First of all, the event must be identified. In this study, the rights issue announcement is stated as the event. Also, the announcement day is set as t = 0.

2.2 Estimation period

As a second step, the estimation period and estimation windows must be determined. To find the expected return of a security, estimation period is set as a specific period before the event. Since daily expected return calculation is considered for this study, the estimation period will be 240 days, which is approximately the number of trading days in a year, which is suggested

Countries	Egypt	Malaysia	Pakistan	Saudi Arabia	Turkey	
codes (RICs) Index series name	.EGX100 EGX 100 index	.KLFT100 FTSE Bursa 100 index	.KSE KSE 100 index	.TASI TADAWUL FF index	.XUTUM BIST all shares index	
2019	4	0	3	10	25	
2018	8	2	3	7	28	
2017	7	7	8	4	16	
2016	4	2	2	4	8	
2015	8	5	6	4	7	
2014	7	7	5	10	12	
2013	8	8	4	4	9	
2012	0	3	1	3	16	
2011	5	7	6	2	18	Table 1
2010	7	2	5	5	26	Number of rights josue
Total	58	43	43	53	165	announcement for each
Source(s): Thomson	Reuters Eikon;	author's calculation	n			country

Does leverage level matter?

IES
28,2by Armitage (1995). Thus, the estimation window is determined as (-250, -11). On the other
hand, event windows are the number of days that the impact is averaged and cumulated to
understand the anomaly that is caused by the event. In this study, we use six different event
windows. Kothari and Warner (2007) assert that expanding event windows may cause to lose
the ability to detect the true effect of the event. Thus, short event windows are preferred in
this study. To see the entire effect of the announcement, two different event windows, (-10,
10) and (-5, 5), are used. For the pure announcement effect, five and ten days after the event-
day periods are assigned (i.e. (0, 5) and (0, 10)). Lastly, to check whether there is an insider
trading activity, (-10, -1) and (-5, -1) windows are preferred.

2.3 Expected return calculation

To find the impact of the defined event, we need to calculate the abnormal (actual) return, which is simply the difference between expected and realized returns of a security. Constant mean return (CMR) model is used to find expected returns. In this model, the expected return of a security is calculated by aggregating returns that are realized within the estimation period and divided by 240 days. In other words, the expected return is the average of returns of the trading days approximately one year prior to the event.

Thus, μ_i is the average return of security *i* during the estimation period, where $R_{i,t}$ is the realized return of security *i* at time *t*, and $\varepsilon_{i,t}$ represents the deviation from the average in the event date for security *i*. CMR can be formulated as follows:

$$R_{i,t} = \mu_i + \varepsilon_{i,t} \tag{1}$$

When we subtract the actual with the expected return for security *i*, we obtain the abnormal return for a specified event window. Thus, we can rewrite the equation as follows:

$$\varepsilon_{i,t} = R_{i,t} - \mu_i \tag{2}$$

2.4 Statistical tests

Abnormal returns need to be tested statistically to understand whether they are significantly different from zero or not. CAAR is hypothesized as follows:

$$H_0: \operatorname{CAAR}_{(t_x, t_y)} = 0, H_1: \operatorname{CAAR}_{(t_x, t_y)} \neq 0,$$

where (t_x, t_y) is the related event window in the analysis. Also, CAAR is formulated in equation (3) and (4) as follows:

$$CAR_{i,(t_x,t_y)} = \sum_{t_x}^{t_y} AR_{i,t}$$
(3)

AR_{*i*,*t*} is the abnormal return of each security on a single day within the event window, and CAR_{*i*, (t_x,t_y)} is the aggregation of abnormal returns.

$$\operatorname{CAAR}_{(t_x, t_y)} = \frac{1}{N} \sum_{i=1}^{N} \operatorname{CAR}_{i, (t_x, t_y)}$$
(4)

Cross-sectional *t*-test and generalized sign test that is formulated in Cowan (1992) are used to test the null hypothesis that is stated above. We prefer to use both methods to obtain more profound results.

Moreover, one-way ANOVA is performed to investigate whether abnormal returns differ according to different debt-level groups. Debt levels are grouped into four by using quartile ranges. Table 2 shows debt-level groups according to the variable of total-debt-to-total assets Does leverage (TDTAs) ratio, Group 1 represents companies with low leverage level, while Group 4 consists of highly leveraged companies.

Thus, one-way ANOVA test is hypothesized as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

H_1 : At least one group is different than others

Apart from one-way ANOVA, we use the ordinary least square (OLS) method to see the explanatory power of debt level on abnormal returns for each country.

Hence, equation (5) shows the simple regression model as follows:

$$CAR_{i,(t_r,t_v)} = \beta_{0,i} + \beta_1 TDTA_i + \varepsilon_i$$
(5)

Finally, t-test for two independent samples is applied to find whether there exists a difference in abnormal return means for Sharī ah-compliant and non-compliant groups. We expect to obtain better performance from Sharī ah-compliant companies since rights issue announcements cause a fall in share prices in general, as documented in most of the papers in the literature. Thus, our hypothesis for this part is that CAR (cumulative abnormal returns) for Sharīʿah-compliant firms is not different from non-compliant firms. Sharīʿahcompliant firm lists are available for all countries except Egypt. Due to data unavailability, Egypt is not included for this part of the analysis. Sharī ah-compliant list of the Shariah Advisory Council of Securities Commission Malaysia is used for Malaysian companies. For Pakistani firms, the list of Al Meezan Investment Group is taken into consideration. Screening of three institutions, which are named as Al Rajhi Capital, Alinma Investment and Albilad Capital, is used for Saudi Arabian firms. A company is excluded from the sample of Sharī'ahcompliant group if one of these three institutions does not confirm the compatibility of this company. Finally, for the Turkish case, two available sources announce Sharī'ah-compliant companies' list every quarter. These are BMD Securities and Ziraat Participation Index. If a company is mentioned on the Sharī'ah-compliant by both sources, then it is included in the sample. In total, a group of 98 Sharī ah-compliant and 207 non-compliant companies are included in the sample groups.

3. Empirical findings

3.1 Event study results for return anomaly

Rights issue announcements that occurred during the period 2010-2019 in five Islamic countries are analyzed under the event study methodology. First, abnormal returns for the pooled sample are calculated, and then the country-specific analysis is conducted. Table 3 shows the test results for CAAR under six different event windows. Findings suggest that significant return anomaly is detected for the pooled sample when the event window covers before and after announcement periods. Findings of this paper are in line with existing literature (Hansen, 1988; Eckbo and Masulis, 1992; Kabir and Roosenboom, 2003; Heron and Lie, 2004; Balachandran et al., 2012). Negative return anomaly seems concentrated more on

Debt level groups	Obs.	Mean	Std. dev.	Min	Max	
Group 1 Group 2	70 71	5.803 23.134	4.082 5.249	0.04 13.28	13.07 30.77	Table 2. Debt-level quartiles according to the total-
Group 3 Group 4	69 70	37.932 63.449	4.464 18.767	31 47.23	47.07 151.79	debt-to-total- assets ratio

145

level matter?

1ES 28,2		Event windows	(-10, 10)	(-10, -1)	(0, 10)	(-5, 5)	(-5, -1)	(0, 5)
	All	CAAR	-4.00%	0.57%	-4.58%	-3.80%	0.11%	-3.91%
	countries	Cross-sec	-4.271^{***}	0.902	-6.408^{***}	-5.427***	0.272	-6.597***
	N = 362	Prob.	0.000	0.367	0.000	0.000	0.786	0.000
		Sign test	-2.992^{***}	1.123	-5.524***	-5.313^{***}	0.806	-5.313^{***}
146		Prob.	0.003	0.261	0.000	0.000	0.420	0.000
	 Egypt 	CAAR	-5.63%	-1.02%	-4.61%	-4.07%	-0.41%	-3.66%
	N = 58	Cross-sec	-2.360 **	-0.725	-2.341 **	-2.210**	-0.468	-2.327^{**}
		Prob.	0.018	0.468	0.019	0.027	0.639	0.020
		Sign test	-1.341	-0.552	-2.393^{**}	-1.078	-0.288	-2.131^{**}
		Prob.	0.180	0.581	0.017	0.281	0.773	0.033
	Malaysia	CAAR	-0.94%	0.56%	-1.50%	-1.33%	0.31%	-1.65%
	N = 43	Cross-sec	-0.638	0.533	-1.369	-1.173	0.502	-1.842*
		Prob.	0.523	0.594	0.171	0.241	0.616	0.065
		Sign test	0.775	0.4691	-1.063	-1.676*	0.469	-0.756
		Prob.	0.438	0.639	0.288	0.094	0.639	0.449
	Pakistan	CAAR	-2.93%	-0.73%	-2.20%	-3.50%	-1.05%	-2.45%
	N = 43	Cross-sec	-0.974	-0.442	-1.042	-1.696*	-0.913	-1.571
		Prob.	0.330	0.659	0.297	0.090	0.361	0.116
		Sign test	-2.072^{**}	-0.542	-1.766*	-2.990^{***}	-0.542	-2.072^{**}
		Prob.	0.038	0.588	0.077	0.003	0.588	0.038
	Saudi	CAAR	0.00%	1.76%	-1.76%	-0.10%	0.43%	-0.53%
	Arabia	Cross-sec	-0.002	0.972	-1.491	-0.073	0.426	-0.476
	N = 53	Prob.	0.998	0.331	0.136	0.942	0.670	0.634
		Sign test	-0.069	0.755	-0.895	-0.345	0.755	-0.345
		Prob.	0.945	0.450	0.371	0.730	0.450	0.730
	Turkey	CAAR	-5.81%	1.10%	-6.90%	-5.63%	0.44%	-6.06%
	N = 165	Cross-sec	-3.865***	1.040	-5.832***	-4.880***	0.643	-6.084***
		Prob.	0.000	0.298	0.000	0.000	0.520	0.000
		Sign test	-2.939***	1.602	-4.818^{***}	-4.661***	0.976	-4.974***
Table 3.		Prob.	0.003	0.109	0.000	0.000	0.329	0.000

Cumulative average abnormal returns for the sampled countries **Note(s)**: CAAR refers to cumulative average abnormal return, which is the multi-day effect indicator. Event windows are shown in paranthesis. Cross-sec represents cross-sectional *t*-test statistics results. *p < 0.1, **p < 0.05, ***p < 0.01

post-announcement periods. After five days of the event occurrence, -3.91% CAAR is detected. However, it deteriorates to -4.58% until the 10th day. Post-announcement period's abnormal returns for Egypt and Turkey are strong since both tests approve the presence of the anomaly. Sign test results fail to reject abnormal returns of Egypt for (-5, 5) and (-10, 10)event wdows. However, the results of the post-announcement periods for 5 and 10 days are significant at 5% level for this country. Investors in Turkey react to rights issue announcements as not favourable news, since the worst return performance, which is around -6% for the (0,5) event window, is recorded among the sample countries. This result is in line with Adaoglu (2006) who finds around -7% return anomaly for the same event window in Turkey. Although return anomaly is detected in Pakistan, it is not strong since the anomaly case occurs only for (-5, 5) event window. Cross-sectional *t*-test statistics result is slightly above the 10% level, which is the failure of the robustness for (0, 5) event window. Nonetheless, -2.45% CAAR is calculated in this country, which is the third-lowest after Turkey and Egypt. On the other hand, for Malaysia and Saudi Arabia, none of the cases is found significant, which means that there is no return anomaly during rights issue announcements in these countries. Finally, insider trading activity, which can be observed by obtaining abnormal return movements before the event occurrence, is not detected for all countries.

A possible explanation for negative market reaction could be the profile of the stock market investors. Short-term investors who mostly trade just for speculation purpose may not welcome the rights offerings (Adaoglu, 2006). Since most of them try to increase their capital via daily price changes, they may not want to wait until the end of the rights issue process, which normally takes more than a month. Thus, after receiving this news, short-term investors more likely decide to sell their shares, which may cause a fall in the share price.

Figures 1 and 2 demonstrate how the total effect is formed around the event days in the sample countries. In Figure 1, multiple-day effects are presented by using CAAR data. However, to see the single-day abnormal return variations around the event day, average abnormal returns (AARs) are shown in Figure 2. To make a better comparison among countries, the vertical axis of each figure is determined as the same. In Egypt, Pakistan and Turkey, the impact of rights issue announcements on stocks' return is seen after the event takes place.

3.2 The effect of leverage level on abnormal returns

One-way ANOVA analysis is applied to investigate whether abnormal returns differ according to the companies' debt levels. Companies are divided into four groups according to the quartile ranges of debt levels. The first quartile represents companies with low leverage level, while the fourth quartile includes highly leveraged companies. Figure 3 demonstrates the box-plots of these quartiles according to abnormal return levels. Visually, it seems the medians of groups are not different from each other. However, all medians are calculated below zero. This refers that regardless of the debt level, rights issue announcements are received as bad news by the investors in sampled countries. One-way ANOVA provides statistical results to interpret the findings. Table 4 includes the CARs findings for (0, 5) and (0, 10) event windows. In both cases, models are found insignificant. Thus, the null hypothesis of one-way ANOVA, which refers that there is no difference in means across groups, cannot be rejected. This means that the CAR level for the pooled sample does not change according to the leverage level of companies. Findings of ANOVA analysis are in line with Tan *et al.* (2002) and Alhashel and Alojayan (2015).

To further analyze the debt level's impact on abnormal returns, OLS regression is performed for the pooled sample and each country separately. CAR for each country is regressed with the companies' debt-level variable, which is the total-debt-to-total-assets ratio, for the post-announcement periods. Findings suggest that debt-level coefficient is significant only in Egypt for both event windows. A negative sign represents that return anomaly is worse for the highly leveraged companies compared to less-leveraged ones. Results for Egypt are not consistent with Lee *et al.* (2014) and Sartika *et al.* (2016) who assert that abnormal return is positively associated with high debt level. The reason for this can be country-specific factors such as the availability of debt-financing opportunities. Although the remaining sample countries' results are not significant, the debt-level coefficient for the pooled sample is significant at the 10% level. To check the robustness of the results that are documented in Panels A and B of Table 5, we use a proxy variable for leverage level, which is the total-debt-to-total-capital ratio. According to the findings in Panel C, the coefficient for the pooled sample becomes insignificant for both event windows. However, the negative and significant result is still valid in Egypt even though the explanatory power of variation is decreased slightly.

3.3 The effect of Shariah compliance on return anomaly

The last part of the analysis compares the means of CARs for Sharī'ah-compliant and noncompliant groups. Two sample independent *t*-test results in Panel A of Table 6 suggest that average of CAR for Sharī'ah-compliant firms is statistically different from the CAR of noncompliant firms for (0, 10) event window. Both groups reacted negatively to the rights issue Does leverage level matter?



Cumulative average abnormal return results in 21 days around the event according to the constant return model

Note(s): CAAR refers to cumulative average abnormal return, which is the multi-day effect indicator. (-10,10) is the event window 21 days around the rights issue announcement and t = 0 is the event day. CMR means constant mean return model

announcements. However, when two means are compared in magnitude, the mean of the noncompliant group is lesser by 3.80% than the compliant ones. Nonetheless, although abnormal returns for Sharī'ah-compliant group is less negative than non-compliant group for (0, 5)event window, as it is described in Panel B, we cannot conclude that average of CARs is statistically different. Thus, we conclude that results differ according to event window selection. However, in both cases, Sharī'ah-compliant companies perform better. To further compare these two groups, we extend the event window as (-10, 20) to see 30-day abnormal return behaviours. Here, the aim is to understand at which day CAAR for Sharī'ah-compliant portfolio reaches the break-even point. Figure 4 shows that abnormal returns for both groups act in the same direction and deteriorate until the 5th day for the post-announcement period.



Note(s): AAR refers to average abnormal return, which is the single-day effect indicator. (-10,10) is the event window 21 days around the rights issue announcemt and t = 0 is the event day. CMR means constant mean return model

Then, Sharī'ah-compliant firms start to recover the losses and reach the break-even abnormal return level at the end of the 18th day after the event. However, abnormal returns for non-compliant firms continue to decrease until the end of the analysis period. This refers that negative reaction is temporary for compliant firms.

