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Islamic Finance

Risk Management and Sustainability

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Abstract

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Islamic finance is the interest-free provision of financial activities following rules and principles based on religious rulings known as Shar'iah, thereby differing from traditional conventional finance. The objective of this paper is to research function of Islamic finance, risk management and how it can contribute to the achievement of the United Nations Sustainable Development Goals (UN's SDG's). The research hypotheses assume that Islamic finance, specifically Islamic banking lack efficient risk management and, with improved risk management Islamic Finance can support the achievement of UN's SDG's to be met by 2030. This paper investigates risk management in Islamic finance and performance during the global financial crisis in 2008. Studies of Malaysia, Saudi Arabia and United Arab Emirates have been included in the research due to their dual-banking system. Furthermore, the paper investigates the sustainability of Islamic finance and its alignment with the UN's SDG's. The method used to conduct this research and answer the hypotheses is cross-examination and source criticism of secondary research of existing literature and studies. It has not been possible to reject the hypotheses as the research has found that risk management needs improvement while some challenges are due to the gap in regulations and risk frameworks because of factors exclusive to each country's society. The research has also found that Islamic finance, when Shari'ah compliant, operates in sustainable ways targeting areas of improvement aligning with the UN's SDG's.

Keywords: Islamic Finance, Islamic Banking, Sustainability, Risk Management, Malaysia, GCC, CSR, Sustainable Development Goals.

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Glossary

AAOIFI	Accounting and Auditing Organization of Islamic Financial Institutions
CIBAFI	The General Council for Islamic Banks and Financial Institutions
CSR	Corporate Social Responsibility
GCC	Gulf Cooperation Council. Members are countries in the Gulf region
IFSB	Islamic Finance Services Board
IIFM	International Islamic Financial Market
IIRA	Islamic International Ratings Agency
IPDS	Islamic Private Debt Securities
ROI	Return on Investment
SSB	Shari’ah Supervisory Board
UN’s SDG	United Nations Sustainable Development Goals

1 Introduction

In 2008 the world experienced the impacts of a global financial crisis. Islamic Finance grew popular as there were signs of stability and sustainability in its performance compared to its conventional counterparts. Islamic finance is a system based on the principles and rulings of Islamic law, namely Shari'ah, that fulfils the high demands of conventional banking alternatives to Muslims. Islamic finance operates interest-free, as interest is prohibited due to the belief of interest benefitting the rich thus creating inequality with the poor. The main differences between Islamic and conventional banking and finance are the prohibition of interest, uncertainty, gambling and transactions including items such as pork, alcohol and destructive weapons, believed by the Shari'ah to be unethical. Risk management is an essential part of any operation to be profitable or successful, especially in the financial sector, in order to reduce the impact of a crisis such as the global financial crisis of 2008. Due to the performance of the Islamic financial industry during this crisis, various researchers have analysed the risk management frameworks and compared the operational differences to conventional financial industries. Several regulatory bodies have been founded to create unity, cooperation and standard frameworks for Islamic financial institutions since the establishment of the first few modern Islamic banks, e.g., the Accounting and Auditing Organization of Islamic Financial Institutions (AAOIFI) (Alam, Gupta and Shanmugam, 2017). The regulatory bodies work closely with Shari'ah Supervisory Boards (SSB) at the financial institutions to ensure the regulations align with the rules of Shari'ah. However, a gap in uniformity of Islamic Financial Institutions has occurred as a result of various shari'ah compliancy views and standard financial frameworks amongst scholars because of different schools of thought dominating in each country (Khan, 2010).

Risk-sharing is a practice used in Islamic finance whereby borrower and lender share profit and loss generated from the investment made by the bank into a business venture, contrary to interest in conventional banks. This risk-sharing

element is believed to encourage entrepreneurship while also implementing the Shari'ah principles, including investments that benefit the society and the environment. Islamic financial institutions primarily operate in Asia and the Gulf region; however, they also operate in Europe, namely Germany and the United Kingdom, with fully-fledged Islamic banks as well as Islamic windows in conventional banks due the demands of their large Muslim populations.

To conclude, this thesis aims to understand the operation of Islamic financial industries and areas in need of improved risk management. The research hypotheses suggests that Islamic finance lack risk efficient management and assumes its operation can support the achievement of United Nations' Sustainable Development Goals (SDGs) with efficient risk management.

2 Scope of research

Islamic Finance is a broad topic with many research possibilities. Therefore the scope of research has been limited to instruments of Islamic banking, risk management and sustainability, with case studies of Islamic finance in Muslim countries compared to conventional banking. The main factor differentiating Islamic banking from conventional banking is the interest-free approach due to Shariah law being the foundation of Islamic banking. Risk management has therefore been chosen as a focal point in the research. Malaysia and the Gulf Cooperation Council (GCC) have been largely contributing to the growth of the Islamic finance industry, thereby the focus of the case studies included in this research will be limited to Malaysia, Saudi Arabia and the UAE (S&P Global ratings, 2022).

As discussed by Aliyu, Hassan, Mohd Yusof & Naiimi (2017) in an article about Islamic banking sustainability, relevant literature on sustainability in relation to Islamic Finance is limited. While a majority of the available literature focuses on similar issues within Islamic finance, the general discussion surrounding this topic emphasises the room for improved risk management in Islamic banking, hence this paper aims to improve this research area. Over the years, more

research has been conducted as Islamic finance popularity grew following the financial crisis along with the demand for Islamic banking in Europe. With Germany and the UK offering extensive Islamic banking services, this research paper includes comparison to Islamic banking in Malaysia, Saudi Arabia and UAE. The most preferred type of Islamic banking contract, Musharakah, also resembles the German traditional bank-based finance (Alam, Gupta and Shanmugam, 2017:74). Moreover, various types of Islamic banking contracts and similarities with conventional banking have been included in the research, although the focus has been limited to the four common types in relation to measuring risk management.

According to earlier research, many argue that literature about risk management of Islamic Finance as well as sustainability of Islamic Finance is limited, increasing the interest for this research. Profit-loss sharing is one of the main principles of Islamic Finance, though it is often not equitably distributed as it is not equivalent to risk-sharing, according to Hasan (2020).

Though the book *Islamic Finance and Sustainable Development* by Hassan, Saraç and Khan (2021) argues that Islamic banks, if risk management improves, can support the achievement of Sustainable Development Goals, there is little research material surrounding Islamic finance and sustainable finance. The important topic of sustainability has been discussed more over the last few years, including sustainable finance, thus the reliability of information has been cross-examined. Despite the limitations, sustainable practices within Islamic finance and the 2023 sustainable development goals of the European Commission have also shaped the research focus of this paper.

Furthermore, the historical data surrounding Islamic finance industry’s growth over the years and its resilience towards the significant effects of global financial crisis has relevancy in this research. Research material on the recent global COVID-19 pandemic is limited to the current available data due to insignificant empirical data and ongoing research post pandemic, therefore the focus will be the global financial crisis in 2008.