There can be two reasons to explain this movement. First, Sharīʿah-compliant companies are more resistant to market downturns, thanks to the less risky nature as mentioned in Saiti *et al.* (2014), Alam and Rajjaque (2016) and Ashraf *et al.* (2017). This assertation is consistent with the findings of this paper. Second, the credibility of non-compliant firms could be lower than their compliant counterparts. Investors may conclude that the ability to increase

Figure 2. Average abnormal return results 21 days around the event according to the CMR



	All	Egypt	Malaysia	Pakistan	Saudi Arabia	Turkey
Panel A CAR (0, 10) and TDTA TDTA R ² R ²	$\begin{array}{c} -0.0603^{*}\left(-1.7451\right)\\ -3.2520^{***}\left(-2.3474\right)\\ 280\\ 0.011\end{array}$	-0.2785** (-2.0309) 3.1951 (0.7578) 46 0.086	$\begin{array}{c} 0.0323 (0.4932) \\ -2.2033 (-0.9988) \\ 42 \\ 0.006 \end{array}$	$\begin{array}{c} 0.0840\ (0.9226)\\ -8.5702^{**}\ (-2.5375)\\ 37\\ 0.024\end{array}$	$\begin{array}{c} 0.0514 \ (0.7909) \\ -6.0312^{**} \ (-2.1487) \\ 26 \\ 0.025 \end{array}$	$\begin{array}{c} -0.0695 \ (-1.3745) \\ -4.4596 \ast \ (-1.9666) \\ 129 \\ 0.015 \end{array}$
	All	Egypt	Malaysia	Pakistan	Saudi Arabia	Turkey
Panel B CAR(0, 5) and TDTA TDTA oons R^2	$\begin{array}{c} -0.0484^{*} \ (-1.6907) \\ -2.6754^{**} \ (-2.3289) \\ 280 \\ 0.010 \end{array}$	-0.1826^{*} (-1.7908) 1.5435 (0.4922) 46 0.068	$\begin{array}{c} 0.0032 \ (0.0593) \\ -1.5916 \ (-0.8694) \\ 42 \\ 0.000 \end{array}$	$\begin{array}{c} 0.0414 \ (0.5463) \\ -5.5376^{*} \ (-1.9690) \\ 37 \\ 0.008 \end{array}$	$\begin{array}{c} 0.0556 \left(1.0131 \right) \\ -4.5690^{*} \left(-1.9288 \right) \\ 26 \\ 0.041 \end{array}$	$\begin{array}{c} -0.0568\ (-1.3154)\\ -3.8541^{**}\ (-1.9887)\\ 129\\ 0.013\end{array}$
		All_CAR (0, 5)	All_CAR (0,	10) Egypt	CAAR (0, 5)	Egypt_CAAR (0, 10)
Panel C proxy for the leverage leverage Leverage Leverage Leverage $\sum_{cons}^{cons} R^2$ Note(s): CAR refers to cumulative event windows for after announce	<i>al (TDTC)</i> -0 -3 -3 e abnormal returns; TT ement periods <i>t</i> statist	.0102 (-0.7341) .7780*** (-4.2592) .283 0.002 .07A is the total-debt-to- ics in parentheses. * <i>p</i> ·	-0.0138 (-0.85 -4.5582*** (283 0.023 0.023 0.01 **∱ < 0.05, ***	58) -0.100 4.2579) 1.111 TC stands for the total- p < 0.01	59* (-1.6896) 29 (0.3724) 47 0.060 debt-to-total-capital ra	-0.1603* (-1.8976) 2.4895 (0.6181) 47 0.074 tio. (0, 10) and (0, 5) are
Table 5. OLS regression results					151	Does leverage level matter?

1ES 28,2		Shariah compliant	Shariah non-compliant
152	Panel A: CAR (0, 10) difference for Shariah non-compliant and compliant companies Mean Variance Observations Df <i>t</i> -stat Prob.	-0.0253 0.0135 96 301 2.270^{**} 0.024	-0.0633 0.0207 207
Table 6. Mean of CAR difference t-test results for Sharīʿah-compliant	Panel B: CAR (0, 5) difference for Shariah non-compliant and compliant companies Mean Variance Observations df <i>t</i> -stat Prob.	-0.0357 0.0084 97 303 0.715 0.4199	-0.0461 0.0168 208

Note(s): CAR refers to cumulative abnormal returns; *i*-stat represents the statistical test results for two-tailed independent two samples assuming equal variances. **p < 0.05



Figure 4. CAR comparison for Shariah non-compliant and compliant companies

companies

profitability after the capital raise is less possible for non-compliant firms. Jung *et al.* (1996) and De Jong and Veld (2001) report that when the market could judge the purpose of the equity issue, a less negative stock price reaction is observed.

4. Conclusion

Raising capital via rights issue is an alternative source to interest-bearing financing in Islamic countries. This paper aims to examine how the announcements of rights issues are perceived by investors in five Islamic countries and whether the leverage level of firms is a determinant on the variation in share prices around announcement days. Then, study also aims to show if return anomaly differs according to Shariah compatibility. First, we perform the event study technique to detect return anomaly on the sampled countries. Results show that strong return anomaly holds for Egypt and Turkey for post-announcement periods,

which are consistent with the existing literature. For Pakistan, abnormal return is significant only in one case. Robust test results do not support the presence of return anomaly in Malaysia and Saudi Arabia. Second, one-way ANOVA and OLS regression analyses are conducted to understand the leverage level effect on abnormal returns. Result for Egypt is found significant with a negative sign. This refers that when highly leveraged companies announce a rights issue, abnormal returns occur more negative than low-leveraged ones in this country. Findings are robust when an alternative proxy is used for the debt level. Finally, average cumulated abnormal returns for Sharī'ah-compliant and non-compliant firms are compared. With the passing of days, the return performance of Sharī'ah-compliant firms is distinguished from others.

We conclude that market inefficiency exists among the stock markets of the sample countries in which negative market reaction is detected after the rights issue announcements. A possible explanation of the inefficiency is that there exists information asymmetry between investors and company managers. In general, investors evaluate the rights issue announcement as a bad signal, which means that the company may not perform well operationally or financially. Thus, they want to sell their shares after the announcement. Return anomaly magnitude can be diminished by increasing the number of alternative sources of long-term financing in these countries. Also, since short-term investors could be one reason for the negative market reaction, regulatory bodies should discourage them by applying some level of tax on their capital gains that are obtained during short-term transactions. Finally, the credibility of Sharī'ah-compliant firms seems higher since negative abnormal returns are disappeared within 20 days after the announcement. Although the reaction is negative in general for both groups, the market is convinced about the use of proceeds that Sharī ah-compliant firms are more likely to direct newly raised capital in more profitable activities than non-compliant ones. Thus, existing shareholders in Sharī ahcompliant companies are recommended to participate in the offering to minimize the wealth loss caused after the announcement. Also, our findings suggest that investors who do not own shares of these companies can take advantage of undervalued prices on average if they invest five days after the announcement. This paper contributes to the existing literature regarding market reaction during rights issue announcements from the perspective of Islamic countries and Shariah compliance. We plan to increase the number of countries together with a wider number of variables for a future study. Also, an industry-based investigation will allow us to examine whether return anomaly differs according to the operational fields of the companies. Analyzing the long-term price performance of the right issuing companies is also on the agenda.

References

- Adaoglu, C. (2006), "Market reaction to 'unsweetened' and 'sweetened' rights offerings in an emerging European stock market", *Journal of Multinational Financial Management*, Vol. 16 No. 3, pp. 249-268.
- Al-Khazali, O., Lean, H.H. and Samet, A. (2014), "Do Islamic stock indexes outperform conventional stock indexes? A stochastic dominance approach", *Pacific-Basin Finance Journal*, Vol. 28, pp. 29-46.
- Alam, N. and Rajjaque, M.S. (2016), "Sharī'ah-compliant equities: empirical evaluation of performance in the European market during credit crunch", in Harrison, T. and Ibrahim, E. (Eds), *Islamic Finance*, Palgrave Macmillan, Cham, pp. 122-140.
- Alhashel, B.S. and Alojayan, H.H. (2015), "Drivers of price reaction to rights issue announcements in the Kuwait stock exchange", *Applied Economics*, Vol. 47 No. 59, pp. 6425-6437, doi: 10.1080/ 00036846.2015.1071476.

Does leverage level matter?

IES 28.2	Ariff, M., Khan, W.A. and Baker, K.H. (2007), "Are share price reactions to rights offerings sensitive to different economic conditions?", <i>Journal of Asia Business Studies</i> , Vol. 1 No. 2, pp. 10-20.
20,2	Armitage, S. (1995), "Event study methods and evidence on their performance", <i>Journal of Economic Surveys</i> , Vol. 9 No. 1, pp. 25-52.
154	Ashraf, D., Felixson, K., Khawaja, M. and Hussain, S.M. (2017), "Do constraints on financial and operating leverage affect the performance of Islamic equity portfolios?", <i>Pacific-Basin Finance Journal</i> , Vol. 42, pp. 171-182.
104	Balachandran, B., Faff, R., Theobald, M. and Van Zijl, T. (2012), "Rights offerings, subscription period, shareholder takeup, and liquidity", <i>Journal of Financial and Quantitative Analysis</i> , Vol. 47 No. 1, pp. 213-239.
	Bhatt, V. and Sultan, J. (2012), "Leverage risk, financial crisis, and stock returns: a comparison among Islamic, conventional, and socially responsible stocks", <i>Islamic Economic Studies</i> , Vol. 20 No. 1, pp. 87-143.
	Cowan, A.R. (1992), "Nonparametric event study tests", <i>Review of Quantitative Finance and Accounting</i> , Vol. 2 No. 4, pp. 343-358.
	De Jong, A. and Veld, C. (2001), "An empirical analysis of incremental capital structure decisions under managerial entrenchment", <i>Journal of Banking and Finance</i> , Vol. 25 No. 10, pp. 1857-1895.
	Eckbo, B.E. and Masulis, R.W. (1992), "Adverse selection and the rights offer paradox", <i>Journal of Financial Economics</i> , Vol. 32 No. 3, pp. 293-332.
	Farooq, O. and AbdelBari, A. (2015), "Earnings management behaviour of Shari'ah-compliant firms and non-Shari'ah-compliant firms", <i>Journal of Islamic Accounting and Business Research</i> , Vol. 6 No. 2, pp. 173-188.
	Hansen, R.S. (1988), "The demise of the rights issue", <i>Review of Financial Studies</i> , Vol. 1 No. 3, pp. 289-309.
	Heron, R.A. and Lie, E. (2004), "A comparison of the motivations for and the information content of different types of equity offerings", <i>Journal of Business</i> , Vol. 77 No. 3, pp. 605-632.
	Holderness, C.G. and Pontiff, J. (2016), "Shareholder nonparticipation in valuable rights offerings: new findings for an old puzzle", <i>Journal of Financial Economics</i> , Vol. 120 No. 2, pp. 252-268.
	Iqbal, A. (2008), "The importance of the sequence in UK rights issues", Journal of Business Finance and Accounting, Vol. 35 Nos 1-2, pp. 150-176.

- Ismail, W.A.W., Kamarudin, K.A. and Sarman, S.R. (2015), "The quality of earnings in Shari'ahcompliant companies: evidence from Malaysia", *Journal of Islamic Accounting and Business Research*, Vol. 6 No. 1, pp. 19-40.
- Jawadi, F., Jawadi, N. and Louhichi, W. (2014), "Conventional and Islamic stock price performance: an empirical investigation", *International Economics*, Vol. 137, pp. 73-87.
- Jung, K., Kim, Y.C. and Stulz, R. (1996), "Timing, investment opportunities, managerial discretion, and the security issue decision", *Journal of Financial Economics*, Vol. 42 No. 2, pp. 159-185.
- Kabir, R. and Roosenboom, P. (2003), "Can the stock market anticipate future operating performance? Evidence from equity rights issues", *Journal of Corporate Finance*, Vol. 9 No. 1, pp. 93-113.
- Kang, J.K. and Stulz, R.M. (1996), "How different is Japanese corporate finance? An investigation of the information content of new security issues", *Review of Financial Studies*, Vol. 9 No. 1, pp. 109-139.
- Kim, J.H. and Song, K. (2020), "The choice of SEO method in Korea: rights vs. public offers", Journal of Financial Markets, Vol. 51, doi: 10.1016/j.finmar.2020.100532.
- Kim, W., Ko, Y. and Wang, S.F. (2019), "Debt restructuring through equity issues", Journal of Banking and Finance, Vol. 106, pp. 341-356.
- Kothari, S.P. and Warner, J.B. (2007), "Econometrics of event studies", in Eckbo, B.E. (Ed.), Handbook of Empirical Corporate Finance, Elsevier, pp. 3-36, doi: 10.1016/B978-0-444-53265-7.50015-9.

- Lee, C.C., Poon, W.C. and Sinnakkannu, J. (2014), "Why are rights offers in Hong Kong so different?", *Pacific-Basin Finance Journal*, Vol. 26, pp. 176-197.
- Mateus, C., Farinha, J. and Soares, N. (2017), "Price discounts in rights issues: why do managers insist on what investors hate?", *European Business Review*, Vol. 29 No. 4, pp. 457-475.
- Rejeb, A.B. and Arfaoui, M. (2019), "Do Islamic stock indexes outperform conventional stock indexes? A state space modeling approach", *European Journal of Management and Business Economics*, Vol. 28 No. 3, pp. 301-322.
- Saiti, B., Bacha, O.I. and Masih, M. (2014), "The diversification benefits from Islamic investment during the financial turmoil: the case for the US-based equity investors", *Borsa Istanbul Review*, Vol. 14 No. 4, pp. 196-211.
- Sartika, F. and Djumair, S. (2016), "The effect of growth opportunities, issue size, leverage, ownership concentration, and subscription price discount toward cumulative abnormal return: study on right issue event", *Global Journal of Business and Social Science Review*, Vol. 4 No. 3, pp. 98-107.
- Slovin, M.B., Sushka, M.E. and Lai, K.W. (2000), "Alternative flotation methods, adverse selection, and ownership structure: evidence from seasoned equity issuance in the UK", *Journal of Financial Economics*, Vol. 57 No. 2, pp. 157-190.
- Tan, R.S., Chng, P.L. and Tong, Y.H. (2002), "Private placements and rights issues in Singapore", *Pacific-Basin Finance Journal*, Vol. 10 No. 1, pp. 29-54.
- Tas, O., Tokmakcioglu, K., Ugurlu, U. and Isiker, M. (2016), "Comparison of ethical and conventional portfolios with second-order stochastic dominance efficiency test", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 9 No. 4, pp. 492-511.
- Tsangarakis, N.V. (1996), "Shareholder wealth effects of equity issues in emerging markets: evidence from rights offerings in Greece", *Financial Management*, Vol. 25 No. 3, pp. 21-32.

Further reading

- Al Meezan Investment (2020), "Companies for KMI-30 index recomposition based on accounts for June 2019", available at: https://www.almeezangroup.com/investor-education/Shariah-methodology/ (accessed 30 June 2020).
- Argaam Investment (2020), "Shariah compliant companies for Tadawul all-share index (TASI)", available at: https://www.argaam.com/en/company/Shariahcompanies/1/4/3 (accessed 30 June 2020).
- BMD (2020), "Katılım endeksi uygunluk durumu ve arındırma oranları (Participation index screening results as of 1 July 2020)", available at: https://bmd.com.tr/page/duyuru_detay/33/katilim-endeksi-uygunluk-durumu-ve-arindirma-oranlari-hk.htm (accessed 30 June 2020).
- MacKinlay, A.C. (1997), "Event studies in economics and finance", Journal of Economic Literature, Vol. 35 No. 1, pp. 13-39.
- Security Comission Malaysia (2020), "List of Sharī'ah-compliant securities as at 29 may 2020", available at: https://www.sc.com.my/development/islamic-capital-market/list-of-Sharī'ahcompliant-securities-by-scs-Shariah-advisory-council (accessed 30 June 2020).
- Ziraat Portfoy (2020), "List of Shari'ah-compliant companies as at 1 July 2020", available at: https:// www.ziraatportfoy.com.tr/TRK/endeks-sirketleri (accessed 30 June 2020).

Corresponding author

Murat Isiker can be contacted at: isikermurat@hotmail.com

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm Or contact us for further details: permissions@emeraldinsight.com

Does leverage level matter?

The current issue and full text archive of this journal is available on Emerald Insight at: https://www.emerald.com/insight/1319-1616.htm

IES 28,2

156

Received 13 September 2020 Revised 25 January 2021 Accepted 27 April 2021

Non-linear relationship between foreign currency derivatives and firm value: evidence on Sharīʿah compliant firms

Zaminor Zamzamir@Zamzamin Universiti Malaysia Kelantan, Pengkalan Chepa, Malaysia Razali Haron

IIUM Institute of Islamic Banking and Finance, International Islamic University Malaysia, Kuala Lumpur, Malaysia Zatul Karamah Ahmad Baharul Ulum Universiti Sultan Azlan Shah, Kuala Kangsar, Malaysia, and

Anwar Hasan Abdullah Othman IIUM Institute of Islamic Banking and Finance, International Islamic University Malaysia, Kuala Lumpur, Malaysia

Abstract

Purpose – This study examines the impact of hedging on firm value of Sharī'ah compliant firms (SCFs) in a non-linear framework.

Design/methodology/approach – This study employs the system-GMM for dynamic panel data to examine the influence of derivatives usage on firm value (Tobin's *Q*, ROA and ROE). The sample comprised of 59 non-financial SCFs engaged in derivatives from 2000 to 2017 (18 years). The Sasabuchi-Lind-Mehlum (SLM) test for *U*-shaped is performed to confirm the existence of the non-linear relationship.

Findings – This study concludes that hedging significantly contributes to firm value of SCFs based on the non-linear framework. This study suggests that, first, the non-linear relationship occurs due to the different degree of derivatives usage and risk. Second, firms practice selective hedging to maintain the upside potential of firm value.

Research limitations/implications – This study has important implications. First, the importance of risk management via derivatives to increase firm value, second, the evidence of selective hedging from the non-linear relationship between derivatives and firm value and third, the need for quality reporting on derivatives engagement by firms in line with the required accounting standard on derivatives.

Originality/value – This study fills the gap in the literature in relation to the risk management strategies of SCFs in three aspects. First, re-examines the relationship using recent data. Second, examines the relationship in the non-linear framework as the limited studies found in the literature on Malaysian firms are only based on linear relationship. Third, determines whether hedging undertaken by firms is optimal as this can only be addressed using the non-linear framework. This study is robust to the various definitions of firm value (Tobin's *Q*, ROA and ROE) and non-linear methodologies.

Keywords Hedging, Derivatives, Firm value, Sharī'ah compliant firms, Non-linear Paper type Research paper



Islamic Economic Studies Vol. 28 No. 2, 2021 pp. 156-173 Emerald Publishing Limited e-ISSN: 2411-3395 p-ISSN: 1319-1616 DOI 10.1108/IES-09-2020-0036

JEL Classification — G3. KAUJIE Classification — I3, I81

© Zaminor Zamzamir@Zamzamin, Razali Haron, Zatul Karamah Ahmad Baharul Ulum and Anwar Hasan Abdullah Othman. Published in *Islamic Economic Studies*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

1. Introduction

Risk management practices undertaken by firms are meant to reduce risk. Understanding the most critical risks facing the firms enables stakeholders especially managers to carry out the necessary measures to mitigate the adverse consequence of risk on firm value. Recently, a massive growth in derivatives usage is reported among firms around the world (Bartram, 2019; Siddika and Haron, 2020). Thus, risk management is essential to firms' operation and its failures will affect the value of the firms. Good risk management practice is the priority of shareholders. Bouwman (2014) stated that firms use derivatives as an effective tool for managing risk. In line with this argument, firms used derivatives for risk protection (Antônio *et al.*, 2019) and to minimize the impact of earnings volatility and interest rate risk (Barton, 2001; Siddika and Haron, 2020). Dewally and Shao (2013) stated derivatives are used to reduce risk exposure of the firm. Derivatives become an effective risk management instrument for hedging during the period of uncertainty and ultimately to increase the value of the firm (Baber, 2018; Bartram, 2019).

The global financial crisis of 2007/2008 had shaped the scope of derivatives instruments in most countries across the world. The collapse of some established and prominent US banks and financial institutions such as the Lehman Brothers, Merrill Lynch and National City Bank raised many questions about the effectiveness of risk management using derivatives. Furthermore, the failure of risk management using derivatives has led to the collapse of non-financial firms as well during the 2007/2008 crisis for firms in Brazil (Zeidan and Rodrigues, 2013). Dodd (2009) mentioned that 12 countries incurred losses in derivatives due to poor risk management pertaining to exotic derivatives losses in the emerging markets. Bartram (2019) reported that the huge losses related with derivatives have demanded proper reporting relating to derivatives by firms. Despite that, derivatives continue to be an effective hedging instrument among the firms for risk management (Ayturk *et al.*, 2016; Seng and Thaker, 2018; Bartram, 2019; Siddika and Haron, 2020).

The current study focuses on the impact of hedging using foreign currency derivatives (FCDs) and firm value which has limited discussion and empirical evidence in the context of Islamic finance. Mohamad et al. (2014) stated that empirical studies on Islamic hedging are still limited due to the lack of awareness on Islamic hedging and poor documentation of Islamic hedging in annual reports of firms. Abdul-Rahim et al. (2019) in their studies using linear regression found that none of the samples of the Sharī ah compliant firms (SCFs) in Malaysia report any use of Islamic hedging instrument, either in the form of wa'd or tawarruq. They further recorded that SCFs are twice as likely as their conventional counterparts in adopting foreign exchange hedging. Chong et al. (2014) reported that the volume of financial derivatives traded in Malaysia is relatively low compared to the neighboring countries. They stated further that this is partly due to the lack of understanding on derivatives among the managers of the firms. On the same notion, Ameer et al. (2011) reported that the awareness of derivatives among firms in Malaysia is still low and managers do not really understand the function and the importance of derivatives as a hedging instrument especially during the period of economic uncertainty. They also added that the practice of derivatives among Malaysian firms is not as extensive as those in the developed countries due to the lack of exposures on derivatives, which are generally considered to be costly and complex products. This is proven by Lau (2016) who reported merely 26.8% of Malaysian firms have derivatives contracts in their operation while the rest of them did not use any derivatives. Besides, Abdullah and Ismail (2017) also found that only 29.6% (48 firms) of the Malaysian listed firms chose to provide information on their derivatives positions while the rest of the firms failed to do so. This phenomenon is also reported by Ameer (2009) who found 298 firms in Malaysia do not participate in any form of hedging instruments during the period of his study.

Islamic banking and finance have grown rapidly all around the world. The Islamic financial asset was worth USD \$2.431 trillion (end 2017) and grew to around USD

The impact of hedging on firm value

\$2.591 trillion (end 2018) (IFCI, 2019). Following this, the use of derivatives instruments among the SCFs as component of Islamic capital market is highly important for risk management and value protection. Mitchell (2010) and Bartram (2019) stated one of the factors that contribute to the global financial crisis is the failure of risk management while (Nafis and Shadique, 2016; Baber, 2018; Nomran and Haron, 2020) commented that during the financial crisis, Islamic finance is better equipped to cope with the economic downturn compared to the conventional finance. Consequently, the financial crisis has brought attention on the weakness of the conventional financial system and the proponents of Islamic finance suggested Islamic finance as an alternative to conventional finance (Bouslama and Lahrichi, 2017; Godil et al., 2020). Nevertheless, SCFs as part of the Islamic capital market are also experiencing the same risks as its conventional counterparts such as the currency risk, interest rates risk, commodity risk and operational risk (Baber, 2018). Thus, the future of Islamic finance very much depends on its effectiveness in dealing with the rapidly changing financial system landscape, and this includes the risk management aspect. In this regard, SCFs need to be well positioned to overcome the challenges posed by the financial system landscape in terms of the latest risk management capabilities and operational system. The ability of the firms to effectively manage the risk affecting its businesses is therefore crucial for its sustainability (Bouslama and Lahrichi, 2017).

With regard to risk management using derivatives, past research have documented that the relationship between derivatives usage and firm value is a linear one. However, some researchers (e.g. Adam and Fernando, 2006; Adam, 2009; Nguyen and Faff, 2010b; Mnasri et al., 2017; Huan and Parbonetti, 2019) argued that a non-linear relationship is more realistic than a linear one since economic conditions seldom remain constant and may change unexpectedly thus may affect firm value. If the relationship between derivatives and firm value is believed to be linear, while the relationship actually has a cause regime switching (non-linear), then the linear model may not be reliable. Through non-linear properties, a threshold point could be ascertained in the relationship between derivatives and firm value, which is necessary for managers to monitor the amount of derivatives usage. This is, however, not possible under the linear properties. Appropriate measurement therefore is required to ensure the validity and reliability of the estimation in the nonlinearity relationship between derivatives and firm value. A clear understanding of the relationship would enable managers to clarify specific issues and take appropriate control and monitoring decision on derivatives activities. Therefore, based on the empirical evidence, there exists non-linear relationship between hedging and firm value.

Centered on the above arguments, this study is motivated based on first; there is a lack of empirical evidence on the non-linear relationship between the derivatives and firm value especially on Islamic hedging practices. Second, almost all past studies conducted in Malaysia recorded lack of awareness, poor in reporting hedging instruments and most of the firms do not practice extensive hedging as those in the developed countries (Seng and Thaker, 2018). Third, this study analyses the non-linear relationship between the SCFs that engaged in derivatives and its firm value, where Islamic hedging is still limited because of the lack of awareness on Islamic hedging and poor documentation of Islamic hedging in annual reports of firms (Mohamad *et al.*, 2014).

Considering these motivations, this study therefore aims to fill the gap in the literature in relation to the risk management strategies of SCFs in three aspects, first, to re-examine the relationship using quite most recent data on SCFs, second, to examine the relationship in a non-linear framework since the limited studies found on Malaysian firms in the literature are only based on linear relationship and third, to determine whether hedging undertaken by SCFs in Malaysia is optimal as this can only be addressed using the non-linear framework.

158

IES

28,2

2. Literature review

2.1 Hedging from Islamic perspective

From the Islamic perspective, hedging is a method of precaution or minimizing loss from risk that persistently exists in the financial market. Many Qur'ānic verses offer guidelines and suggest men to have risk management in their life. At the same time there is a section in the Qur'ān that discusses the financial context of risk management implying that risk management is significantly important, as mentioned in Surah Yusuf (12:47–48):

Yusuf conveyed, "You will plant for seven years consecutively; and what you harvest leave in its spikes, except a little from which you will eat. Then after that seven difficult (years), which will consume what, you save for them, except a little from which you will store. Then will come after that a year in which the people will be given rain and in which they will press (olive and grapes)".

Prophet Yusuf translated the dream of the King based on the verse. Subsequent to the seven years of prosperity in Egypt, the Kingdom will experience seven years of dry season and to overcome the upcoming disaster, the Prophet recommended the King to strategize the economy of the country. Specifically, the people have to prepare the planting of crops and to store for preparation for the long seven years drought. As a result, the people were able to survive when the dry season hit for the next seven years (Kathir, 1988). Therefore it is evidence that managing risk is vital for risk if not well managed, can bring destruction.

SCFs must practice effective risk management and this could be achieved by engaging in hedging position. Effective risk management among the SCFs is important because these firms are also experiencing the same risks as their conventional counterparts, such as currency risk, interest rates risk, commodity price risk and operational risk (Ariffin, 2012). The SCFs are bound by Islamic principles. Nevertheless, their performance is to be comparable with the conventional firms. In this regard however, Mohamad *et al.* (2014) stated the risk management in Islamic finance is still at infancy stage and the use of hedging instruments is found to be rather limited. SCFs nevertheless need to be well positioned to overcome the challenges posed by the current financial landscape in terms of the latest risk management capabilities and operational system.

Islamic hedging is used to minimize the risk resulting from actual transactions, such as a sales, lease or investments. Khan (2000) stated that hedging is a device, which reduces the uncertainty of future price movements. Such a control of risk is critically important, particularly, for firms that maintain assets in excess of equity. Khan also stated that the permissibility of hedging in Islamic finance is restricted to genuine hedging, not a speculative one. There are two key differences between Islamic and conventional derivative instruments. First, with the intention of benefiting from market performance, Islamic derivative instruments are driven by actual risks and not speculative ventures (Sakti *et al.*, 2016). Second, unlike options, swaps, forwards and futures, Islamic hedging purposes (Khan, 2000). They are still essentially asset-based transactions that are supposed to be free from speculation. Meanwhile, the concept of conventional hedging contradicts the basic Sharī'ah rules as the principles of conventional hedging are based on $rib\bar{a}$ (interest), *gharar* (uncertainty) and *maysir* (gambling/speculation) (Sakti *et al.*, 2016).

Sakti *et al.* (2016) argued that derivatives instruments in the Islamic financial industry are essential due to the need for hedging and risk mitigation. Besides, they have argued that conventional derivatives should not be used in Islamic finance for hedging due to the conventional finance practicing derivatives for speculation. Beside, Wahab *et al.* (2020) employed logistic regression and found that FCDs are significant in predicting hedging among the SCFs in Malaysia.

The impact of hedging on firm value Abdul-Rahim *et al.* (2019) documented that SCFs are found twice as likely as conventional firms to adopt hedging instruments and the Sharī'ah compliant status does not hinder the respecting firms from using the contractual hedging instrument to mitigate risk exposure. Meanwhile Mohamad *et al.* (2014) found that financial firms used hedging instruments to reduce risk exposure such as Islamic forex, cross-currency swap and commodity hedging instrument. In addition, Arif *et al.* (2019) reported that the attitude of managers in relying on the current structure of conventional instruments is one of the key concerns that could threaten Islamic risk management tools in the financial market.

2.2 Empirical studies on hedging

The studies on hedging are voluminous. Some researchers (e.g. Belghitar *et al.*, 2013; Bouwman, 2014; Antônio *et al.*, 2019) recommend that hedging using derivatives is a value increasing strategy for the firm. Hedging theory is first discussed by Stulz (1984). He stated that if external financing is more costly than internal financing, hedging is a value-enhancing activity. This is if it closely matches fund inflows with outflows and decreases the probability that a firm needs to access the capital market. Hedging ensures that a firm has sufficient internal funds to avoid unnecessary fluctuations of risk thus, increases firm value. Stulz (1996) specified that tax incentives, underinvestment cost, financial distress and managerial compensation could increase firm value through hedging. Allayannis and Ofek (2001) reported that the inaccessibility of data on hedging activities causes the lack of empirical investigation on hedging. Furthermore, in the early 1990s, information on derivatives in firms was confidential as it was considered a strategic competitiveness component. In contrast, firms nowadays are required to disclose all information (risk management and financial derivatives) in the off-balance sheet of their annual reports. The availability of information then allowed researchers to examine the value relevance and the usage of derivatives for hedging.

Recent empirical studies linked firm value to hedging with the evidence available for both ends of the debate. Bhagawan and Lukose (2017) reported that to hedge currency exposure, firms are more likely to use derivatives. This is in line with Chong et al. (2014) who found that the use of derivatives is to minimize risk, hence increasing firm value. Besides, Allayannis and Weston (2001) claimed that FCD and firm value are positively significant. They also recorded that firm is exposed to currency risk and the use of derivatives for hedging is to create higher firm value. In contrast, firms that do not hedge will be affected and firm value will drop. Tanha and Dempsey (2017) also found that financial risk (such as interest rates, foreign exchange, equity) and commodity risk have influence on firms to hedge. Besides, Bartram et al. (2011) also found a positive relationship between the use of derivatives and firm value. They examined the effect of hedging on risk and value among non-financial firms from 47 countries and found evidence on the value relevance issue. Conversely, Bae et al. (2017) in their study on firms in the manufacturing and services industries in Korea found that FCDs fail to increase firm value. In another study by Bae and Kim (2016), it was reported that the heavy usage of FCD by Korean firms leads to lower firm risk. However it failed to increase firm value due to inefficient hedging practices of the firms. Magee (2013) found that no relationship between FCD and firm value. Belghitar et al. (2013) also found that there is no significant influence of FCD on firm value in the sample of French non-financial firms.

Conversely, Huan and Parbonetti (2019) found a non-linear relationship between derivatives and firm value. When the use of derivatives is moderate, hedging reduces risk, but aggressive use of derivatives by firms caused risk to increase. Mnasri *et al.* (2017) categorized the relationship between hedging and firm value to be linear in the case of swap, forward and futures but non-linear for options. According to their study, they argued that the relationship is not necessarily linear but also depends on the types of derivatives contracts engaged by the firms. Meanwhile, Adam (2009) stated that large investment program by

160

IES

28,2

H1. The relationship between foreign currency derivatives and firm value of Sharīʿah compliant firms is non-linear.

3. Data and research methodology

3.1 Sample selection

The sample data of this study involves non-financial SCFs engaged in derivatives from 2000 to 2017 (18 years). Firms' engagement in derivatives is identified by referring to their annual reports in the off-balance sheet section in accordance with the standard reporting of financial instruments and disclosure of the MFRS 7 (Financial Instrument Disclosure). As for the selection of SCFs, following Ramli and Haron (2017) the firms need to fulfill the following criteria, i.e. the firm must consistently be Sharī ah compliant every year starting from 2000 until 2017 (18 years) and in accordance with the Securities Commission Malaysia (SC) Sharī ah compliant yearly listing. This is in contrast to the selection of Sharī ah compliant according to only specific cut-off year; say for an example, only based on November 2017 as per SC Sharī'ah compliant listing. Ramli and Haron (2017) argued that the consistency in Shari'ah compliant listing reflects the real Shari'ah compliant status of the firms. Accordingly, there are 177 firms that are consistently being Shari ah compliant from 2000 to 2017 (18 years). Out of these, only firms that engaged in derivatives are chosen, and the engagement in derivatives is irrespective of any years during the study period. Therefore after the filtering process, only 59 firms are engaged in derivatives positions out of the 177 SCFs.

The financial reports of the firms were downloaded from Bursa Malaysia's website in electronic format. The information on firms with derivatives positions are scanned by using the following keywords: risk management, derivatives, foreign exchange forward, forward foreign exchange, forward contract and forward exchange contract. The sample firms in this study include firms in the non-financial sectors covering consumer products, industrial products, plantation, construction, properties, technology, trading and services.

This study utilizes Malaysian data as Malaysia is the leading country in Islamic finance and having the most advanced Islamic capital market (Ledhem and Mekidiche, 2020). Nevertheless, hedging practices among its SCFs are still not well explored and very much lag behind against firms in the developed countries (Wahab *et al.*, 2020). Furthermore, the awareness of derivatives among firms is still low and most managers do not understand the function and the importance of derivatives as a hedging instrument (Ameer *et al.* (2011)) and Islamic hedging is still limited due to the lack of awareness on Islamic hedging and poor documentation of Islamic hedging in annual reports of firms (Mohamad *et al.*, 2014).

3.2 Dependent variable

Tobin's Q acts as a proxy for the dependent variable representing firm value. The measurement of firm value is defined as equity market capitalization (market value) plus total

The impact of hedging on firm value

liabilities (book value) over total assets (book value) (Allayannis *et al.*, 2011; Ayturk *et al.*, 2016; Haron *et al.*, 2020). For robustness check, this study also employed ROA and ROE as alternative measurements for firm value. Data on firms are collected from DataStream database.

3.3 Explanatory variables

Financial derivatives are represented by FCD, valued according to the notional value of the derivatives contracts divided by total assets (Allayannis and Weston 2001; Bartram *et al.*, 2011; Magee, 2013; Ayturk *et al.*, 2016; Bae *et al.*, 2018). Data on FCD are manually collected from the annual reports of the firms.