The wide selection of available research material and various research perspectives on Islamic finance aids the cross-examination and source criticism analysis approach of this paper. Possibility of religious beliefs, bias, criticism and optimism for Islamic finance industry influencing previous research has been taken into consideration to avoid material affecting the credibility of this thesis. The perspective here is strictly objective and based on credible research, analysing various perspectives.

The overall aim of this research is to contribute to existing research surrounding Islamic finance with improved understanding of the lack of risk management and its relation to sustainable finance. Though the perspective of this research topic can be related to history, sociology and religious studies, this research paper aims to narrow its research within the field of business studies, more specifically Finance.

3 Methods

As a result of conducting a literature review, to answer the research question surrounding Islamic finance, its risks and its relevancy to sustainable finance, secondary data collection has been deemed an appropriate research approach for this paper. The research material for this paper has primarily been collected from existing literature to understand the theory behind Islamic banking while comparing it to conventional banking. In addition, relevant articles and existing case studies on countries operating on Islamic finance have been included in the research following critical evaluation and cross-examination of the data. As sustainability has been discussed more frequently in the recent years, various articles surrounding sustainable finance have been compared and analysed.

This paper also discusses if Islamic finance can contribute to the European Union’s sustainable development goals aimed to be achieved by 2030, with the aid of governmental articles and perspectives of finance experts. The data collected from case studies on several countries with Islamic banking, were

necessary in analysing the risks and operation of Islamic banking, to have sufficient data to compare against conventional banking.

The research material has shown that risk management in Islamic banking is an area that needs improvement, as opposed to conventional banking where risk management is more advanced. Furthermore, some sources have also shown strong doubt regarding the interest-free aspect of Islamic banking. Case studies on countries with a large Islamic finance sector and European countries offering Islamic banking, Germany and the UK, have been included in the research to support the analysis of comparison between conventional and Islamic banking.

The objective of the thesis is to analyse the theory of Islamic banking, to identify the risks of Islamic banking and whether it is sustainable. The research includes two hypothesis suggesting that Islamic finance in Muslim countries where it operates, lack risk management and, with efficient risk management Islamic Finance could support the achievement of the United Nations' Sustainable Development goals.

The approach of this research is critical of the operation Islamic banking, its sustainability and risk management, therefore utilizing case studies as research material to compare Islamic banking and conventional banking. The author of this paper has no relation to Islamic banking or personal financial interest surrounding this topic that could interfere with the transparency and objectivity of the research paper apart from interest in the topic of the research and follower of the religion. Research material regarding the 2008 global financial crisis and its effect on Islamic banking have been utilized in this paper to support the testing of the hypotheses of the sustainability and risk management in Islamic finance.

To conclude this chapter, secondary research has been deemed appropriate to answer the research question concerning Islamic finance, its risk management and sustainability. The relevant research material has been collected from

scientific literature, previously researched case studies and articles with careful source criticism and analysis.

4 Islamic Finance

4.1 Functions of Islamic Finance

Islamic Finance is best defined as the provision of financial services in accordance with the principles and rules of Islamic Law, Shari'ah (IMF, 2017). The main principles of Islamic finance are Prohibition of *Riba* (interest), Prohibition of *Gharar* (speculation, uncertainty), risk-sharing, Shari'ah compliant transactions and emphasis on the importance of contracts (Alam et al., 2017:3; Bhatti I. and Bhatti M., 2009:10). A brief overview of the importance of Shari'ah within Islamic finance is crucial to understand the origin behind the principles of Islamic finance.

Islam is believed to be a religion of laws to provide guidance in an all-encompassing way of life. The foundation of Islamic faith is comprised of the three elements of *Aqedah* (Faith), *Shari'ah* (Practices) and *Akhlaq* (Ethics and morals)*. Shari'ah* is the Arabic term referring to the body of legal Islamic practices derived from the holy scripture and practices of Prophet Muhammad, *Quran* and *Sunnah*. Shari'ah governance can further be divided into two perspectives, *ibadat* and *muamalat amanah.* While *ibadat* law concerns devotional matters, *muamalat amanah* is the law pertaining to practices in political, economic and social aspects of life. Islamic finance and banking fall under economic area of *muamalat,* the conduct comprising of financial and economic development related activities (Kettell, 2011:14). To conclude, to follow the rulings of Islam in every aspect of life is of high importance to muslims, therefore shariah compliant financial services are essential, though it is not limited to muslims.

Shariah compliant transactions exclude dealing impermissible products or products that support unethical activities, such as pork, alcohol, gambling and

destructive weapons. The aforementioned have been clearly stated in the Quran as impermissible, therefore Muslims are expected to refrain from such also in financial services (Quran, 2: 219).

Riba, translated from Arabic to English, means ‘interest’ and all financial transactions receiving or giving interest, regardless of the amount, is prohibited in Islam. From a religious perspective, the Quran clearly and strongly states the condemnation of interest as it is understood to be earnings earned without efforts (Quran, 2:275-281). The effect of interest on social, moral and economic welfare is the root cause of concern resulting in prohibition of interest in Islam. From a socio-economic perspective, Islamic finance encourages entrepreneurship and work for earnings while risk is shared between lender and borrower, whereas interest in conventional banking is argued to generate more money for a person with money and create a financial gap between rich and poor.

Gharar (uncertainty) in Islamic finance is defined as gambling which leads to speculation, therefore taking uncontrollable chance and risk is prohibited in Islam. Contracts are sanctuary in Islamic finance in order to aid secure, transparent and honest business transactions (Iqbal, 1997). The term in the contract must be clear to ensure consent from seller and buyer while avoiding speculations. Selling goods based on false or inaccurate description of goods, unspecified price or unknown conditional contract are examples of gharar included transactions. The prohibition of gharar is not limited to financial transaction, thus gharar in contracts e.g., marriage and employment, shall also be avoided. According to various islamic scholars, there are two categories of gharar are Gharar Fahish (major gharar) and Gharar Yasir (minor gharar). While major gharar, including significant amount of uncertainty that is unquantifiable, is completely prohibited, minor gharar is acceptable in the form of knowledge of the sale object and minor uncertainty unlikely to disrupt completion of sale. Based on this definition of gharar, short selling, day trading and forwarding contracts fall under the category of gharar, therefore are impermissible in Islamic finance.

Moreover, Islamic finance relies on risk sharing in the form of profit-loss sharing, in contrast to conventional banking. Islamic financial institutions participate in risk-sharing by investing, therefore earning a share of the ventures or losing the investment if said venture fails (Beck, Demirgüç-Kunt and Merrouche, 2013). While conventional institutions operate on interest, Islamic banking operates commonly on partnership contracts with fees and payment structures that generate income. In the following chapter, Islamic banking and contracts will be further elaborated.

The purpose of Islamic finance is to offer shariah compliant financial services as an alternative to conventional financial services. These services are especially a result of demand from mainly followers of the religion of Islam, though it is not limited to Muslims. The development of modern Islamic finance, since the first established Islamic bank in 1963 in Egypt*, Mit Ghamr*, has shown increase in demand for Islamic finance in the western world and interest from experts as it is an interesting aspect of finance to analyse (Harrison and Ibrahim, 2016:143).