3.4 Control variables

Ten control variables are included to explain firm value:

(1) Managerial ownership

Adam and Fernando (2006) found managerial ownership influences risk management decision and firm value, further supported by Fahlenbrach and Stulz (2009) and Coles *et al.* (2012). Ameer (2010) recorded a significant relationship between managerial ownership and firm value of Malaysian firms. Seng and Thaker (2018) however found Malaysian managers take less hedging positions when they owned more shares. Managerial ownership is measured based on total shareholding (direct) owned by executive directors over the total common shares outstanding at the end of each year in the firm (Ameer, 2010; Haron *et al.*, 2020).

(2) Access to financial market

Allayannis and Weston (2001), Magee (2013) and Lau (2016) stated that firms paying dividends are less likely to face capital constraints, easy access to financial market and can reduce its dividend to increase investment. Following Allayannis and Weston (2001) and Lau (2016), the proxy for the access to the financial market is, firm that pays dividend in the present year equals "1" and "0" otherwise.

(3) Firm risk

Past studies reported that heavy use of FCD by Korean firms leads to lower firm risk and higher firm value (Choi *et al.*, 2013; Bae *et al.*, 2017). Following these studies, the measurement of firm risk is based on the average SD on daily stock returns of the year and then annualized to yearly return.

(4) Firm size

Past studies reported that firm size has a significant positive relationship with hedging decision, hence increases firm value (Allayannis *et al.*, 2011; Magee, 2013; Lau, 2016). However, Allayannis and Weston (2001) and Ayturk *et al.* (2016) found that firm size is negatively related to firm value. The proxy for the firm size is the natural logarithm of total assets (Lau, 2016; Haron, 2018).

(5) Industrial diversification

Highly diversified industries have a higher value compared to low diversified industries (Allayannis and Weston, 2001; Nguyen and Faff, 2010b; Bartram *et al.*, 2011; Ayturk *et al.*, 2016; Bae *et al.*, 2017; Haron, 2018). This study uses Herfindahl-Hirschman Index (HHI) to control for industrial diversification, measured by computing the total of the squared sales value for each segment as a fraction of total firm sales (Berger and Ofek, 1995; Haron, 2018).

162

IES

28,2

(6) Industry effect

Decision to engage in derivatives by a firm is also influenced by the industry the firm belongs to (Allayannis and Ofek, 2001). If a firm that uses derivatives belongs to a high-Q industry, for example the technology-intensive industry, the firm is expected to generate more profit due to the industry itself (Lau, 2016). To control for industry effect, this study first constructs the industry adjusted Tobin's Q, then computes the log difference between the weight-adjusted industry Q and multi-segment for each firm (Allayannis and Weston, 2001; Ayturk *et al.*, 2016).

(7) Investment growth

Firms tend to have a large investment and depend on future investment opportunities to grow. The growth eventually influences firm value. Investment growth is measured based on the ratio of capital expenditure to sales (Allayannis and Weston, 2001).

(8) Leverage

The capital structure of firm affects firm value. This study uses long-term debt divided by total shareholder's equity to represent leverage (Allayannis and Weston, 2001; Allayannis *et al.*, 2011; Ayturk *et al.*, 2016).

(9) Time

The MFRS guideline states that it is compulsory for Malaysian listed firms to disclose their derivatives exposure in annual reports starting from year 2012 onwards. Following the MFRS, from year 2000–2011 equals "0" and 2012 to 2017 equals "1".

(10) Year crisis

This study also controls for year crisis (dummy) in which the crisis years (2007 and 2008) are categorized as "1" while the non-crisis year (other years) as "0" (Zeidan and Rodrigues, 2013; Abdul Bahri *et al.*, 2018).

4. Regression model

Based on the argument that a non-linear relationship is more realistic than a linear one to examine the impact of derivatives on firm value (e.g. Adam and Fernando, 2006; Adam, 2009; Nguyen and Faff, 2010b; Mnasri *et al.*, 2017; Huan and Parbonetti, 2019), this study employs a non-linear model to examine the non-linear relationship between FCD and firm value in a panel data form by employing a standard quadratic model as follows:

$$Q_{it} = \beta_0 + \gamma Q_{it-1} + \beta_1 FCD_{it} + \beta_2 FCD_{it}^2 + \beta_3 MO_{it} + \beta_4 ACCES_{it} + \beta_5 RISK_{it} + \beta_6 SIZE_{it} + \beta_7 DIV_{it} + \beta_8 INDUSTRY_{it} + \beta_9 GROWTH_{it} + \beta_{10} LEV_{it} + \beta_{11} TIME_{it} + \beta_{12} CRISIS_{it} + \eta_i + \varepsilon_{it}$$

where, Q_{it} is firm value, measured by Tobin's Q for firm i in period t. To capture the persistence in firm value, the lagged value of Tobin's Q is included as an independent variable whereas β_1 , β_2 , β_3 , β_4 , β_5 , β_6 , β_7 , β_8 , β_9 , β_{10} , β_{11} are the slopes parameter to be estimated. The explanatory variable is FCD_{it} (foreign currency derivatives) while the control variables consist of MO_{it} (managerial ownership), ACCES_{it} (access to financial market), RISK_{it} (firm risk), SIZE_{it} (firm size), DIV_{it} (industrial diversification), INDUSTRY_{it} (industry effect), GROWTH_{it} (investment growth), LEV_{it} (leverage), TIME_{it} (dummy time) and CRISIS_{it} (dummy crisis), while η_i is an unobserved firm-specific term and ε_{it} is an error term.

The impact of hedging on firm value

The non-linear model specification is generally similar to the studies of Arcand *et al.* (2015), Abdul Bahri *et al.* (2018) and Law *et al.* (2018) and this is done by incorporating FCD² into the model. The use of the non-linear model is first, to capture the non-linear relationship between FCD and firm value of SCFs and second, to ascertain the nature of the non-linear relationship, either in the form of *U*-shaped or inverted *U*-shaped. When β_1 is negative while β_2 is positive and both are statistically significant, this indicates a *U*-shaped relationship between FCD and firm value. While, if β_1 is positive and β_2 is negative, respectively, and both are statistically signifies an inverted *U*-shaped relationship between derivatives and firm value (Arcand *et al.*, 2015; Abdul Bahri *et al.*, 2018; Law *et al.*, 2018).

In addition, this study performs the Sasabuchi-Lind-Mehlum (SLM) test for U-shaped for robustness check to confirm the existence of the non-linear relationship (U-shaped or inverted U-shaped) in the regression model. The SLM test was first introduced by Sasabuchi (1980), which was later extended by Lind and Mehlum (2010). The SLM test for U-shaped is described below:

$$\begin{aligned} H_0 &= (\beta_1 + \beta_2 \operatorname{FCD}_{\min} \ge 0) \cup \\ (\beta_1 + \beta_2 \operatorname{FCD}_{\max} \ge 0) \\ H_1 &= (\beta_1 + \beta_2 \operatorname{FCD}_{\min} < 0) \cup \\ (\beta_1 + \beta_2 \operatorname{FCD}_{\max} < 0) \end{aligned}$$

where β_1 and β_2 are covariance, FCD_{min} is the minimum value of derivatives and FCD_{max} is the maximum value of derivatives. If the null is rejected, it confirms the presence of *U*-shaped profile in the non-linearity relationship between derivatives and firm value. The *U*-shaped hypothesis in this study relies on the estimate of the quadratic model based on the system-GMM.

This study employed the two-step system-GMM (generalized method of moments) for dynamic panel data (Arellano and Bover, 1995; Blundell and Bond, 1998) to estimate the regression. GMM is effective when the moment conditions are exercised in the model framework and the data with a certain number of moment conditions are specified in the model. Therefore panel GMM provides a solution for the endogeneity issue by substituting the endogenous variables with instrumental variables. System-GMM offers better elasticity to the variance-covariance framework and has greater effectiveness, improves accuracy and addresses endogenous issue in the model (Baltagi, 2005). This study also performs several diagnostic tests that include the validity test of the instruments and serial correlation test (Arellano and Bover, 1995; Blundell and Bond, 1998). The Hansen test is employed to check the validity of the instruments used, while AR (1) and AR (2) are for the serial correlation tests. Hansen test has the null of valid instruments while AR (1) and AR (2) have nulls of the absence of first-order and second-order serial correlation in the residuals, respectively. For AR (1) the null hypothesis should be rejected and the failure to reject the null hypothesis for AR (2) test indicates that the regression model is robust. Apart from Hansen test and serial correlation tests AR(1) and AR(2), the system-GMM also requires: (1) the significance of the lagged dependent variable and (2) the absence of instrument proliferation, where number of instruments must be less than the number of groups. This study conducts the variance inflation factor (VIF) to check for multicollinearity between the independent variables. VIF of each variable should be less than 10 to be free from multicollinearity issue (Baltagi, 2005) – reported in Table 2.

5. Empirical analysis and discussions

Table 1 presents the descriptive statistics of the variables used in the analysis (together with skewness and kurtosis). The sample comprises of 59 non-financial SCFs from the main

164

IES

28,2

Variables	Obs	Mean	Std. Dev	Min	Max	Skewness	Kurtosis	I he impact of
Tobin's Q	1,043	1.0851	0.8989	0.0000	9.6898	0.0000***	0.0000***	firm value
FCD	477	35.4748	84.6637	0.0009	953.4154	0.0000***	0.0000***	iii iii value
MO	1,052	0.0811	0.1384	0.0000	0.8194	0.0000***	0.0000***	
CAPITAL	1,062	0.8386	0.3770	0.0000	1.0000	0.0000***	0.0000***	
RISK	1,054	0.3653	0.2257	0.0731	3.5968	0.0000***	0.0000***	
SIZE	1,044	13.5857	1.7561	6.8690	18.7867	0.0000***	0.8013	165
DIV	1,042	0.1452	0.1036	0.0054	0.7336	0.0000***	0.0000***	
INDUSTRY	1,045	3.1477	0.8378	-0.0700	14.4083	0.0000***	0.0000***	
GROWTH	1,035	0.0947	0.1889	0.0005	3.6880	0.0000***	0.0000***	
LEV	830	0.2783	0.3874	3.4200	4.6432	0.0000***	0.0000***	
DUMMY TIME	1,062	0.3333	0.4716	0.0000	1.0000	0.0000***	0.0000***	Table 1
DUMMY TIME	1,062	0.1111	0.3144	0.0000	1.0000	0.0000***	0.0000***	Summary of
Note(s): *** repr	esents the	significant a	t level $p < 0.0$)1				descriptive statistics

	Tob	oin's Q	F	ROA	F	OE	
Variables	VIF	1/VIF	VIF	1/VIF	VIF	1/VIF	
FCD	1.07	0.9309	1.07	0.9309	1.08	0.9293	
MO	1.19	0.8401	1.19	0.8401	1.20	0.8365	
CAPITAL	1.38	0.7261	1.38	0.7261	1.37	0.7292	
RISK	1.64	0.6106	1.64	0.6106	1.63	0.6134	
SIZE	2.20	0.4537	2.20	0.4537	2.25	0.4437	
DIV	1.24	0.8084	1.24	0.8084	1.23	0.8111	
INDUSTRY	1.53	0.6530	1.53	0.6530	1.55	0.6468	
GROWTH	1.26	0.7942	1.26	0.7942	1.27	0.7876	
LEV	1.50	0.6665	1.50	0.6665	1.53	0.6527	Т
DUMMY TIME	1.40	0.7120	1.40	0.7120	1.40	0.7123	Variance in
DUMMY CRISIS	1.17	0.8578	1.17	0.8578	1.16	0.8627	factor (V
Mean VIF	1.42		1.42		1.42		to

market of Bursa Malaysia. First, the mean for Tobin's Q is 1.0851 (SD 0.8989) implying that the firms are profitable, on average. The mean of FCD is 35.4748 with SD of 84.6637 and the mean for managerial ownership is 8.11% (SD 13.84%) indicating a lower ownership in the sample firms.

Table 2 contains the results of VIF on the independent variables with the mean VIF of 1.42. Higher VIF of more than 10 indicates the presence of multicollinearity (Baltagi, 2005). Based on the results of low VIF as presented in Table 2, thus, this finding suggests the non-existence of potential multicollinearity between the independent variables.

This study presents a non-linear approach estimated through the two-step system-GMM estimator. The results in Table 3 show the coefficients β_1 (FCD) and β_2 (FCD²) are negative (p < 0.05) and positive signs (p < 0.01), respectively and both are statistically significant. This indicates the relationship between FCD and firm value is non-linear *U*-shaped. In addition, several control variables are found to be significant (managerial ownership, industrial diversification, industry effect, investment growth, leverage, time and year crisis) in determining firm value.

Next, for the robustness check of the non-linear *U*-shaped, the SLM test for *U*-shaped is performed and reported in Table 4. The slope of (FCD_{min}) is negative and statistically significant (p < 0.01), whereas the slope of (FCD_{max}) is positive and also significant (p < 0.01). Therefore, based on the SLM test, this confirms the non-linear *U*-shaped relationship between

1E-5 28 2		Tobin's Q	ROA	ROE
20,2	Tobin's $Q(-1)$	0.913*** (31.91)		
	ROA(-1)	(0101)	0.636*** (19.38)	
	ROE(-1)		(1000)	0.490*** (13.66)
	FCD	-0.0227 ** (-2.46)	-0.0041 ** (-2.18)	-0.0022*(-1.85)
	FCD^2	0.0095*** (4.94)	0.0008** (2.16)	0.000964*** (3.61
166	MO	-0.202*** (-10.85)	-0.0025(-1.26)	$-0.0082^{**}(-3.06)$
200	CAPITAL	0.0428 (0.31)	0.0415**** (5.67)	0.119*** (17.88)
	RISK	-0.0033(-0.02)	0.0000 (0.00)	0.0700*** (4.41)
	SIZE	0.0737 (1.33)	-0.0146** (-2.74)	$-0.0116^{**}(-2.61)$
	DIV	-0.294*(-1.84)	-0.0702** (-3.00)	0.190*** (3.91)
	INDUSTRY	-0.186^{***} (-4.72)	$-0.0147^{**}(-2.55)$	-0.0427*** (-5.75)
	GROWTH	-1.786*** (-4.20)	-0.275*** (-7.80)	0.0563 (0.83)
	LEV	-0.315*** (-2.73)	0.0134 (0.68)	-0.00947(-0.44)
	DUMMY_TIME	$-0.253^{***}(-6.60)$	0.0052 (1.60)	-0.0321 *** (-3.47)
	DUMMY_CRISIS	-0.228^{***} (-7.93)	0.0087 (1.59)	0.0219*** (3.92)
	Constant	-0.853(-1.04)	0.249** (3.21)	0.165** (2.75)
	No of observations	324	324	312
	No of instruments	43	45	43
	No of groups	47	47	47
	AR (1)	0.080	0.005	0.051
Table 3	AR (2)	0.504	0.901	0.250
Regression results of	Hansen Test	0.700	0.304	0.699
non-linear models (two-	Threshold point	1.1861(3.27%)	2.4922(12.09%)	1.1611(3.19%)
step system-GMM)	Note(s): *, **, *** deno	ote significant level at $p < 0.1$,	p < 0.05, p < 0.01; t-statistic i	s in bracket

		Tobin's Q	ROA	ROE
	Extreme point (turning point)95% Fieller interval	1.1861 (-6.9813, 6.8600)	2.4922 (-6.9813, 6.8600)	1.1611 (-6.9813, 6.8600)
	Slope at FCDmin Slope at FCDmax Hypothesis test	-0.1561*** (-5.2701) 0.1085*** (4.0115) H0: Inverted U-shaped H1: U-shaped	-0.0156** (-2.3017) 0.0072** (1.7284) H0: Inverted <i>U</i> -shaped H1: <i>U</i> -shaped	-0.0157*** (-3.7604) 0.0109*** (3.0675) H0: Inverted U-shaped H1: U-shaped
Table 4.Sasabuchi-Lind-Mehlum (SLM) test forU-shaped model	SLM test for inverted U-shaped t-value t-value	4.01**	1.73**	3.07***
	Note(s) : ** and *** denote significant level at 5% and 1%; <i>t</i> -statistic in parentheses			

FCD and firm value as depicted in the regression model. Besides, the extreme point (turning point) for Tobin's Q is 1.1861 with 95% Fieller confidence interval (-6.9813, 6.8600).

This study confirms that the relationship between FCD and firm value is non-linear (*U*-shaped) indicating that derivatives can start enhancing firm value up to a certain point. As reported in Table 3 and supported by Figure 1, the threshold point is 1.1861 (3.27%), which means once the derivatives ratio reached beyond the threshold point, the impact of FCD on firm value is improving positively as confirmed by the *U*-shaped curve. In other words, derivatives activities/hedging position cause positive changes in firm value, when the threshold point of Tobin's *Q* is surpassed. This finding is consistent with the hedging theory









that states hedging via derivatives is a value increasing strategy for the firm and mitigates the risk.

In relation to the non-linear U-shaped curve, Adam et al. (2017) in their study on hedging explains that, a U-shaped curve indicates a presence of selective hedging practiced among the managers of the sample US firms. Firms hedge by varying the size and the timing of their derivatives transactions based on managers' market views, a practice known as "selective hedging". In this type of hedge, managers will only be taking a hedging position subject to market timing where managers incorporate their market views into firms' hedging programs. This practice according to them is widely spread in the US and other countries. Stulz (1996) argued that selective hedging could enhance the value of firms that possess an information advantage relative to the market and have the financial strength to withstand the additional risk from market timing. Adam et al. (2017) also found that the selective hedging is most prevalent among firms that are most likely to have private information about future prices; as in the current study, the future movement of foreign currencies. Therefore, the managers of SCFs will only participate in selective hedging if they deemed appropriate to take such positions subject to market timing. This strategy is able to enhance firm value as suggested by Stulz (1996) and explained by the U-shaped curve. The strategies undertaken by the managers therefore will enhance firm value only after hedging position surpassing certain threshold point. The finding of the current study on selective hedging also supports the argument by Huan and Parbonetti (2019) in a non-linear framework where if the use of derivatives is moderate, hedging reduces risk, but aggressive use of derivatives by firms caused risk to increase, hence destructing firm value.

The non-linear relationship found in this study is in line with (Adam and Fernando, 2006; Adam, 2009; Mnasri *et al.*, 2017; Huan and Parbonetti, 2019) and is suggesting the following reasons; (1) when firm capital expenditure and cash flow are becoming more sensitive due to increasing business risk, firms are motivate to use hedging instruments to achieve value maximizing (2) the non-linear relationship occurred due to the different degree of derivatives usage and risk and (3) firms practice optimal hedge to maintain the upside potential of firm value and to ensure sufficient internal financing for future investment expenditure. This finding therefore, is consistent with the hedging theory, H1 hence is supported.

The U-shaped relationship profiles for the regression (Tobin's Q, ROA and ROE) are illustrated in Figure 1. The solid line is positioned within a confidence interval of 95% as shown by the dashed line, which supports the U-shaped relationship between FCD and firm value.

5.1 Robustness test

This study performs a robustness test to check the consistency of the result (Tobin's Q) with alternative measurements of firm value (ROA and ROE). The robustness tests are to reinforce the reported results that the use of derivatives among Malaysian SCFs may affect firm value and also there exists a non-linear relationship between the FCD and firm value. Table 3 reports the results for alternative measurements (ROA and ROE). The non-linear results show that the FCD and FCD² (ROA and ROE) are negatively and positively significant, indicating a *U*-shaped relationship, consistent with Tobin's *Q*. Table 4 reports the results of the SLM test for *U*-shaped of ROA and ROE and consistent with the results of Tobin's *Q*.

6. Conclusion, limitation and future research

This study examines the relationship between FCD and firm value based on a non-linear model, controlling for managerial ownership, access to financial market, firm size, leverage, firm risk, industrial diversification, industry effect, investment growth, time and crisis year.

168

IES

28,2

The results of the study are robust based on first, the various measurements of firm value employed (Tobin's *Q*, ROA and ROE), second, the SLM test for *U*-shaped relationship and third, the use of system-GMM estimator to control for endogeneity. This study concludes that derivatives significantly contribute to firm value of SCFs and there exist a non-linear *U*-shaped relationship between FCD and firm value. The selective hedging strategy undertaken by the SCFs therefore is effective and value enhancing in contrast to aggressive hedging which caused value destruction.

Despite the study period of 18 years, the current study however is not exhaustive in the sense that its sample is limited to only 59 SCFs engaging in derivatives during the study period. Due to this constraint, it may cause limitation on the generalization of the results and the representation of the whole population. The result shows managerial ownership is statistically significant with firm value for firms that engaged in derivatives for risk management. Hence, for future research, researchers may investigate further the role of managerial ownership on hedging decision and its implication on firm value. Future research may also examine firms' sample into different categories and characteristics such as size, profit, etc. and whether such firm characteristics matter in firm hedging and firm value. Besides, this study only focuses on SCFs. This context of analysis can be extended to both categories of firms (SCFs and non-SCFs) in the Malaysian context. This study also suggests future research may be extended to other countries around the world that offer both Sharī'ah and non-Sharī'ah compliant investments.

Overall, this study has important research implications. First, the finding of this study confirms the hedging theory that hedging is value enhancing. Most importantly hedging efficiency also matters in ensuring that SCFs fully benefit from their risk management strategies. This study provides evidence that SCFs perform optimal hedging in managing their foreign currency (FC) risk indicating the ability of the managers of the firms to fully hedge the FC risk. This is done by entering into sufficient FCD contracts making the hedging position not to be under-hedged or over-hedged. Having optimal hedge also means that SCFs are fully protected from FC risk during the period of currency volatility until the FCD contract is expired. This somehow reflects the skill of the managers of SCFs in dealing with the FC risk using FCD. The results of this study therefore are in line with the hedging theory and the hedging theory from the Islamic perspective.

Second, this study found evidence of selective hedging practiced by the SCFs based on the significant *U*-shaped relationship between FCD and firm value. Selective hedging means the managers of SCFs will only participate in hedging if they deemed appropriate to take such hedging positions subject to market timing. In this regard, the hedging strategy is a moderate strategy instead of an aggressive one. Undertaking a moderate hedging strategy is crucial as past literature documents that aggressive use of derivatives by firms caused risk to increase, hence destructing firm value.

Having explained the research implications (optimal hedging and selective hedging), in terms of risk management processes on hedging for the SCFs, this study recommends that, first; the SCFs have to ensure that the hedging positions undertaken by the firms is optimal. This is because when hedging is optimal, the SCFs are fully isolated from FC risk, unlike being under-hedged or over-hedged hence, value maximization. An appropriate hedging mechanism therefore needs to be implemented by the SCFs to ensure the hedging exposure is optimal to fully protect its underlying (foreign currency). Second, the SCFs have to be selective in entering the FCD contracts to hedge subject to market timing as to avoid aggressive hedging. This demonstrates the importance of the managers to have the ability to correctly predict the volatility of FC against the local currency (Ringgit Malaysia-RM). This is imperative as the managers may not need to hedge if the foreign currency volatility against RM is not significant. Doing so will only lead to the additional hedging cost to the firm hence negatively affecting firm value.

The impact of hedging on firm value

IES 28,2

170

Moving forward, despite the effective hedging implemented by the SCFs in managing its FC risk as evidenced in this study, an important issue that needs to be highlighted in relation to hedging within the context of Islamic finance is that, there is no disclosure in the annual reports whether the hedging instruments used by the SCFs are Sharī'ah compliant or otherwise. This is due to no requirement or accounting standard imposed on firms in Malaysia to disclose whether the hedging instruments are Sharī ah compliant. Abdul-Rahim et al. (2019) acknowledged the fact that most of Malaysian firms still adopt conventional hedging instruments mainly because of more documentation needed in dealing with Islamic hedging instruments. They added further that documentation related to Islamic hedging instruments are also cumbersome and need to be prepared before and after the transactions are completed. The virtue of the SCFs should lie on how they conduct their business activities. It is widely known that the Sharī ah principles do not permit conventional hedging instruments. This is because of the presence of *ribā al-nasī'ah* resulting from the delay in the delivery as well as the differences existed in the actual foreign exchange value being exchanged. Therefore, the managements of the SCFs are responsible to the stakeholders to disclose the FCD instruments they are using. In relation to this, for policy recommendation, the regulator may consider imposing SCFs to report Islamic hedging instruments either in the form of *wa'd* or *tawarruq* in their annual reports to represent their hedging exposure in such instruments.

This study also highlights the importance of quality reporting on derivatives usage by firms and the information symmetry in line with the required accounting standard on derivatives. Without the quality reporting, research on derivatives hedging will never be possible.

References

- Abdul Bahri, E.N., Shaari Md Nor, A.H. and Mohd Nor, N.H. (2018), "Nonlinear relationship between financial development and economic growth: evidence from post global financial crisis panel data", *Jurnal Ekonomi Malaysia*, Vol. 52 No. 1, pp. 15-30.
- Abdul-Rahim, R., Wahab, A.A. and Yusoff, N.A. (2019), "Impact of shariah-compliant status on firms' decision to practice forex hedging", *Journal of Islamic Accounting and Business Research*, Vol. 10 No. 5, pp. 756-769.
- Abdullah, A. and Ismail, K.N.I. (2017), "Company-specific characteristics and the choice of hedge accounting for derivatives reporting: Malaysian case", *International Journal of Accounting*, *Auditing and Performance Evaluation*, Vol. 13 No. 3, pp. 280-292.
- Adam, T. (2009), "Capital expenditures, financial constraints, and the use of options", *Journal of Financial Economics*, Vol. 92 No. 2, pp. 238-251.
- Adam, T.R. and Fernando, C.S. (2006), "Hedging, speculation, and shareholder value", *Journal of Financial Economics*, Vol. 81 No. 1, pp. 283-309.
- Adam, T.R., Fernando, C.S. and Salas, J.M. (2017), "Why do firms engage in selective hedging? Evidence from the gold mining industry", *Journal of Banking and Finance*, Vol. 77 No. 1, pp. 269-282.
- Allayannis, G. and Ofek, E. (2001), "Exchange rate exposure, hedging, and the use of foreign currency derivatives", *Journal of International Money and Finance*, Vol. 20 No. 2, pp. 273-296.
- Allayannis, G. and Weston, J.P. (2001), "The use of foreign currency derivatives and firm market value", *The Review of Financial Studies*, Vol. 14 No. 1, pp. 243-276.
- Allayannis, G., Lel, U. and Miller, D.P. (2011), "The use of foreign currency derivatives, corporate governance, and firm value around the world", *Journal of International Economics*, Vol. 87 No. 1, pp. 65-79.

Ameer, R. (2009), "Value-relevance of foreign-exchange and interest-rate derivatives disclosure", The Journal of Risk Finance, Vol. 10 No. 1, pp. 78-90.

- Ameer, R. (2010), "Determinants of corporate hedging practices in Malaysia", International Business Research, Vol. 3 No. 2, pp. 120-130.
- Ameer, R., Isa, R.M. and Abdullah, A. (2011), "A survey on the usage of derivatives and their effect on cost of equity capital", *The Journal of Derivatives*, Vol. 19 Fall 2011, pp. 56-71.
- Antônio, R.M., Lima, F.G., dos Santos, R.B. and Rathke, A.A.T. (2019), "Use of derivatives and analysts' forecasts: new evidence from non-financial Brazilian companies", *Australian Accounting Review*, Vol. 29 No. 1, pp. 220-234.
- Arcand, J.L., Berkes, E. and Panizza, U. (2015), "Too much finance?", *Journal of Economic Growth*, Vol. 20 No. 2, pp. 105-148.
- Arellano, M. and Bover, O. (1995), "Another look at the instrumental variable estimation of errorcomponents models", *Journal of Econometrics*, Vol. 68 No. 1, pp. 29-51.
- Arif, N.A.M., Muda, R., Alam, M.M. and Mohamad, S. (2019), "The impact of interest rate changes on the Islamic foreign exchange forward in the Malaysian derivative market", *Jurnal Pengurusan*, Vol. 56 No. 1, pp. 26-37.
- Ariffin, N.M. (2012), "Liquidity risk management and financial performance in Malaysia: empirical evidence from Islamic banks", Aceb International Journal of Social Sciences, Vol. 1 No. 2, pp. 77-84.
- Ayturk, Y., Gurbuz, A.O. and Yanik, S. (2016), "Corporate derivatives use and firm value: evidence from Turkey", *Borsa Istanbul Review*, Vol. 16 No. 2, pp. 108-120.
- Baber, H. (2018), "How crisis-proof is Islamic finance? A comparative study of Islamic finance and conventional finance during and post financial crisis", *Qualitative Research in Financial Markets*, Vol. 10 No. 4, pp. 415-426.
- Bae, S.C. and Kim, H.S. (2016), "Foreign currency debt financing, firm value, and risk: evidence from Korea surrounding the global financial crisis", *Journal of Financial Studies*, Vol. 45 No. 1, pp. 124-152.
- Bae, S.C., Kim, H.S. and Kwon, T.H. (2017), "Currency derivatives for hedging: new evidence on determinants, firm risk, and performance", *The Journal of Futures Market*, Vol. 22 No. 1, pp. 1-21.
- Bae, S.C., Ho, T. and Soo, R. (2018), "Managing exchange rate exposure with hedging activities: new approach and evidence", *International Review of Economics and Finance*, Vol. 53 October, pp. 133-150.
- Baltagi, B.H. (2005), Econometrics Analysis of Data, 3rd ed., John Wiley and Son, West Sussex.
- Barton, J. (2001), "Does the use of financial derivatives affect earnings management decisions?", Accounting Review, Vol. 76 No. 1, pp. 1-26.
- Bartram, S.M. (2019), "Corporate hedging and speculation with derivatives", *Journal of Corporate Finance*, Vol. 57 No. 1, pp. 9-34.
- Bartram, S.M., Brown, G.W. and Conrad, J. (2011), "The effects of derivatives on firm risk and value", *Journal of Financial and Quantitative Analysis*, Vol. 46 No. 4, pp. 967-999.
- Belghitar, Y., Clark, E. and Mefteh, S. (2013), "Foreign currency derivative use and shareholder value", International Review of Financial Analysis, Vol. 29 No. 1, pp. 283-293.
- Berger, P.G. and Ofek, E. (1995), "Diversification's effect on firm value", Journal of Financial Economics, Vol. 37 No. 1, pp. 39-65.
- Bhagawan, M.P. and Lukose, P.J. (2017), "The determinants of currency derivatives usage among Indian non-financial firms an empirical study", *Studies in Economics and Finance*, Vol. 34 No. 3, pp. 363-382.
- Blundell, R. and Bond, S. (1998), "Initial conditions and moment restrictions in dynamic panel data models", *Journal of Econometrics*, Vol. 87 No. 1, pp. 115-143.

The impact of hedging on firm value

IES 28.2	Bouslama, G. and Lahrichi, Y. (2017), "Uncertainty and risk management from Islamic perspective", <i>Research in International Business and Finance</i> , Vol. 39 No. 1, pp. 718-726.				
20,2	Bouwman, C.H.S. (2014), "Managerial optimism and earnings smoothing", <i>Journal of Banking and Finance</i> , Vol. 41 No. 1, pp. 283-303.				
	Choi, J.J., Mao, C.X. and Upadhyay, A.D. (2013), "Corporate risk management under information asymmetry", <i>Journal of Business Finance and Accounting</i> , Vol. 40 February, pp. 239-271.				
172	Chong, L.L., Chang, X.J. and Tan, S.H. (2014), "Determinants of corporate foreign exchange risk hedging", <i>Managerial Finance</i> , Vol. 40 No. 2, pp. 176-188.				
	Coles, J.L., Lemmon, M.L. and Felix Meschke, J. (2012), "Structural models and endogeneity in corporate finance: the link between managerial ownership and corporate performance", <i>Journal</i> of Financial Economics, Vol. 103 No. 1, pp. 149-168.				
	Dewally, M. and Shao, Y. (2013), "Financial derivatives, opacity, and crash risk: evidence from large US banks", <i>Journal of Financial Stability</i> , Vol. 9 No. 4, pp. 565-577.				
	Dodd, R. (2009), "Exotic derivatives losses in emerging markets: questions of suitability, concerns for stability", available at: http://Financialpolicy.Org/Kiko.Pdf, http://topwonks.org/wp-content/ uploads/2012/05/RDodd-Kiko-WP-2009.pdf.				
	Fahlenbrach, R. and Stulz, R.M. (2009), "Managerial ownership dynamics and firm value", Journal of Financial Economics, Vol. 92 No. 3, pp. 342-361.				
	Godil, D.I., Sarwat, S., Sharif, A. and Jermsittiparsert, K. (2020), "How oil prices, gold prices, uncertainty and risk impact Islamic and conventional stocks? Empirical evidence from QARDL technique", <i>Resources Policy</i> , Vol. 66 April, pp. 1-9.				
	Haron, R. (2018), "Firm level, ownership concentration and industry level determinants of capital structure in an emerging market: Indonesia evidence", <i>Asian Academy of Management Journal of Accounting and Finance</i> , Vol. 14 No. 1, pp. 127-151.				
	Haron, R., Othman, A.H., Nomran, N.M. and Husin, M.M. (2020), "Corporate governance and firm performance in an emerging market: the case of Malaysian firms", in Farinha, L., Cruz, A.B. and Sebastião, J.R. (Eds), <i>Handbook of Research on Accounting and Financial Studies</i> , IGI Global, pp. 208-226.				
	Huan, X. and Parbonetti, A. (2019), "Financial derivatives and bank risk: evidence from eighteen developed markets", <i>Accounting and Business Research</i> , Vol. 49 No. 7, pp. 847-874.				
	IFCI (2019), available at: http://www.gifr.net/publications/gifr2019/ifci.pdf.				
	Kathir, I. (1988), Tafsir Al-Qur'an an Al-'Azim, Dar Al-Hadith, Cairo.				
	Khan, T. (2000), "Islamic quasi equity (debt) instruments and the challenges of balance sheet hedging: an exploratory analysis", <i>Islamic Economic Studies</i> , Vol. 7 Nos 1&2, pp. 1-31.				
	Lau, C.K. (2016), "How corporate derivatives use impact firm performance?", Pacific-Basin Finance Journal, Vol. 40 No. 1, pp. 102-114.				
	Law, S.H., Kutan, A.M. and Naseem, N.A.M. (2018), "The role of institutions in finance curse: evidence from international data", <i>Journal of Comparative Economics</i> , Vol. 46 No. 1, pp. 174-191.				
	Ledhem, M. and Mekidiche, M. (2020), "Economic growth and financial performance of Islamic banks: a CAMELS approach", <i>Islamic Economic Studies</i> , Vol. 28 No. 1, pp. 47-62.				
	Lind, J.T. and Mehlum, H. (2010), "With or without U? The appropriate test for a U-shaped relationship", Oxford Bulletin of Economics and Statistics, Vol. 72 No. 1, pp. 109-118.				
	Magee, S. (2013), "Foreign currency hedging and firm", Advanced in Financial Risk Management, Palgrave Macmillan, pp. 57-80.				
	Mitchell, R. (2010), "Rebuilding trust: next steps for risk management in financial services", available at: http://www.eiu.com (accessed 10 January 2019).				
	Mnasri, M., Dionne, G. and Gueyie, J.P. (2017), "The use of nonlinear hedging strategies by US oil producers: motivations and implications", <i>Energy Economics</i> , Vol. 63 No. 1, pp. 348-364.				
Mohamad, S., Othman, J., Roslin, R. and Lehner, O.M. (2014), "The use of Islamic hedging instruments as non-speculative risk management tools", *Venture Capital*, Vol. 16 No. 3, pp. 207-226.