Though Islamic finance has an interest-free approach, differing significantly from conventional financial services, Islamic finance provides alternatives to the major financial instruments. According to the Islamic Finance 2021 Outlook Report by S&P Global Ratings (2022), Islamic financial assets are composed by Islamic banking, Sukuk (bonds), Takaful (insurance) and Funds. Islamic banking provides majority of the products offered by Islamic finance, followed by the fastest growing product, Sukuk (TheCityUK, 2015).

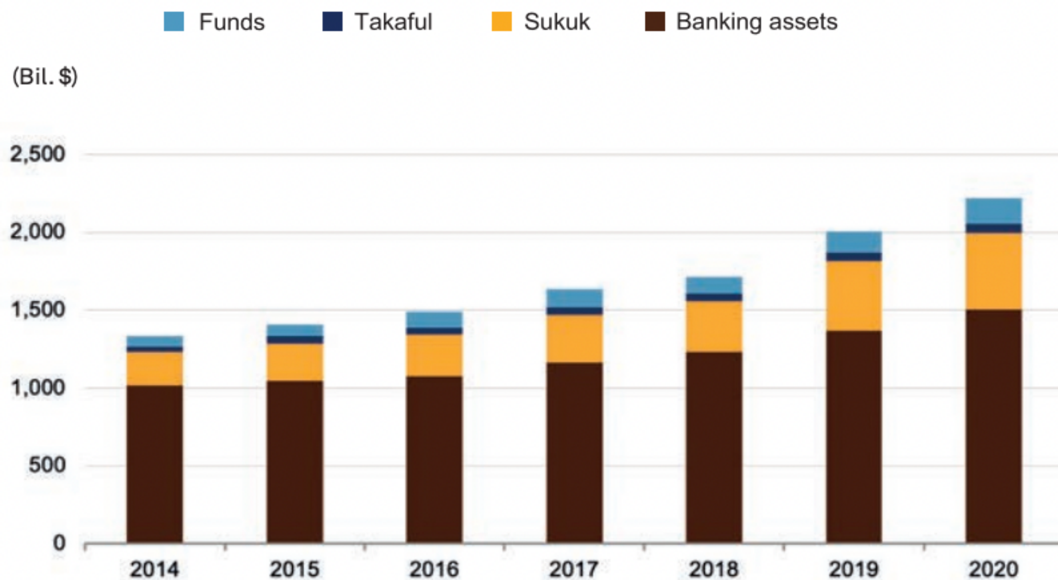

Figure 1: Growth of Islamic finance assets (S&P Global Ratings, 2022)

Figure 1 illustrates the division of Islamic financial assets across the Islamic financial industry with banking assets making up most of the assets, followed by sukuk then takaful, with funds being the smallest market within the Islamic finance industry.

To ensure that Islamic financial institutions and transactions abide by Shari'ah, Shari'ah Supervisory Boards (SSB) exists to examine contracts and transactions. SSB acts an advisory body for banks to answer questions regarding permissible financial activities due to its respective and authoritative function (Kettell, 2011:16). In addition to SSB, Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) work as an Islamic corporate body supporting institutions with frameworks regarding accounting and auditing. As Islamic financial institutions operate in several countries, the International Islamic Financial Market (IIFM) was established to set the standards for efficient cooperation amongst the institutions (Alam et al., 2017).

4.1.1 Islamic banking

An Islamic bank is a financial institution operating with the implementation of financial principles based on Shari'ah. Islamic banking was established with the

objective of advancing economic growth in the Islamic economy, with Islamic rulings as its foundation (Alam et al., 2017: 3).

Despite the limited quantity of research surrounding pre-modern Islamic banks and early developments of modern banks, research conducted by Islahi (2018) shows that Islamic banking products date back to the 19th century and establishment of banks in the 1960s. The first Islamic bank that acted as an experiment for modern Islamic banks was in fact *Mit Ghamr Saving House*, established in Egypt in 1963. Though his findings in the research surrounding pre-modern Islamic banking was limited, he also argues against claims of oil-rich countries in the Middle East as the starting point of promoting Islamic banking as a product of pan-Islamism. However, as many argue, the growth in oil wealth did influence the renewed interest in Islamic finance.

Islamic banking offers a range of products that acts as an alternative to conventional banking, with interest-free instruments. The Islamic banking system includes a set of contracts for the variety of services offered, as a basis of transparency and trust. The contracts can be categorized into three types as illustrated by Alam et al. (2017) and shown in Figure 2 below.

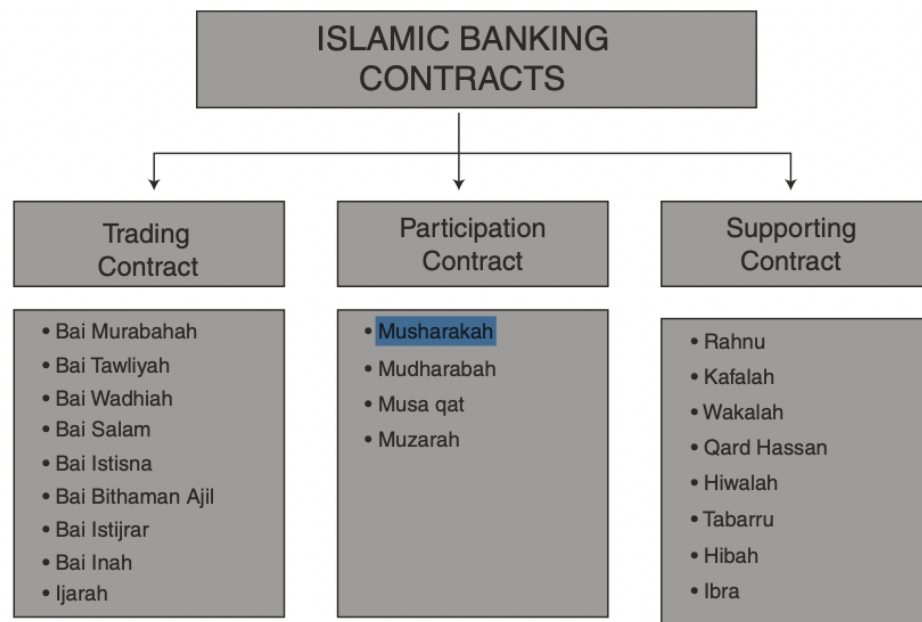

Figure 2: Illustration of Islamic banking contracts (Alam et al., 2017)

The most common trading contract as illustrated in Figure 2 can be compared to conventional banking trading contracts. Trading contracts, also known as debt-based financing, pertains to the buying and selling of assets. These include *Murabahah* (credit sale), *Salam* (forward sale), *Istisna* (manufacturing) and *Ijarah (*leasing). These are the common financial instruments often encountered in Islamic banking, to be compared to conventional financial instruments in this thesis.

Murabahah is the commonly implemented debt-financing instrument by Islamic banks as it is a short-term credit sale whereby seller and buyer have a mutual agreement of the transaction secured by the contract. *Salam* instrument is in practice a forward sale of a commodity promised by the seller to be delivered in the future. According to Muslim scholars and Usmani (2007) the condition for this transaction is the measurability of the product's quality, quantity, specification of delivery, followed by immediate payment of the full amount at the time of the contract. As the contracts are based on Shari'ah, the principle of trust and transparency in the contracts, a forward sale following these principles

is permissible. The manufacturing contract *Istisna* concerns the purchase of a commodity yet to be produced. Despite the similarity between Salam and Istisna, the difference is that salam financing is primarily used to support production agricultural goods while Istisna is used for manufacturing goods. Lastly, the lease-based Ijarah contract provides services like conventional leasing contracts though interest is paid by the lessee in addition to the cost of the leasing, while a fixed cost for the asset is paid in Ijarah (Alam et al., 2017).

Two common equity-based contracts within Islamic banking are *Musharakah* (profit-loss sharing) and *Mudabarah* (profit sharing). In profit-loss sharing contracts, two or more parties enter a contract based on partnership with equal capital and management rights over the investment, whereby profit and loss are shared according to the agreed ratio. While the two contracts are similar, business losses solely affect the investor as the other party participates only with efforts and banks provide the capital in profit sharing contracts. In contrast, conventional banking includes predetermined interest- rates as guaranteed return to the investor while the entrepreneur is faced with all loss incurred.

According to a study by Maikabara (2019) exploring why equity-based financing is less preferred than debt-based financing, factors such as high risk, moral hazard, customer unawareness and the cost of acquiring a business specialist can have an impact on this issue. In profit-loss sharing or profit-sharing contracts, banks work closely with new business ventures to generate profit that will benefit both parties. On the other hand, there are no guarantees that the business partner possesses the skills to utilize the capital efficiently to avoid loss. Considering the above-mentioned limits together with profitability and competition objectives of banks, debt-financing is the primary financing used by Islamic banks. In addition, Islamic banks are better protected against loss by debt- financing which also reflects the presence of strong elements of risk management in the preference for debt by banks (Kettell, 2013).

Finally, supporting contracts assist trading transactions and capital mobilization in the form of contracts involving agency, guarantees, interest-free benevolence

and donations. A wakalah contract involves giving a third person the permission of performing transactions on their behalf against a fee. In a contract of guarantee, known as Kafalah in Islamic banking terminology, a third person takes responsibility of the repayment of debt by creditor. Islamic banks and financial institutions offer short-term loans free of interest supported by qard hassan (benevolent loan) contract. Lasty, a tabarru contract involves donations, a practice for the sake of God, encouraged in the religion of Islam. The donation can be in the form of charity or almsgiving, known as zakat which is also the third pillar of Islam (Alam et al., 2017: 77).

4.1.2 Sukuk

Sukuk, an Islamic alternative to bonds, is currently the most popular product in the range of Islamic financing products due to its rapid growth over the years. It is one of the important components in the Islamic Capital Market. Interestingly, sukuk has gathered popularity also amongst western countries such as the UK, Luxemburg and Asian countries according to findings of Ibrahim (2015). The general structures and issuers choice of Sukuk and conventional bonds have no signicant differences. Conventional bonds are debt instruments defined by bondholder lending money to an issuer. In addition to the initial principal amount, the issuer then also owes coupon payments to the bondholder. Islamic bonds do not follow the same structure as conventional banks due to the prohibited element of interest according to Shari'ah principles. A more accurate definition of Sukuk is trust certificates due to the origin of the Arabic word 'Sakk' meaning certificate, representing ownership of an asset with a predetermined return. With traditional bonds, credit ratings of the issuer influence the size of the return on interest rate while sukuk return is also influenced by the market value of the asset. According to the Accounting and Auditing Organization Islamic Financial Institutions (AAOIFI) there are a total 14 common Sukuk structures. Research by Wilson (2008) and Abdel-Khaliq and Richardson (2013) show that the commonly offered sukuk structures are Sukuk Ijarah(leasing) and Sukuk Musharakah (partnership), the latter structure is experiencing changes to improve.

The difference in the two structures lays in the agreement and type of asset. While in sukuk ijarah an equipment or asset is rented together with undivided ownership during the agreed term, sukuk musharakah is a profit-loss sharing agreement including a manager upon fees to ensure efficiently use of equity and cash returns. Godlewski, Turk-Ariss and Weill (2013) argue that sukuk musharakah is preferred by jurists due the returns on such partnerships are dependents on the company performance rather than market rates. In addition to the difference in contracts, musharakah sukuk can be traded in the secondary market because the partnership agreement involves financing of projects or business ventures while sukuk ijarah cannot be traded in the secondary market as it involves leasing of real assets.

The sukuk market is dominated by Malaysia as the leading sukuk issuing country, taking up to 75% of the global sukuk market. Furthermore, Godlewski et al (2013) argue that half of the bond market in Malaysia consists of Malaysian sukuk. According to Godlewski et al. (2013) Malaysia issued the highest amount of sukuk followed by GCC countries in year 2007 with a difference of $9.1 billion. In 2020, the global sukuk market combined totaled to $149 billion with Malaysia and Saudi Arabia leading as sukuk issuing countries according to Fitch Ratings (S&P Global ratings, 2022). Moreover, a study of conducted by Smaoui and Nechi (2017) analyzing relation between sukuk issuance and economic growth including all sukuk issuing countries over the years of 1995-2005 argues that sukuk increases financial inclusion, therefore positively affecting economic growth (Ghlamallah, Alexakis, Dowling and Piepenbrink, 2021).

Sukuk is not only issued by Islamic financing institutions but also conventional institutions and governments as well as several Islamic financing providers, due to its attractiveness in a diversified portfolio, according to a study conducted by Godlewski et al. (2013) comparing bond portfolios with and without Sukuk. Furthermore, in the development of the Sukuk structure to become a mirroring alternative to conventional banking, scholars and President Usmani of the Shari'ah Council (AAOIFI) have been concerned that Islamic principles will be

diminished in the process. The understanding of this argument concludes that the gap between conventional bonds and sukuk can only be closed to an extent.

The advantages of sukuk include the predictability of the repayment ratings based on the agreement contracts and principles thus reducing risk, though market value of assets and creditworthiness also influence these measures. This is due to sukuk's relation to specific items, e.g., projects, services or assets. The disadvantages are the lack of efficient risk measures of sukuk: only sukuk musharakah can be traded in the secondary market and the negative effect in the bond market when sukuk are issued (Klein et al., 2018). In contrast, conventional bonds heavily rely on issuers' creditworthiness and are debt obligated. Credit ratings for both are conducted by international credit rating frameworks e.g., Fitch Ratings, S&P Ratings, etc. (Godlewski et al., 2013).

The first European country to issue a Shari'ah compliant alternative to bonds was Germany, with a 5-year sukuk worth €100 million in 2004. While it has a large Muslim population in Western Europe, the customer base for Shari'ah compliant banking services offered by German banks was limited to investors in the GCC countries, thus the first European sukuk issues were limited to the Middle East. In the recent years, Frankfurt-based branches of Gulf state banks have expanded a selection of Islamic financial services to a German customer base (Harrison and Ibrahim, 2016).