- Nafis, A. and Shadique, M.R. (2016), "Shariah-compliant equities: empirical evaluation of performance in the European market during credit crunch", in Harrison, T. and Ibrahim, E. (Eds), *Islamic Finance*, Palgrave Macmillan, Cham, pp. 535-553.
- Nguyen, H. and Faff, R. (2010a), "Are firms hedging or speculating? The relationship between financial derivatives and firm risk", *Applied Financial Economics*, Vol. 20 No. 10, pp. 827-843.
- Nguyen, H. and Faff, R. (2010b), "Does the type of derivative instrument used by companies impact firm value?", *Applied Economics Letters*, Vol. 17 No. 7, pp. 681-683.
- Nomran, N.M. and Haron, R. (2020), "Relevance of Shari'ah governance in driving performance of Islamic banks during the financial crisis: international evidence", in Haron, R., Md Husin, M. and Murg, M. (Eds), *Banking and Finance*, IntechOpen, London, pp. 220-239.
- Ramli, N.E. and Haron, R. (2017), "Debt determinants of Sharī'ah approved firms: empirical evidence from Malaysia", *Journal of Islamic Finance*, (Special Issue), Vol. 6 No. 1, pp. 188-204.
- Sakti, M.R.P., Syahid, A., Tareq, M.A. and Mahdzir, A.M. (2016), "Sharī'ah issues, challenges and prospects for Islamic derivative: a qualitative study", *Qualitative Research in Financial Markets*, Vol. 8 No. 2, pp. 179-198.
- Sasabuchi, S. (1980), "A test of a multivariate normal mean with composite hypotheses determined by linear inequalities", *Biometrika*, Vol. 67 No. 2, pp. 429-439.
- Seng, C.K. and Thaker, H.M.T. (2018), "Determinants of corporate hedging practices: Malaysian evidence", *Report on Economics and Finance*, Vol. 4 No. 4, pp. 199-220.
- Siddika, A. and Haron, R. (2020), "Capital regulation and ownership structure on bank risk", *Journal of Financial Regulation and Compliance*, Vol. 28 No. 1, pp. 39-56.
- Stulz, R.M. (1984), "Optimal hedging policies", Journal of Financial and Quantitative Analysis, Vol. 19 No. 2, pp. 127-140.
- Stulz, R.M. (1996), "Rethinking risk management", Journal of Applied Corporate Finance, Vol. 9 No. 1, pp. 8-24.
- Tanha, H. and Dempsey, M. (2017), "Derivatives usage in emerging markets following the GFC: evidence from the GCC countries", *Emerging Markets Finance and Trade*, Vol. 53 No. 1, pp. 170-179.
- Wahab, A., Abdul Rahim, R. and Janor, H. (2020), "Impact of foreign exposure and Shariah compliant status on Malaysian firms' hedging practice", *Jurnal Pengurusan*, Vol. 58 No. 1, pp. 1-13.
- Zeidan, R. and Rodrigues, B. (2013), "The failure of risk management for nonfinancial companies in the context of the financial crisis: lessons from Aracruz Celulose and hedging with derivatives", *Applied Financial Economics*, Vol. 23 No. 3, pp. 241-250.

Further reading

Ibrahim, M.H. and Law, S.H. (2014), "Social capital and CO₂ emission - output relations: a panel analysis", *Renewable and Sustainable Energy Reviews*, Vol. 29 December, pp. 528-534.

Corresponding author

Razali Haron can be contacted at: hrazali@iium.edu.my

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm Or contact us for further details: permissions@emeraldinsight.com The impact of hedging on firm value The current issue and full text archive of this journal is available on Emerald Insight at: https://www.emerald.com/insight/1319-1616.htm

IES 28,2

174

Received 1 November 2020 Revised 30 December 2020 26 February 2021 Accepted 22 April 2021

Responses of Islamic banking variables to monetary policy shocks in Indonesia

Aula Ahmad Hafidh

Faculty of Economics, State University of Yogyakarta, Yogyakarta, Indonesia

Abstract

Purpose – This paper investigates the structural model of vector autoregression (SVAR) of the interdependent relationship of inflation, monetary policy and Islamic banking variables (RDEP, RFIN, DEP, FIN) in Indonesia. By using monthly data for the period 2001M01-2019M12, the impulse response function (IRF), forecasting error decomposition variation (FEDV) is used to track the impact of Sharīʿah variables on inflation (prices).

Design/methodology/approach – This research uses quantitative approach with SVAR model to reveal the problem.

Findings – The empirical results of SVAR, the IRF show that policy shocks have a negative impact on all variables in Islamic banking except the equivalent deposit interest rate (RDEP). The impact of both conventional (7DRR) and Sharī'ah (SBIS) policies has a similar pattern. While the transmission of Sharī'ah monetary variables as a policy operational target in influencing inflation is positive. In addition, the FEDV clearly revealed that the variation in the Sharī'ah financial sector was relatively large in monetary policy shocks and their role in influencing prices.

Originality/value – The empirical results of SVAR, the IRF show that policy shocks have a negative impact on all variables in Islamic banking except the equivalent deposit interest rate 'RDEP'. The impact of both conventional "7DRR" and Shari'ah "SBIS" policies has a similar pattern. While the transmission of Shari'ah monetary variables as a policy operational target in influencing inflation is positive. In addition, the FEDV clearly revealed that the variation in the Shari'ah financial sector was relatively large in monetary policy shocks and their role in influencing prices.

Keywords Monetary policy transmission mechanism, Islamic banking, Structural VAR

Paper type Research paper

Introduction

A monetary policy transmission mechanism describes how the monetary policy adopted by the central bank influences various economic and financial activities so that it can reach the final goal set (Bernanke and Gertler, 1995). Monetarists think money is most important in influencing output, whereas Keynesian contemplate that there are other important variables that affect output, such as government spending.

In the Indonesian context, the question of how the monetary policy transmission mechanism operates is also interesting to study. In accordance with the Law of the Republic of Indonesia Number 23 of 1999 which has been amended by the Law of the Republic of Indonesia Number 3 of 2004, the objective of Bank Indonesia is to achieve and maintain stability in the Rupiah, namely price stability (inflation) and the exchange rate. In reality, the transmission mechanism of monetary policy is a complex process in which interaction of both the financial and real sectors are involved.



Islamic Economic Studies Vol. 28 No. 2, 2021 pp. 174-190 Emerald Publishing Limited e-ISSN: 2411-3395 p-ISSN: 1319-1616 DOI 10.1108/IES-11-2020-0049 © Aula Ahmad Hafidh. Published in *Islamic Economic Studies*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

JEL Classification — C32, E44, E58 KAUJIE Classification — Q52, Q53

Since the issuance of the Banking Act in 1998, Indonesia has de jure implemented a dual banking system, when conventional banks with an interest rate system and an Islamic bank with a profit and loss sharing system or interest-free system can operate side by side in Indonesia. In 2018, the condition of Sharīʿah banking resilience has become stronger. This is reflected in the increase in CAR ratio of Sharīʿah Commercial Banks by 248 bps (yoy) to 20.39%. Meanwhile, the Sharīʿah banking intermediary function also improved. Sharīʿah banking assets still showed positive growth, despite slowing compared to the previous year. In the last three years, the growth of Sharīʿah banking assets has been maintained in double digits, with the asset share reaching 5.96% of the national banks, an increase compared to the previous year which was 5.78%. Islamic Commercial Bank (ICB), Islamic Business Unit (IBU) and Islamic Rural Bank (IRB) showed positive growth. Now, 29 of the 34 Islamic banks (14 ICB and 20 IBU) have a Conventional Commercial Bank parent. Despite this growth, the share and capitalization of Islamic banking and financial assets and markets is still small. Although in terms of growth and acceptance of the community it is very good and increasing, when compared with conventional banks it is still very far away (Syafrida and Aminah, 2015).

Research in the realm of monetary policy has been conducted using Indonesian sample. Ascarva (2012, 2014), Herianingrum and Svapriatama (2016), Setiawan and Karsinah (2016), Widodo (2017) and Fikri (2018) investigated the transmission process through both conventional and Islamic banking. Zulkhibri and Sukmana (2017) and Octaviani and Arif (2018) examined the transmission process through Islamic banking, specifically by passing through Islamic banks financing. Zulkhibri and Sukmana (2017) employed panel regression analysis. In another research, Ozkan and Erden (2015) conducted a comprehensive study that combined dynamic conditional correlation and generalized autoregressive conditional heteroskedasticity (DCC-GARCH) and panel threshold regression analyses to assess timevarying exchange rate pass-through and macroeconomic determinants of the degree. This study covered a sample of 88 countries composed of 19 less-developed, 41 developing and 28 advanced countries and found low exchange rate pass-through (ERPT) over the past 30 years, and that it is declining since the mid of the 1990s. Further, the study evidenced a positive relationship between ERPT and average inflation but the negative response of inflation rate volatility to exchange rate volatility, the degree of openness and the output gap. Helmy et al. (2018) adopted SVAR model, impulse response function (IRF) and variance decomposition (VD) to evidence pass-through effects in Egypt. In Malaysian context, Akhatova, Zainal and Ibrahim adopting structural vector autoregression (SVAR) specification, validated the significant responses of both conventional bank credit and Islamic bank financing to monetary policy shocks even shocks tend to be different. Majid and Hasin using an autoregressive distributed lag (ARDL) bound testing approach showed that Islamic financing channel for monetary transmission exists in Malaysia. Islamic financing is unequally distributed to economic sectors in response to monetary policy shock. Furthermore, the findings also reflect that Islamic banking as operating in a dual banking system is not spared from interest rate and monetary conditions of the country.

Through a comprehensive review of the empirical literature, it is found that several known scholars have confirmed MPTM through both the bank lending and the balance sheet channels for different economies (Bernanke, 1993; Bernanke *et al.*, 1995; Cecchetti, 1999; Hamza and Saadaoui, 2018; Kashyap and Stein, 1994). However, these researchers have also reported the effect of monetary policy shocks on banks' lending ability that differs considerably across bank size and banks liquidity positions. Similarly, Anwar and Ngyend (2018), Auclert (2017), Aysun and Hepp (2013), Erdogdu (2017), Evans *et al.* (2015) and Jermann (2019) have found the significance of Central Banks in monetary policy transmission mechanism.

What is so special about Islamic banks is that financial stability is enhanced by the existence of risk sharing activities (Yungucu and Saiti, 2016; Miah and Uddin, 2017).

Monetary policy shocks in Indonesia

Whenever there are shocks to the financial system, Islamic banks can absorb these shocks and transmit them. Shocks will mostly affect the assets-side of bank's balance sheet. However, due to their risk sharing nature, these shocks will be transmitted to the liabilities side. This capability will render Islamic banks capable of withstanding the uncertainty in the economy (Rashid *et al.*, 2017).

This study will try to identify the process of monetary transmission through Sharīʿah macro monetary variables then how the Islamic monetary variables play a role in the ultimate goal of monetary policy, namely price stability which is proxied by inflation. The problem is how the process carried out in the transmission (black box) affects the real sector or inflation target. In the process what variables are influential and what are their role and lags of time (operator lag). The present paper differs from the earlier studies as it uses time-series econometrics, i.e. SVAR.

Theoretical and empirical literature

The mechanism of monetary policy transmission is an intricate phenomenon, because transmission to the macro-economy takes place through multiple channels. The channel categories identified in the literature include the interest rate channel, exchange rate channel, credit channel and asset price channel (Cecchetti, 1999; Taylor, 1995). The impact of each channel is determined by country-specific factors such as economic structure, statutory guidelines, market formation and financial con- figurations. The key element for an efficient monetary policy is identification of the relative significance of these channels related to a specific country.

In an Islamic economy, the banking sector does not recognize interest rate instruments. The Islamic financial system implements profit-loss sharing (PLS) based transaction and trend based transactions. The distribution of the proportion of profits is based on business activities (investment) and the provision of funds to the real sector. This means that the Islamic monetary system (monetary policy) has a dependency on the real sector. Nevertheless, there are no specific Islamic principles discussing the monetary transmission mechanism regarding credit and financing channels. The central bank uses monetary policy in order to encourage economic growth by maintaining a smooth circulation of money in the medium and long term, within the framework of stable prices and other socioeconomic targets (Chapra, 2000).

Previous research on the mechanism of monetary transmission, especially bank lending channels, has been carried out by Ascarya (2012), Wulandari (2012), Yarasevika et al. (2015) and Amaluddin (2007) economic growth in Indonesia. Other studies such as Agha et al. (2005), Simpasa et al. (2015), Montes and Monteiro (2014) and Sanfilippo-Azofra et al. (2017), emphasize credit channel. They state that the credit channel is a very effective monetary transmission mechanism that affects economic growth in 33 developing countries. However, research studies on the mechanism of Islamic monetary transmission, especially the new bank financing channel are recent and still very limited. Studies on bank financing channels including those by Amaluddin (2007), Ascarya (2012) and Hamza and Saadaoui (2018) found that although the influence of the Islamic monetary system is still relatively small compared to the conventional system in transmitting monetary policy to the real sector, the Islamic system can reduce the adverse impact of interest rates, so it will not cause inflation and increase economic growth. Ascarya (2012) uses the methods of VAR, ECM and ARDL and argues that the conventional systems provide the expected results, except that the increase in interest rate (rSBI) will increase inflation. Beik and Arsyianti (2013) describe the Sharī'ah monetary transmission mechanism that has been practiced in Indonesia for real output growth and inflation. The result is that all Sharī ah variables have a significant impact on the growth of the real sector; there are no variables that affect inflation. Except that the SBIS instrument is not able to encourage economic growth and is only used as an instrument to

176

IES

28,2

absorb funds that are not allocated to the real sector. The Islamic system mostly provides the expected results similar to conventional systems. The dual system still indicates some inconclusive results.

A stream of literature has revealed the role of Islamic banking in the monetary transmission process in the Islamic world (Aysan et al., 2018; Majid and Hasin, 2014; Sukmana and Kaseem, 2014; Yungucu and Saiti, 2016). The earlier notable study by Agha et al. (2005) explained that along with the traditional exchange rate channel, the banking channel is also a significant source of monetary transmission in Pakistan. Similar research by Mohsin (2011) determined the impact of monetary policy on lending and deposit rates in Pakistan. Janjua et al. (2014) found a negative relationship between monetary policy and bank loan supply. In addition, they showed that contracting monetary policy is adversely associated with smaller banks as compared with larger banks. The study will add new insights to the little research that exists on the subject and could also be generalized to other similar growing Islamic banking markets around the globe.

Methods

There are still only few studies in small-open economies which examined the effect of the monetary policy shocks by using an open SVAR approach. For example, some SVAR studies of a small-open economy include Cushman and Zha (1997a, b), Brischetto and Voss (1999), Dungey and Pagan (2000), Parrado (2001) and Buckle et al. (2007). Most of the studies have used block exogeneity restrictions in modeling the international economic linkages to the small-open economy. The present study uses the SVAR method as an extension of vector autoregression (VAR). In the VAR method a theoretical restriction is not made based on economic theory that is relevant to the variables used in the analysis, whereas in SVAR a restriction is made based on a strong theoretical relationship to the scheme in the form of the variables used in the VAR system. The fundamental difference between the VAR and SVAR models lies in the emphasis of restriction. That is, the critical phase of the SVAR model lies in the identification of elements in the matrix (see Table 1).

The VAR (1) and SVAR (2) models are denoted as follows:

$$Y_t = A_1 y_t + A_2 y_{t-1} + \ldots + A_p y_{p-2} + D + v_t$$
(1)

$$A_0 y_1 = c_0 + A_1 y_{t-1} + A_2 y_{t-2} + \ldots + A_p y_{p-2} + D + v_t$$
⁽²⁾

where:

 y_t : $(n \times 1)$ endogenous variable vector representation.

Notation	Definition of variables	Explanation	
EFFR	Effective Federal Funds Rate	The Fed's interest rate as a proxy for the world interest rate	
7DRR	BI rate/7 days repo rate	Official interest rate for 3 months	
SBIS	Outstanding placement on Shari ah SBI	Outstanding placement on Sharīʿah SBI	
RDEP	Equivalent rate of return of Sharīʿah deposits	Interest rates 1-month deposits	
RFIN	Equivalent rate of return Sharīʿah financing	Average level of profit sharing ratio for banks	
DEP	Total Shari ah banking deposits	Total deposits successfully collected Islamic banks	
FIN	Financing	Total financing provided by Islamic banks	Table 1.
Р	Inflation	Monthly nominal inflation rate	Definition of variables

Monetary policy shocks in Indonesia

IES 28,2

178

 $c_0: (n \times 1)$ representation of constant vector.

 A_i : $(n \times n)$ matrix (i = 0, ..., p) of structural parameters,

 $D: (n \times 1)$ vector of exogenous variables and.

 v_t : $(n \times 1)$ structural innovation, assumed to be orthogonal and not correlated.

The basic specification model of VAR that will be used is a dynamic model, reduced form VAR namely:

$$Y_t = D(L)Y_{t-1} + u_t (3)$$

where:

 Y_t : vector endogenous variable.

D(L): autoregressive lag polynomial.

u_t: vector reduced form innovations.

Reduced form innovations can be an instrument that describes the movement shock of variables in VAR with certain restrictions according to economic theory so that the SVAR model is produced. In accordance with the standard literature in SVAR, the correlation between reduced form innovations and structural shocks is represented in the following equation known as the AB model:

$$A_{ut} = B_{vt} \tag{4}$$

A and B are $n \times n$ matrices that explain the instant relationship between variables and the linear relationship between reduced forms innovations with structural shocks. These structural shocks are assumed to be independent and are identically distributed so that they do not contain zero cross correlation. The VAR structural form can be generated by multiplying Eqn (1) with A and using the relationship in Eqn (2) so that it becomes the following equation:

$$AY_{t} = AD(L)Y_{t-1} + A_{ut} = AD(L)Y_{t-1} + B_{vt}$$
(5)

Eqn (5) can be solved to find X_t so as to produce the SVAR specification as follows:

$$Y_t [ID(L)L]^{-1} A^{-1} B_{vt}$$
(6)

The SVAR equation for the above model can be summarized according to Zivot (2000) into the following equation:

$$B_{vt} = \gamma_0 + \Gamma_i y_{t-1} + e_t \tag{7}$$

The main purpose of SVAR estimation is to obtain a non-recursive orthogonalization error term for the analysis of impulse response, while the alternative recursive orthogonalization from Cholesky requires including sufficient restrictions to identify the components orthogonal error term. *B* is an 8 × 8 matrix containing structural parameters of endogenous variables in this paper namely EFFR*, 7DRR, SBIS, RDEP, RFIN, DEP, FIN and *P*, *y*_t is an endogenous variable vector at *k* dimensions at time *t*, γ_0 is an intercept, Y_{t-1} is a vector of endogenous inaction variables at *k* dimension, *e*_t is a structural innovation vector *k* dimension, where ~ $(0, \sum e)$, γ is a constant in the vector, *k*- dimensional Γ 1 is a matrix of polynomials (finite order matrix) with a lag of one operator at *k* \times a structural coefficient *k*.

The relationship between reduced form and structural model can be stated as below:

$$\sum = (B_0^{-1})D(B_0^{-1})'$$
(8) policy shocks in Indonesia

Exact identification requires parameters in B_0 and D, totaling $2k^2 - k$, which can only be obtained from the reduced form equation. Because Σ has a parameter k(k + 1)/2, we need $2k^2 - k(k + 1)/2$ restrictions on B_0 and D. That is the standard in the SVAR literature for D its shape diagonal, wearing a restriction k(k - 1), also restriction k(k - 1)/2 on the matrix B_0 . For example the matrix B_0 lower triangular, called standard recursive or Wold causal ordering is often used in SVAR studies.

SVAR model, restriction and identification

Based on the relationship between variables as formulated next, an analysis of influence and the SVAR basic model of the transmission mechanism of Sharīʿah monetary policy in Indonesia will use 8 main variables. That is, the external economy (for example, the United States) is not affected by fluctuations in the Indonesian economy both contemporary and lagged. So the basic model SVAR monetary economy of Sharīʿah Indonesia is represented by a vector X_i :

$$X_t = (\text{EFFR*}, 7\text{DRR}, \text{RDEP}, \text{RFIN}, \text{DEP}, \text{FIN}, P)$$

The main purpose of the use of models SVAR is to obtain non-recursive orthogonal on the error term for analysis of impulse the response. Therefore the SVAR model includes a number of restrictions to identify structural or orthogonal components of the error term. For this reason, k(k-1)/2 must be included for short-term restrictions (contemporaneous restrictions/*K*-models).

Recursive relationship notation is not sufficient to identify the relationship simultaneous contemporaneous between policy instruments and Sharīʿah macro monetary variables. To determine the dynamic shock of structural monetary policy and mitigate its impact, a non-recursive SVAR is used, which allows the imposition of restriction assumptions into the model. The non-recursive structure provides an explanation of the simultaneous contemporaneous interactions between variables.

Non-recursive SVAR models in this study have restrictions as written in the matrix below:

$1 -\theta_1 -\theta_2 -\theta_3 -\theta_4 -\theta_5 -\theta_6 -\theta_7$	EFFR _{1t}		a_{10}		1	0	0	0	00	0	0	EFFR _{1t}		u_{1t}
$-\theta_8 1 -\theta_9 -\theta_{10} - \theta_{11} - \theta_{12} - \theta_{13} - \theta_{14}$	$SBIS_{2t}$		a_{20}		0	1	0	0	00	0	0	$SBIS_{2t}$		u_{2t}
$-\theta_{15} - \theta_{16} \ 1 \qquad -\theta_{17} - \theta_{18} - \theta_{19} - \theta_{20} - \theta_{20}$	7DRR 3t		a_{30}		a_{31}	0	1	0	00	<i>a</i> ₃	a ₃₈	7DRR _{3t}		u_{3t}
$-\theta_{21}-\theta_{21}-\theta_{22} 1 -\theta_{23}-\theta_{24}-\theta_{25}-\theta_{26}$	RDEP _{4t}	=	a_{40}	+	0	<i>a</i> 42	<i>a</i> 43	3 1	00	0	0	RDEP _{4t}	+	\mathcal{U}_{4t}
$-\theta_{27}-\theta_{28}-\theta_{29}-\theta_{30} \ 1 -\theta_{31}-\theta_{32}-\theta_{33}$	RFIN _{5t}		a_{50}		0	<i>a</i> ₅₂	<i>a</i> ₅₃	s 0	10	0	a ₅₈	RFIN5t		u_{5t}
$-\theta_{34} - \theta_{35} - \theta_{36} - \theta_{37} - \theta_{38} \ 1 \qquad -\theta_{39} \ -\theta_{40}$	DEP _{6t}		a_{60}		0	0	0	<i>a</i> ₆	4 O 1	0	0	DEP _{6t}		u_{6t}
$-\theta_{41} - \theta_{42} - \theta_{43} - \theta_{44} - \theta_{45} - \theta_{46} 1 \qquad -\theta_{47}$	FIN _{7t}		a_{70}		0	<i>a</i> ₇₂	<i>a</i> ₇₃	₃ 0	00	1	a ₇₈	FIN _{7t}		u_{7t}
$-\theta_{48} - \theta_{49} - \theta_{50} - \theta_{51} - \theta_{52} - \theta_{53} - \theta_{54} 1$	P_{8t}		a_{80}		0	0	0	a_{8}	$40 a_{8}$	₆ 0	1	P_{8t}		u_{8t}

Structural variance covariance matrix is *D* assumed to be diagonal, so the model is overidentified because there are more 4 restrictions. To compile the equation notation in the matrix form above explicitly, it can be seen in its partial equation. For example the price equation (inflation) as follows: $P_t = \alpha_{80} + \alpha_{84}^{\text{RDEP}} + \alpha_{86}^{\text{DEP}} + B_{1xt-1} + B_{pxt-p} + u_{8t}$. Likewise, for the other equations.

An explanation of the restrictions imposed is as follows: the first two variables EFFR and SBIS are considered as external variables that are not affected by the temporary shock of the

179

Monetary

domestic variables in the system. The EFFR and SBIS variables are only influenced by themselves. EFFR here used to shows that Indonesia is a small open economy that influenced by exogen variable. The 7DRR variable is influenced by the EFFR, because the benchmark interest rate in a small open economy will inevitably be influenced by the world interest rate represented by the Fed's interest rate. In addition, the determination of 7DRR is also influenced by the variable financing (FIN) and inflation (*P*), the amount of financing will affect the determination of the amount of 7DRR because it is used to stimulate it, likewise inflation will be adjusted to the development of the reference interest rate.

Results and discussion

This paper found that although the influence of the Islamic monetary system is still relatively small compared to the conventional system in transmitting monetary policy to the real sector, the Islamic system can reduce the adverse impact of interest rates, so it will not cause inflation and increase

Stationarity test and optimum lag

The test method used to carry out stationary tests is the ADF test with a maximum lag of 4. If the *t*-ADF value is smaller than the critical value of MacKinnon, it can be concluded that the data we use do not contain unit roots. Several preliminary tests are required including unit root test, stability test, optimum lag test and cointegration test. Unit root test is used to determine whether data (variable) is stationary in level or stationary in first difference. When unit root exists, it means that the data is not stationary and has trend component in it, which should be removed to produce un-spurious results. Augmented Dickey-Fuller or ADF test and Phillips-Perron or PP test are used simultaneously to test the existence of unit root or the stationary of the data. Using 5 per cent McKinnon critical value, there are only two variables that stationary at level (EFFR effective federal funds rate and rFIN Islamic financing rate of return). However, all variables are stationary at first difference.

The estimated optimal lag length selection, SC (Schwarz information criterion) and HQ (Hannan-Quinn information criterion) recommend lag 1 and 2, while FPE (final prediction error), LR (sequential modified LR test statistic at 5%) and AIC (akaike information criterion) recommend lag length the same is 4. Because the best choice between 2 lag or 4 lag, referring to Liew and Terence (2005) and Ivanov and Kilian who recommend AIC as the strongest criterion for monthly observational data, then the lag is chosen 4.

SVAR estimation

The result of an estimate of SVAR with established restrictions, of the 14 parameters produced, most are significant, there are only 3 coefficients that have a significance value greater than 5%, namely c(1) in the BI reference interest rate equation (7DRR), c(3) and c(13) in the RFIN equation. In general as shown in Table 2, these results reflect good estimation results because the core of SVAR analysis is the analysis of impulse responses and the decomposition of variations. The EFFR coefficient apparently has no effect on the 7DRR, it is certainly an unexpected result, theoretically with a small open economy, changes in the interest rates of the US Fed will affect almost all the central bank's benchmark interest rates in the world. equivalent return on deposits in Islamic banks (RDEP) directly. This could

Table 2.Estimation results ofstructural-VAR model	Log likelihood LR test for over-identification Chi-square(22)	-89,608,292	-89,608,292				
		1.79E+08	Probability	0.0000			

180

IES

28,2

happen because in the research period the reference was stable both the 7DRR and the EFFR itself, so that there was no shock reading from the EFFR. Furthermore SBIS has no effect on the equivalence of financing interest rates (RFIN), meaning that the determination of profit sharing ratio as a proxy for financing interest is not influenced by the level of SBI returns and funds deposited on the instrument. Likewise inflation (*P*) does not affect the interest rate on Islamic bank financing. The other parameters are in line with expectations, so the results are good enough for an analysis of the shock response of a policy.

Stability test

Based on the VAR stability test in the figure, Islamic monetary transmission shows the modulus value of the model entering the circle. Based on these results it can be concluded that the VAR model is stable so that antest can be performed impulse response and VD on this model. Figure 1 shows that all modulus values are less than one, and there are no explosive variables so that the model is stable.

Impulse response function

Figure 2 below shows that the vertical axis in the IRF image describes the standard deviation used to measure how much response will be given by RDEP, RFIN, DEP AND FIN if there is a shock to the 7 days repo rate (7DRR). Whereas, the horizontal axis shows the duration of variable response time in the model if there is a shock at 7DRR. If the 7DRR response above the horizontal axis indicates that the shock will have a positive effect, vice versa if the 7DRR response below the horizontal axis indicates that the shock has a negative effect.

IRF analysis on Islamic monetary transmission in the next 10 months. It can be explained that monetary policy shocks have been responded positively by Islamic banks with an increase in the equivalent rate of return (DEP) and financing (FIN). Although the pattern of change in the rate of return is different because the RFIN level starts to fall in the 5th month





Monetary policy shocks in Indonesia



Figure 2. Sharīʿah variable response to 7DRR

and negative in the 7th month, both the DEP and FIN variables continue to show a decline. The highest response to the shock of 7DRR monetary policy is the equivalent level of savings in Islamic banks (RDEP), where RDEP responds positively about 1.5% to 7DRR shock at one standard deviation. This means that the higher the 7DRR, BI implements a tight monetary policy, the Islamic banks will also increase yields by increasing the equivalent rate of return.

The level of return on deposits in Islamic banking is consistently positive until it reaches a balance of around 1% in the 10th month. Therefore, it is true that the movement of the BI benchmark interest rate will encourage both conventional banks and Islamic banks to raise interest rates, so that this positive relationship is proven. That way BI policies are also aligned transmitted by Islamic banks by increasing the rate of return so that people save their funds in the banking system. However, the public's response in responding to the increase in the rate of return only lasted for 2 months, after which time deposit funds (DEP) actually responded to being negative starting to enter the 3rd month, during the 10th month it only began to rise again.

The DEP variable only responds to the short term because at the same time the response to the financing interest equivalent rate (RFIN) also rises with an increase of 7DRR. In this case the two indicators of the rate of return show a similar response that is positive to the shock of monetary policy. Even though in the 7th month the financing interest rate (RFIN) began to fall even negative to minus 1%, at the same time financing (FIN) continued to show a downward trend. The response of both RDEP and RFIN returns shows a positive relationship until the 5th month, where the interest rate of financing responds to greater monetary policy shock. This large response was apparently not consistent enough because starting from month 5 it tends to decrease even negatively entering month 7. It can be explained that the high level of interest financing equivalent will subsequently result in declining financing so that banks will eventually reduce their financing interest rates again. This is consistent with FIN's response to 7DRR which tends to continue to decline. While the DEP variable, although initially decreased, recovery began in the 9th month. The difference in adjustment is related to the time value of money, where people still need banks as a place to store their funds in the long run.

Figure 2 shows that the vertical axis in the IRF image describes the standard deviation used to measure how much response will be given by RDEP, RFIN, DEP AND FIN if there was a shock of 7 days repo rate (7DRR). Whereas, the horizontal axis shows the duration of variable response time in the model if there is a shock at 7DRR. If the 7DRR response above the horizontal axis indicates that the shock will have a positive effect, vice versa if the 7DRR response below the horizontal axis indicates that the shock has a negative effect.

IRF analysis on Islamic monetary transmission in the next 10 months. It can be explained that monetary policy shocks have been responded positively by Sharīʿah banks with an increase in the equivalent rate of return (DEP) and financing (FIN). Although the pattern of change in the rate of return is different because the RFIN level starts to fall in the 5th month and negative in the 7th month, both the DEP and FIN varuabels continue to show a decline. The highest response to the shock of 7DRR monetary policy is the equivalent level of savings in Islamic banks (RDEP), where RDEP responds positively about 1.5% to 7DRR shock at one standard deviation. This means that the higher the 7DRR, BI implements a tight monetary policy (tight), the Islamic banks will also increase yields by increasing the equivalent rate of return.

The level of return on deposits in Islamic banking is consistently positive until it reaches a balance of around 1% in the 10th month. Therefore, it is true that the movement of the BI benchmark interest rate will encourage both conventional banks and Islamic banks to raise interest rates, so that this positive relationship is proven. That way BI policies are also aligned transmitted by Islamic banks by increasing the rate of return so that people save their funds in the banking system. However, the public's response in responding to the increase in

Monetary policy shocks in Indonesia

the rate of return only lasted for 2 months, after which time deposit funds (DEP) actually responded to being negative starting to enter the 3rd month, during the 10th month it only started to rise again.

The DEP variable only responds to the short term because at the same time the response to the financing interest equivalent rate (RFIN) also rises with an increase of 7DRR. In this case the two indicators of the rate of return show a similar response that is positive to the shock of monetary policy. Even though in the 7th month the financing interest rate (RFIN) began to fall even negative to minus 1%, at the same time financing (FIN) continued to show a downward trend. The response of both RDEP and RFIN returns shows a positive relationship until the 5th month, where the interest rate of financing responds to greater monetary policy shock. This large response was apparently not consistent enough because starting from month 5 it tends to decrease even negatively entering month 7. It can be explained that the high level of interest financing equivalent will subsequently result in declining financing so that banks will eventually reduce their financing interest rates again. This is consistent with FIN's response to 7DRR which tends to continue to decline. While the DEP variable, although initially reduced, recovery began in the 9th month. The difference in adjustment is related to the time value of money, where people still need banks as a place to store their funds in the long run.

Figure 3 above shows the response of Sharī ah monetary variables to SBIS shock variables. RDEP consistently responds positively until the end of the observation period, even going up slightly in the middle of the 6th and 7th months. This means that the higher the SBIS as indicated by the increasing number of Islamic banking funds parked in the SBIS instrument, the bank will increase the rate of return on deposit so that the DEP rises, with the expectation the funds can be placed on SBIS that provide a good and safe return rate. However, DEP responded differently in the 4th month, where the community began to respond negatively to SBIS shock. When Islamic banks increase RDEP, the public stays to increase their deposits (DEP) up to the 4th month. For the return on financing (RFIN), Islamic banking immediately responds negatively by lowering the financing interest rate (FIN), but tends to return initially at 8 months onwards stable. But the amount of financing (FIN) even tends to continue to decline negatively from the original condition. This condition is related to risk, where placement in SBIS will be safer than providing financing for the real sector which is more risky even with a profit sharing scheme. In general, Sharī ah transmission variable responses to 7DRR and SBIS monetary policy shock tend to show the same pattern and in accordance with monetary theory. A slight difference was shown in the RFIN variable because it immediately responded negatively by 16% at the start of shock and returned to the initial balance at the 10th month.