4.1.3 Takaful

Takaful can be defined as an Islamic insurance and mutual funds alternative to conventional insurance and mutual funds based on shared responsibility and assurance whereby individual loss is shared between participants (Ghlamallah et al, 2021). The takaful industry operates primarily in the Muslim countries; however it has also been spread to Asian and Western countries with a large Muslim population over the last two decades. Malaysia and the GCC countries are leading in the takaful markets with Malaysia having the first takaful

insurance company (Hassan, 2019). Although the concept has been proven to have existed 1,400 years ago, the takaful industry is relatively new considering the size and development of the conventional insurance industry; its growth has been impressive (Alam et al., 2017). The Islamic finance industry is expected to grow by 10-12% in 2021 with the global pandemic in 2020 slowing down the previously estimated growth of the industry, while the total takaful industry growth is estimated to be 5-10% by 2022 according to S&P Global Ratings (2022). This growth can be understood to be the result of growing demand for conventional insurance alternatives by Muslims adhering to Shari'ah compliant solutions.

The common models of takaful funds offered by Islamic financing are the profit-loss sharing contract Mudarabah and the fee-based contract Wakalah. In the mudarabah model a detailed contract containing term of distribution and takaful period is made between a takaful operator and participant with two accounts for a clear division of takaful funds to mutually insure and enable risk-sharing between all participants in the fund pool (Kettell, 2011). Takaful funds are collections of risk premiums and investment premiums divided into risk funds and investment funds. In the occurance of a quantified loss, participants are compensated from the risk funds, however if the loss occurs in the investment fund it is borne by the participant only as takaful operator solely contributes with labor of generating profits. In the case of insufficient amount in the risk pool, n interest-free benevolent loan (qard hassan) is an option with repayment when the risk pool is again profitable. Once the takaful has reached maturity, the capital remaining in the risk fund following compensation payments, is distributed between participants with a ratio agreed upon by the participants (Wahab, Lewis and Hassan, 2007; Billah, 2019).

Wakalah model, similar to the mudarabah model, is composed of a risk fund and investment fund. The difference lies in the fee payments which are either paid as part of the total premium or from the investment fund. The takaful operator receives a fee from participants for the service of managing the funds. Another difference is also the distribution of the remaining capital of takaful

funds which is either kept in the funds, a contingency is reserved while rest is distributed amongst participants or lastly, the remainder after contingency reserve is distributed between participants including the takaful operator upon agreement. Takaful fund based on the wakalah model is preferred by scholars due to the unclear distribution of takaful surplus in the mudarabah model, according to Alam et al. (2017).

Moreover, takaful insurance, just like traditional insurance, can be divided into family insurance and general insurance. Family takaful insurance allows participants to save, to invest and payment of benefits to heirs in occurance of unexpected death within the maturity as mutual financial assistance is part of the insurance also in the form of injury and disablement (Billah, 2019). Common takaful family insurances are individual family insurance plans, mortgage and health takaful plans. The general takaful insurance is simply defined as a short-term mutual guaranteed agreement between the participants to compensate in occurance of a loss or damage from unforeseen accidents on assets. Fire takaful insurance is an example of general takaful (Alam et al, 2017; Wahab et al., 2007).

Some of the challenges faced in the takaful industry as argued by Alam et al. (2017) include the ongoing development to improve the takaful industry as it is deemed to be fairly new for which policies ensuring Sharia'h compliancy have yet to be fully defined. Furthermore, lack of multiple rating firms beside the International Islamic Rating Agency (IIRA) and Moody, adds to the challenges of gaining the confidence of participants and shareholders in the takaful industry. An additional challenge argued by Alam et al. (2017) worth mentioning is the lack of talented resource in the takaful industry despite takaful specialization courses due to not many universities offering these high demand courses.

To summarize, Takaful funds and insurance act as an alternative to conventional insurance with many similarities. The differences lay in the

element of interest in traditional insurance as it is based on commercial factors subject to governmental law, while Takaful is based on mutual cooperating, risk-sharing and subject to both Shari'ah and governmental law. Takaful wakalah is the most preferred due to its specified capital surplus distribution at maturity of agreement. Based on the elements and principles of takaful it can be concluded that its primary operation aim is social responsibility and then profit.

5 Islamic finance in Europe, Asia and GCC

5.1 Germany and UK

Islamic finance is not exclusive to the Muslim world. Germany, which has a large Muslim population in Western Europe also offers Islamic financial alternatives and Islamic bank franchises are established in the country. Similarly, the UK also has a large Muslim population with Islamic banking services available. There are several European countries where Islamic banking and financial services operate; however this research is limited to Germany and UK as the leading western countries in Islamic finance. Germany was the first country in western Europe to issue the popular Islamic financial instrument considered an Islamic Bond, Sukuk, in 2004 (Harrison and Ibrahim, 2016). Most of the sukuk was issued to Bahrain, UAE while a smaller percentage was issued to investors in France and Germany (di Mauro et al., 2013).

The first Islamic bank in Germany was KT Bank, successfully combining the Shari'ah principles of Islamic banking and compliance with German regulations according to Catak and Arslan (2020). KT bank was introduced to Germany in 2015 as a branch of the Turkish Kuveyt Türk participation bank, as a result of many years of laying groundwork for this to become reality (KT bank, 2020). According to Catak and Arslan (2020) Islamic banks with a diverse customer portfolio should take advantage of the opportunities to offer products to German customers by increasing their market share. Furthermore, Islamic banking in Germany, despite its operational success, needs to gain more trust from Muslim customers who might not have enough knowledge of the products in Islamic

banking. Moreover, a digital Islamic bank ‘Insha’ was launched 2018 in Germany by a Bahrain-based Al Barakah Banking Group with the aim of offering basic financial tools such as bank management and money transfer with product expansions to be added in the future (Vizcaino & Hardcastle, 2018). This was also Europe’s first interest-free digital banking service. An interesting observation has been the involvement of Turkish banks in the development of Islamic banking industry in Germany with the impact of Germany’s large Turkish population. The digital banking service is owned by Al Barakah Turk which is part of the Bahraini Al Barakah banking group (Catak and Arslan, 2020). Islamic institutions had previously attempted to cooperate with Germany’s Federal Financial Supervisory Authority (BaFin); however there were limitations to product offerings due to lack of full banking licensing. This issue was followed up by BaFin by giving a conference on Islamic banking and Shari’ah compliancy (di Mauro et al., 2013).

From a governance point of view, conventional banks generally follow the rules of Germany while Islamic banking follow Islamic Law, Shari’ah, which can be a challenge for the success of Islamic banks expanding their product offerings. Furthermore, German banks, and several countries, offer Islamic windows, a term used for Islamic financial products offered by conventional banks. These windows fulfill the demand for Islamic financing for the Muslim population who would like an alternative to conventional financing within their primary bank while simplifying the implementation of Islamic finance industry regarding regulations. Islamic windows also increase the familiarity of Islamic financial products to the advantage of establishing Islamic banks.

While Germany is a latecomer in the Islamic banking Industry, the UK has been leading in the western Islamic finance industry, according to reports by TheCityUK from 2015 and 2022. These state that Islamic finance in the U.K includes not only 5 Islamic banks and Islamic windows in conventional banks, but it also includes education in Islamic finance taught in professional institutions and universities. Moreover, Islamic sukuk issuance also happen through the London Stock Exchange. In 2021, the assets of Islamic banks and

institutions offering financial services in the U.K industry totalled to £7.5 billion, with an increase of £3 billion from 2014. In 2003 the governor of the Bank of England mentioned in a speech that he wished for a better understanding of Islamic finance to fit within the existing legal framework, as he claimed some of the characteristics of Islamic finance products resemble conventional banking. This is evidence, supported by the findings of Catak and Arslan (2020), stating that the London Metal Exchange in the 1980's was the beginning of Islamic financial transactions, in the early existence of Islamic finance in the U.K. Though the legal frameworks and financial frameworks of the U.K together with the Shari'ah principles of Islamic Finance have been functioning efficiently, some of the challenges arise from a diversity of opinions. According to Azmat, Skully and Brown (2015) Qatar banned the concept of Islamic windows practiced by many conventional banks in 2011. However several Islamic banks are accepting of this practice so long Shari'ah compliancy framework allows it.

With Germany and UK having a similar governance structure, specifically for conventional banking, they are paving the way for more countries see the benefit of their practices, to contribute to the growing Islamic financial industry and to establish Islamic banks in addition to Islamic windows. Even with the similarities in banking operations and legal frameworks, Islamic banking develops at different pace in the case of Germany and the UK. Volk and Pudelko argue that the determining factors are demand, supply and regulatory conditions. Domestic demand by the Muslim population and business shape the development and increase of Islamic financial services. In addition to the demand, the supply of Islamic banking products can also determine the development. The advantage of the UK in the faster speed of Islamic banking industry development compared to Germany, is the demand from the Muslim population and the supply of financial education of Islamic banking products offered. The importance of the latter is proven by the results of survey on the familiarity of Islamic banking products in Germany collected by Catak and Arslan (2020) showing that the familiarity is minimal. Another significant factor is societal attitude associated with Muslims and their religious practices in European countries. The UK embraces all cultures and religions present in their

society, contrary to Germany where Islamic practices are criticized. This could be a reason German financial institutions primarily offer Islamic products to Islamic banks and investors in GCC countries instead of German investors and Islamic banks (Volk and Pudelko, 2010).

5.2 Malaysia, Saudi Arabia and UAE

Malaysia and the GCC countries are dominating the Islamic finance industry. Malaysia was the first country in the Muslim world to establish an Islamic financial institution after the first failed modern Islamic bank, *Mit Ghamr* in Egypt. At the time, Malaysia provided Muslims with the Pilgrims Fund Board financial services to assist their savings process for pilgrimage which is a pillar Muslims are strongly passionate to complete. This was a popular product to the Muslim population in Malaysia. The first islamic bank in Malaysia *Bank Islam Malaysia Berhad* was established in 1983, following the establishment of Islamic banks in the Middle Eastern countries, including *Dubai Islamic Bank* established in 1975 in the United Arab Emirates. The financial products of Malaysian Islamic banks have also attracted Muslim customers making up half of the overall customers (Alam et al., 2017). Conventional banks and Islamic banks operate alongside each other in Malaysia with strong legal Islamic finance frameworks and cooperation with the Central bank of Malaysia. With 13 foreign conventional banks, nine Malaysian banks and 17 Islamic banks, Malaysia provides options for its diverse population that is approximately 50% Muslim (Ramlan and Adnan, 2016). Similarly, Saudi Arabia and the UAE also practice the dual-banking system though Islamic banks in Saudi Arabia make up most of the banking assets. *Dubai Islamic Bank* was the first bank in the UAE in 1975 as the one of the only two Islamic banks in the Gulf Region following *Kuwait Finance House*. The GCC countries are considered to have the most developed islamic financial system consisting of efficiently developed Islamic interbank money market, Islamic securities and insurance markets while operating with a dual-banking system. The conventional banks also operate with Islamic windows to grow their share in the islamic financial industry with less cost than a full-fledged Islamic bank (Grassa and Gazdar, 2014). The

global financial crisis left a significant impact in the financial market, resulting in performance research on Islamic banking in comparison with conventional banking to analyse the difference in impact. According to several studies on Islamic banks in Malaysia, Saudi Arabia and UAE with dual-banking system, results show that Islamic banks were more resilient due to Shari'ah compliant practices, liquidity of assets etc., however conventional banks were more profitable after the crisis (Ahmed, 2010; Baber, 2018). A counterargument is given by Bourkhis and Nabi (2014) stating that a result of their study on the matter shows no significant difference in the performance of Islamic banks and conventional banks due to findings that Islamic banks are no longer adhering to all the Shari'ah principles of Islamic banking operation.

Moreover, Malaysia, Saudi Arabia and UAE are not immune from the issues of Islamic banking concerning Shari'ah and governance in the three countries. Governance in Saudi Arabia is primarily influence by Islamic law, this limits their financial sector in terms of growing their financial services. An example of this is the ruling of women opening a bank account only with the permission of their spouse or guardian, while an Islamic banking service for women is offered by Dubai Islamic Bank. Shari'ah principles and Islamic finance terminology are specified to each country with common Shari'ah principles between the countries (Alam et al, 2017). The Islamic financial institutions are governed by Islamic law, regulatory bodies and Shari'ah Supervisory Boards with Islamic scholars that provide support in determining the Shari'ah compliancy of the services and products (Hassan, Sohail and Munshi, 2022). One of the regulatory bodies is the General Council for Islamic Banks and Financial Institutions (CIBAFI) founded to represent Islamic financial institutions globally with the objectives of supporting its members in areas of common challenges and improve their cooperation (Alam et al., 2017). Based on this, the regulatory bodies might be developing more efficient frameworks to tackle the challenges of scholarly views on Islamic rulings differing in Malaysia and Gulf countries creating a gap in the uniformity of innovating Islamic financial products and existing product ranges while challenging the Shari'ah compliancy of operation (Ibrahim, 2015).

In 1983 when Malaysia’s first Islamic bank was established, there were limitations with the coexistence of conventional banks due to inability to so purchase or trade financial instruments including interest. This raised a liquidity risk concern from the government of Malaysia, which provided a solution by passing the Government Investment Act enabling issuance of interest-free instruments by Islamic banks (Khorshid, 2004). In 2012, Malaysia, Saudi Arabia and the UAE were the leading Sukuk issuing markets with Saudi Arabia and UAE contributing approximately 12,7% of the global sukuk issuance; combined while Malaysia they contributed 74% (di Mauro, 2013). The study also showed result of Saudi Arabia and the UAE leading in the Islamic insurance industry in the GCC region contributing 94%. The determining factors in the success and growth of the mentioned countries in the Islamic banking industry are the dominance the Islamic banks have in the domestic finance industry compared to conventional banks. Moreover, the various Islamic products and financial services combined with the development of efficient Shari’ah supervisory boards and legal frameworks to ensure efficient regulations for the dual-banking system all contributed to the performance of Islamic banks in all three countries (Khorshid, 2004).