Now we see how the transmission of monetary policy can be crossed by Islamic monetary variables in influencing inflation. We can see that all RDEP variables, RFIN. DEP and FIN all contribute to the increase in inflation, it is shown by the response P which is above the midline (positive) in Figure 4, all variables affect inflation around 1% even though with different fluctuations, for example the FIN variable was responded negatively in the 3rd month, but only briefly later rose again. It can be said that, monetary policy by raising the benchmark interest rate of 7DRR and SBIS is still unable to restrain inflation, but at least Islamic banks can transmit to inflation moderately, an increase of 1% inflation in a year is a natural phenomenon in a developing economy.

Variance decomposition

After analyzing dynamic behavior through impulse response, the characteristics of the model will be seen through VD. The analysis here focuses on how variables in Islamic banking affect inflation (*P*). As can be seen in the table, the most dominant RDEP variable is influenced by its

184

IES

28,2











own variable which reaches 90% in the first month, then consistently becomes 70% at the end of the period. The next variable that influenced RDEP was SBIS by 16% and 7DRR by 10%. This shows that the SBIS Sharīʿah monetary policy variable shows a greater influence than the 7DRR as a proxy for conventional policies, although it also influences RDEP.

VD on the transmission of Islamic monetary policy to determine the contribution of the RDEP, RFIN, DEP AND FIN variables to changes in 7DRR AND SBIS and their effect on inflation (*P*) in the coming periods. VD analysis shows that the variable that is expected to have the greatest contribution to *P* is itself which reached 90% at the beginning of the period and continues to fall until it reaches a firm figure of 45%. In the next ten months RFIN, DEP and RDEP and FIN contributed 16%, 12%, 8% and 7%, respectively. But at the beginning of the period, DEP made a greater contribution because it affected the money supply (JUB) as a target between monetary policy of 1.5%.

Conclusion

From the results of the above study, it can be concluded that the variables in Islamic banking which are proxy with FIN, RFIN, DEP and RDEP have different responses in parameters both in impulse and decomposition, but in general give a similar response when there is a change or shock of monetary policy both conventional (7DRR) and Sharīʿah (SBIS). Likewise Islamic monetary variables can affect the economy in this case inflation (*P*), but with little impact. This is in conformity with Amaluddin (2007), Ascarya (2012) and Hamza and Saadaoui (2018) who found that although the influence of the Islamic monetary system is relatively small compared to the conventional system in transmitting monetary policy to the real sector, the Islamic system can reduce the adverse impact of interest rates, so it will not cause inflation to increase.

Analysis of the IRF proves that the pattern of relationships between Sharīʿah monetary instruments (SBIS) and Islamic banking financing (LFIN) is negative. This means that the higher the SBIS determined by Bank Indonesia, the lower amount of Islamic financing provided to the public. This is understandable because with a relatively high SBIS, Islamic banking will tend to choose to deposit funds in Bank Indonesia and become reluctant to extend loans to customers. The impact will certainly be counterproductive, people who need capital will be more difficult to find business financing, including Islamic banking. Similarly, the relationship that occurs between 7DRR with FIN.

Other IRF results show that the DEP relationship pattern with SBIS is negative, meaning that the higher SBIS will cause a decrease in the collection of Islamic funds and vice versa. Although the initial shock could respond positively. The reason is, when the monetary authority conducts a policy of raising SBIS interest rates, it will trigger the conventional banking industry to raise interest rates on loans, savings and deposit rates. This will have an impact on the decline in competitiveness of Islamic banking. The profit sharing return provided by Islamic banks will be less competitive compared to savings and deposit interest given by conventional banks. Directly or indirectly this will affect the reduction in the amount of third party funds (DPK) received and the amount of financing channeled by the Islamic banking industry.

Judging from the variation decomposition, SBIS Sharī ah monetary instrument is more contributed to the Sharī ah banking financing variable (FIN) compared to the conventional 7DRR instrument. This is reasonable and can be understood that Islamic banking financing is more influenced by Islamic monetary policy instruments, this is evidenced by the greater contribution. Another important conclusion is that the pattern of relationships between Islamic monetary variables and inflation (P) is volatile; it can be positive or negative. This condition can be explained when inflation is getting higher, Bank Indonesia as the monetary authority will respond by raising SBI interest rates, which is why conventional banks Monetary policy shocks in Indonesia

generally raise interest rates. Like the condition above, when conventional bank interest is high, it will cause Islamic banking to be less competitive. In the end, it is very likely that the number of third-party funds along with Islamic bank financing will decline. The higher the amount of Indonesian Islamic banking financing, it will have an effect and contribute positively to the decrease in Indonesia's inflation rate. Bank of Indonesia should focus to maintain inflation using SBIS and short term interest rate. The financing bank lending channel still dominated the role for economic growth. Bank of Indonesia has recognized this and issued regulation supporting Islamic banking intermediary.

References

- Agha, A., Ahmed, N., Mubarik, Y.A. and Shah, H. (2005), "Transmission mechanism of monetary policy in Pakistan", SBP-Research Bulletin, Vol. 1.
- Amaluddin, F. (2007), Efektifitas Transmisi Kebijakan Moneter Antara Bank Syariah Dan Konvensionan, Theses. FE-UI.
- Anwar, S. and Nguyend, L.P. (2018), "Channels of monetary policy transmission in Vietnam", *Journal of Policy Modelling*, Vol. 40 No. 4, pp. 709-729, doi: 10.1016/j.jpolmod.2018.02.004.
- Ascarya (2012), "Alur Transmisi dan Efektifitas Kebijakan Moneter Ganda di Indonesia", Buletin Ekonomi Moneter Dan Perbankan, pp. 283-315.
- Ascarya (2014), "Monetary policy transmission mechanism under dual financial system in Indonesia: interest-ptofit channel", *International Journal of Economics, Management, and Accounting*, Vol. 22 No. 1, pp. 1-32.
- Auclert, A. (2017), "Monetary policy and the redistribution channel", NBER Working Paper 23451, National Bureau of Economic Research, Cambridge, MA. doi: 10.3386/w23451.
- Aysan, A.F., Disli, M. and Ozturk, H. (2018), "Bank lending channel in a dual banking system: why are Islamic banks so responsive?", *The World Economy*, Vol. 41 No. 3, pp. 674-698, doi: 10.1111/ twec.12507.
- Aysun, U. and Hepp, R. (2013), "Identifying the balance sheet and the lending channels of monetary transmission: a loan-level analysis", *Journal of Banking and Finance*, Vol. 37 No. 2, pp. 2812-2822, doi: 10.1016/j.jbankfin.2013.04.006.
- Beik, A. and Arsyianti, D. (2013), "Dynamic analysis of Islamic bank and monetary instrument towards real output and inflation in Indonesia", *Proceeding of Shari an Economics Conference-Hannover*.
- Bernanke, B. (1993), "Credit in the macroeconomy", Quarterly Review, Vol. 18, pp. 50-70.
- Bernanke, B.S. and Gertler, M. (1995), "Inside the black box: the Credit Channel of monetary policy transmission", *The Journal Of Economic Perspectives*, Vol. 9 No. 4, pp. 27-48, (Autumn, 1995) Published by American Economic Association.
- Brischetto, A. and Voss, G. (1999), A Structural Vector Auto Regression Model of Monetary Policy in Australia, Research Discussion Paper, Reserve Bank of Australia.
- Buckle, R.A., Kim, K., Kirkham, H., McLellan, N. and Sharma, J. (2007), "A Structural VAR business cycle modelmodel for a volatile small open economy", *Economic Modeling*, Vol. 24, pp. 990-1017.
- Cecchetti, S.G. (1999), "Legal structure, financial structure and the monetary policy transmission mechanism", NBER Working Paper Series, pp. 1-35, available at: https://www.nber.org/ papers/w7151.
- Chapra, M. Umer (2000), Islamic Monetary System, Gema Insani Press, Jakarta.
- Cushman, D.O. and Zha, T. (1997a), "Identifying monetary policy in a small open economy under flexible exchange channel", *Journal of Islamic Monetary Economics and Finance*, Vol. 4 No. 2, pp. 251-278.

IES

28,2

Cushman, D.O. and Zha, T. (1997b), "Identifying monetary policy in a small open eco	onomy under
flexible exchange rates", Journal of Monetary Economics, Vol. 39, pp. 433-448.	

- Dungey, M. and Pagan, A. (2000), "A Structural VAR model of the Australian economy", The Economic Record, Vol. 76, pp. 321-342.
- Erdogdu, A. (2017), "Functioning and effectiveness of monetary transmission mechanisms: Turkey applications", *Journal of Finance and Bank Management*, Vol. 5 No. 1, pp. 29-41, doi: 10.15640/jfbm.v5n1a3.
- Evans, C.L., Fisher, J.D.M., Gourio, F. and Krane, S. (2015), "Risk management for monetary policy near the zero lower bound", *Brookings Papers on Economic Activity*, Vol. 1, pp. 141-219.
- Fikri, R.J. (2018), "Monetary transmission mechanism under dual financial system in Indonesia: creditfinancing channel", *Journal of Monetary Economics*, Vol. 39, pp. 433-448.
- Hamza, H. and Saadaoui, Z. (2018), "Monetary transmission through the debt financing channel of Islamic banks: does PSIA play a role?", *Research in International Business and Finance*, Vol. 45, pp. 557-570, doi: 10.1016/j.ribaf.2017.09.004.
- Helmy, O., Fayed, M. and Hussien, K. (2018), "Exchange rate pass-through to inflation in Egypt: a structural VAR approach", *Review of Economics and Political Science*, Vol. 3 No. 2, pp. 2-19, doi: 10.1108/REPS-07-2018-001.
- Herianingrum, S. and Syapriatama, I. (2016), "Dual monetary system and macroeconomic performance in Indonesia", *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah (Journal of Islamic Economics)*, Vol. 8 No. 1, pp. 65-80.
- Janjua, P.Z., Rashid, A. and Ain, Q. (2014), "Impact of monetary policy on bank' balance sheet in Pakistan", *International Journal of Economics and Finance*, Vol. 6 No. 11, p. 187, doi: 10.5539/ ijef.v6n11p187.
- Jermann, U. (2019), Negative Swap Spreads and Limited Arbitrage (No. W25422), National Bureau of Economic Research, Cambridge, MA. doi: 10.3386/w25422.
- Kashyap, A. and Stein, J. (1994), "Monetary policy and bank lending", in Gregory Mankiw, N. (Ed.), Monetary Policy, National Bureau of Economic Research, pp. 221-261.
- Liew, V.K.S. and Terence, T.L.C. (2005), "Autoregressive lag length selection criteria in the presence of ARCH errors", *Economics Bulletin*, Vol. 3 No. 19, pp. 1-5.
- Majid, M.S.A. and Hasin, Z. (2014), "Islamic banks and monetary transmission mechanism in Malaysia", *Journal of Economic Cooperation and Development*, Vol. 35 No. 2, pp. 137-166.
- Miah, D.M. and Uddin, H. (2017), "Efficiency and stability: a comparative study between islamic and conventional banks in GCC countries", *Future Business Journal*, Vol. 3 No. 2, pp. 172-185.
- Mohsin, H.M. (2011), "The impact of monetary policy on lending and deposit rates in Pakistan: panel data analysis", *Lahore Journal of Economics*, Vol. 16 Special E, pp. 199-213.
- Montes, G.C. and Monteiro, G.G.D.V. (2014), "Monetary policy, prudential regulation and investment: evidence from Brazil considering the Bank lending channel", *Journal of Economic Studies*, Vol. 7 No. 1, pp. 63-83, doi: 10.1108/MRR-09-2015-0216.
- Octaviani, I. and Arif, M.N. (2018), "Islamic monetary policy and its impact on real sector", *Trikonomika*, Vol. 17 No. 2, pp. 43-48.
- Ozkan, I. and Erden, L. (2015), "Time-varying nature and macroeconomic determinants of exchange rate pass-through", *International Review of Economics and Finance*. doi: 10.1016/j.iref.2015. 01.007.
- Parrado, E. (2001), "Effects of foreign and domestic monetary policy in a small open economy: the case of Chile". Working Papers (108). Central Bank of Chile.
- Rashid, A., Yousaf, S. and Khaleequzzaman, M. (2017), "Does islamic banking really strengthen financial stability? Empirical evidence from Pakistan", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 10 No. 2, pp. 130-148.

Monetary policy shocks in Indonesia

Sanfilippo-Azofra, S	S., Tori	re-Olm), B.,	Cantero-S	Saiz, M.	and	López-Gutiér	rez, C.	(2017),	"Financ	cial
development	and	the E	ank	lending	channe	l in	developing	counti	ries", j	Iournal	of
Macroeconom	<i>ics</i> , Vo	l. 55, p	p. 21	5-234, doi:	10.1016	/j.jma	cro.2017.10.00)9.			

- Setiawan, R.Y. and Karsinah (2016), "Mekanisme Transmisi Kebijakan Moneter Dalam Mempengaruhi Inflasi dan Pertumbuhan Ekonomi di Indonesia", *Economics Development Analysis Journal*, Vol. 5 No. 4, pp. 460-474.
- Simpasa, A., Nandwa, B. and Nabassaga, T. (2015), "Bank lending channel in Zambia: empirical evidence from bank level data anthony", *International Journal for Researcher Development*, Vol. 7 No. 1, pp. 63-83, doi: 10.1108/MRR-09-2015-0216.
- Sukmana and Kaseem (2014), "Islamic banks and monetary transmission mechanism in Malaysia", Journal Of Economic Cooperation And Development, Vol. 35 No. 2, pp. 137-166.
- Syafrida, I. and Aminah, I. (2015), "Faktor Perlambatan Pertumbuhan Bank Syariah di Indonesia dan Upaya Penanganannya", *Ekonomi Dan Bisnis*, Vol. 14 No. 1, pp. 7-20, doi: 10.32722/eb. v14i1.753.
- Taylor John, B. (1995), "The monetary transmission mechanism: an emprical framework", Journal of Economic Perspectives, Vol. 9 No. 4, pp. 11-26, available at: https:// doi.org/10.1257/jep.9.4.11.
- Widodo, A. (2017), "Evaluating the effectiveness of dual monetary policy in promoting price stability in Indonesia", *Iqtishadia: Jurnal Kajian Ekonomi Dan Bisnis Islam*, Vol. 10 No. 2, pp. 210-233.
- Wulandari, R. (2012), "Do Credit Channel and interest rate channel play important role in monetary transmission mechanism in Indonesia? : a structural vector autoregression model", *Procedia -Social and Behavioral Sciences*, Vol. 65, pp. 557-563.
- Yarasevika, S., Tongato, A. and Muthia, A.C. (2015), "Bank lending channel in Indonesia's monetary policy transmission mechanism : a VECM approach", *Proceedings of ISER 5th International Conference*, Singapore, September, pp. 27-32.
- Yungucu, B. and Saiti, B. (2016), "The effects of monetary policy on the islamic FInancial services industry", *Qualitative Research in Financial Markets*, Vol. 8 No. 3, pp. 218-228.
- Zivot, Eric. (2000), Notes on Structural VAR Modelling, Econometric Class.
- Zulkhibri, M. and Sukmana, R. (2017), "Financing channel and monetary policy in a dual banking system: evidence from Islamic banks in Indonesia", *Economic Notes*, Vol. 46 No. 1, pp. 117-143.

Further reading

- Akhatova, M., Zainal, M.P. and Ibrahim, M.H. (2016), "Banking models and monetary transmission mechanisms in Malaysia: are islamic banks different?", *Journal of Applied Economics and Policy*, Vol. 35 No. 2, pp. 169-183, doi: 10.1111/1759-3441.12131.
- Amisano, G. and Giannini, C. (1997), Topics in Structural VAR Econometrics, 2nd ed., Springer-Verlag, Berlin.
- Ivanov, V. and Kilian, L. (2007), "A practitioner's guide to lag-order selection for VAR impulse response analysis", *Studies in Nonlinear Dynamics and Econometrics*, Vol. 9 No. 1, p. 1219.

Corresponding author

Aula Ahmad Hafidh can be contacted at: aula_hsf@uny.ac.id

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm Or contact us for further details: permissions@emeraldinsight.com

IES 28,2



Bringing Research to Life.

For over 50 years, championing fresh thinking has been at the heart of the Emerald business. Our core ethos, is to help make a difference so that little by little those in academia or in practice can work together to make a positive change in the real world.

Join us in making a difference.

emeraldrealimpact.com #RealImpact

Connect with us through social media



11/19_19746



Emerald Open Research

Easy, rapid & transparent publishing

Emerald Open Research is a new open access platform that supports rapid publication and allows authors to achieve transparency through an open peer review process and open data policy.

Research will be freely available to read, download and reuse, reaching a truly global audience.

Set your research free at www.emeraldopenresearch.com

Connect with us through social media