6 Risk management in Islamic Finance

Risk management is a crucial tool for preventing risks as they are measured. Risk can be classified as core risks, referring to essential risks a business is willing to bear and manage for the purpose of earning the profit generate as well as its comparative advantage. Examples of core risks can be risks in relation to a firm’s sale, supply and consumer behaviours which are taken into consideration by the firm though these core risks are subject to each business. On the other hand, non-core risks are risks exposed to business which can be minimized or avoided as it does not directly affect a firms profit generation. Though risks are subjective, some inherent core risks that can be found in banks or firms can include liquidity risks, market risks etc. which is not subject to how a business is defined. The definition of core and non-core risks can be summarised as risks businesses are willing to bear and risks that is not

essential therefore can be minimized. In Islamic banking is based on profit-loss sharing therefore both core and non-core risks are considering to be accepted as the ultimate aim is to efficiently generate profits as result of effort. Interestingly, according to Ayoub (2014) interest rates affect Islamic banking in relation to e.g., 'markup rates' despite its interest-free operation. He argues that interest rates primarily influence banks by affecting assets and liabilities, also understood as their earnings and economic value. In the following subchapter, the findings or risks and risk management will be further discussed.

6.1 Conventional banking and Islamic Banking

Considering the growth in the Islamic financial industry and continuous development of Shari'ah compliant products similar to conventional products there is room for improvement in risk management. Efficient risk management tools can spare banks and companies from potential risks. While the conventional finance industry has developed efficient risk management frameworks to reduce risks, the Islamic finance industry still needs to improve. In conventional financing the risk is borne by the borrower on unequal terms whereas Islamic finance's principle heavily highlights risk-sharing to all parts through contracts clearly defined and agreed upon. In other words, both customer and financier become partners in Islamic finance. There have been discussions on how 'islamic' Islamic finance actually is considering the rise in financial innovations structured to attempt mirroring conventional financing. According to findings by Khan (2010) some Islamic alternatives to conventional banks have been proven to not follow Shar'iah correctly due to their conventional-like structuring, creating doubt and differences in opinions between scholars. Furthermore, it has been proven in Khan's (2010) study that some Islamic banks charge a higher fee as there is high demand for the services which on the other hand makes conventional financing a cheaper option, though Muslims prefer Shari'ah compliant financing.

Islamic Finance is subject to Shari'ah compliancy and different types of contracts all adhering to the rules of Shari'ah. As a result, structures and rulings

have been set which also restricts how much risk management can be developed. As a result of the various opinions, the content of some contracts can be evaluated as valid or invalid depending on scholars and Shar'iah supervisory boards in different countries (Mohd Noor, Mohd. Shafiai and Ismail, 2019). Furthermore, risks of Islamic banks can be found to be higher than those of conventional institutions due to the limitations of risk management (Ghlamallah et al., 2021).

Some risks are exclusive to Islamic finance, such as the risk-sharing principle and contracts for different types of services that is an important part of Islamic finance. Risk-sharing allows both parties of the agreement to share loss and profit build on trust of effort from both parties. Though entrepreneurship is encouraged, and profit is the aim, loss can occur due to entrepreneurs' lack of business skills, lack of specialists to manage efficient partnership in generating profits of the shared partnership, or unawareness of regulations. According to a study by Warninder, Ekaputra and Rohkim (2019) comparing the impact of mudarabah and musharakah financing on Islamic Banking, musharakah financing can affect Islamic banking positively by reducing the credit risk. In contrast, musharakah financing in Malaysia, India and GCC countries is argued to increase credit risk as the profit-loss sharing market grows (Misman, 2012; Abusharbeh, 2014; Grassa, 2012).

Moreover, information asymmetry is an apparent risk area within Islamic financing as contracts such as mudarabah (profit-sharing) is based on trust in the other party to contribute with efforts that generate profit while loss is borne by the bank who invested in the business venture. If entrepreneurs are not transparent in the information surrounding revenue, expenses and estimates of the business venture it can results in risks of loss to the bank. Furthermore, moral hazard and adverse selection can be results of or linked with information asymmetry. Adverse selection refers to the effects of information asymmetry before the transaction while moral hazard refers to the effects of information asymmetry after the transaction. Islamic banks are more prone to moral hazard compared to conventional banks due to the structure of the contractual

agreements of lending and borrowing. With conventional banking, a fixed amount is paid by borrower on a monthly basis, therefore not subject to the activities and profitability of the borrower so long debt can be paid (Kettell, 2011). On the contrary, Islamic banks operational profits are subject to profitability of the borrowers' venture as profit is viewed as investment from which profit and loss is shared (Warninda et al., 2019).

A rather opposite argument is given by Aljifri and Khandelwaal (2013) discussing that Shari'ah supervisory board minimizes information asymmetry in Islamic banking as the board need to approve of the entrepreneur and business venture. They also argue that a management team is involved in these contracts to ensure profit is generated and monitoring purposes for the efficiency of the business venture.

The recent growth and popularity in the sukuk market also comes with risks that stem from the regulatory framework of sukuk. The laws governing conventional finance differ from the laws Islamic finance adheres to being Islamic law of Shari'ah. In addition, this difference in regulations further implicate the operation of Islamic finance in various countries. In relation to sukuk, asset securitization regulation needs to be more defined as conventional securitization, however the same regulations do not fit the Shari'ah principles required to be met by sukuk. In other words, conventional securitization can include assets with pork, alcohol, interest and gambling items and is therefore not compatible with sukuk regulation (Alam et al., 2017: 416). Alam et al. further discussed the disadvantage of liquidity enhancement limitations in Islamic finance due to interest-free loans while conventional financing receives this, and credit enhancing, as a result of interest-based loans. Moreover, Khan (2010) argues that difference in opinions amongst scholars creates the existing constraint on asset securitization. He finds that scholars in Malaysia have approved corporate account receivables, known as *Islamic Private Debt Securities* (IPDS) as Shari'ah approved while scholars in Pakistan, India and Iran consider this a sale of debt instead of tangible asset, and therefore not Shari'ah compliant.

According to both Khan (2010) and Alam et al. (2017) the validity of transfer of assets in case of bankruptcy or insolvency of originator is a concern, one also raised by rating agencies. In an example case presented by Howladar (2009), *East Cameron* (originator of sukuk) won a bankruptcy case resulting in sukuk holders not receiving the assets as the transaction was considered a secured loan. This example sums up the sukuk rating concerns of rating agencies as they see no significant evidence of the transfer validity of assets in sukuk transactions, leaving opportunities for originators to keep ownership of assets. Considering these issues, efficient bankruptcy and insolvency laws could reduce the risks borne by sukuk holders to protect them against a similar case as the *East Cameron* example. In addition to regulation differences, asset securitization and bankruptcy issues related to sukuk, taxation is an additional issue due to the involvement of tangible assets and the presence of conventional tax systems. When the assets are sold, possible taxation follows which could cause high tax risk. According to Alam et al. (2017: 417) this issue is significant challenges within the sukuk industry.

Similarly, the takaful industry faces challenges of risk. With Shari'ah compliancy and scholarly opinions being an important factor of the success of Islamic financing, it creates room for differences of opinions. This results in Islamic financing practices allowed in some countries while they are prohibited in other countries with respect to scholarly opinions. For example, Takaful surplus is allowed in Malaysia and prohibited in GCC countries (Salman, 2014). The takaful industry, specifically takaful operators are prone to credit risk and liquidity risks. Risk management should be efficient to protect operators from running out of funds to pay for claims and efficient investment management to generate return and offer interest-free loan for customers in case of liquidity issues (Aris and Tapsir, 2012). Moreover, takaful is a form of insurance whereby participants seek protection and support with future risk in takaful operators, therefore efficient risk management results in a good reputation necessary for participants to trust and confide in the takaful industry. Shari'ah principles include trust and moral responsibility which, if followed correctly, can help prevent reputational risks (Salman, 2014). Risk in sukuk and takaful can be

reduced via the understanding that differences of opinions surrounding Shari'ah compliancy affects the overall performance of Islamic finance industry.

Liquidity ratio is a concern and area of high importance in the banking sector. Liquidity ratio is measured in various ways with the aim of balancing outflow and inflow of deposit. In a study conducted by Khan, Bhatti and Siddique (2008) the liquidity to asset ratio of Islamic banks in Pakistan was examined and the results showed that profitability is strongly connected with liquid assets to total assets ratio with high ratio as a positive result. Moreover, quick ratio is another measure of how quickly banks can turn their assets into cash for repayment of short-term debt purposes, representing a bank's weakness or strength (Masood and Javaria, 2018). For Islamic banks, liquidity is not a common problem as most financial offerings are equity-based, and the operational profit is generated through profit-sharing, though liquidity ratios can vary from bank to bank. However, a lack of proper management tools to face liquidity risks should be addressed to prevent bankruptcy. Though these findings explain the role of liquidity, the performance measures can determine if a bank's profitability and its position to withstand potential crises. Return on investment (ROI) is a performance measurement tool which can calculate the profit ratio before tax by net income divided by total assets according to Bashir (2003). Masood and Javaria (2018) further argue that results of a study on Nigerian banks showed liquidity and debt structure, among others, to be determinants of a bank's efficiency.

6.2 Global financial crises effect on the finance industry

The global financial crisis in 2008 took a toll on the overall economy. Many studies have since been conducted analysing the effect it had on conventional banks and Islamic banks. More specifically, an interesting research area has been the minimal effects of the financial crisis on Islamic banks as the structure differs from traditional banking. According to Eid and Asutay (2019) the optimism surrounding the resilience of the Islamic financial industry has directed the focus away from the underlying issues of Islamic finance innovations

deviating from Islamic principles in attempts to mimic conventional finance institutions. These are the same principles that in practice assist in the reduction of crisis effects. Baber (2018) argues that Islamic banks are less cost efficient, have poor risk management and lower profitability compared to conventional banks, despite the resilience shown during and after the financial crisis. Islamic banks also experienced the effects of the financial crisis such as inflation, profitability decreasing and Islamic investment being affected the most due to the illiquid assets (e.g., real estate, private equity).

The years after the financial crisis were difficult for banks and the economy in managing the effects of the crisis and implementing strategies to prevent such in the future. For Islamic banks, the crisis affected their profitability; however their growth of capital in the years before the crisis protected them (Eid and Asutay, 2019). According to Baber (2019), conventional banks performed better post crisis while Islamic banks' profitability suffered while Islamic banks performed better pre crisis and during the crisis. This argument can be supported by an analysis conducted by the International Monetary Fund (IMF). The global financial crisis in 2008 can be illustrated as seen in figure 3 below.

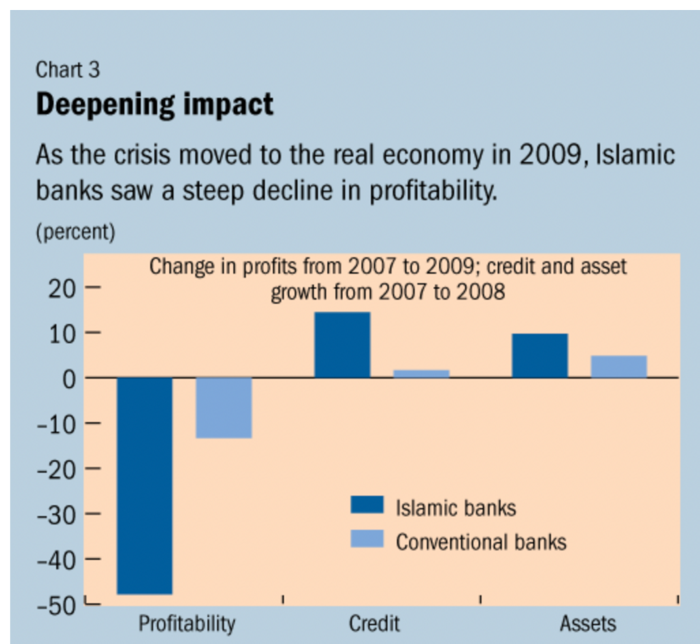

Figure 3: Comparison of conventional and Islamic bank post GFC (IMF, 2010)

Figure 3 illustrates the decline in profitability that Islamic banks experienced post crisis while conventional banks suffered less by comparison. Moreover, credit and assets were preforming better compared with conventional banks. One of the main discussions surrounding the performance of Islamic banking and finance in general is the close mimicking of conventional structures, which negatively impacts the expected resilience and growth Islamic banks could achieve. This is also argued by Bourkhis and Nabi (2013) whose study found no difference in performance for Islamic and conventional institutions during the crisis as a result of lack of adhering to Islamic principles. Furthermore, the differences of opinions regarding Islamic financial services followed by Islamic finance institution in various countries contribute to poor performance. Though there is an Islamic Financial Services Board (IFSB) established in 2002 to develop regulatory standards to be applied to all Islamic institutions globally, its broad and general guidelines still leave gaps in risk management (Alam et al., 2017). With the lack of synchronised practices and opinions combined with financial innovations, the possibility for Islamic financial institutions to drift away from Shari'ah principles is present.

A study conducted by Beck et al. (2013) on the effect of the global financial crisis on Islamic and conventional banks from around the world showed that performance of Islamic banks differed depending on their size and cross-country locations compared to conventional banks. They also argue that the empirical data analysis showed many insignificant differences between the models of Islamic banking and conventional banking. A similar study conducted by Rosman et al. (2014) with Islamic banks in Asia and Middle East concluded that bank management was efficient amid crises.

Many factors can affect the global financial crises as the global economy is intertwined, as shown by the effects of the crisis starting in the USA in 2007, impacting both conventional and Islamic financing despite the different structures. Political situations can also impact global finance as seen in history and in the current ongoing war between Russia and Ukraine. Though literature and analysis are currently limited on Islamic banks' reaction to this, a study

conducted by Belkhir, M., Grira, J., Hassan, M. Kabir & Soumaré, I. (2019) including observations on several banks from 1999 to 2013, has found that conventional banks are more affected by the political risks compared to Islamic Institutions. The ongoing conflict in Russia and Ukraine has also been found to have slowed the progress of achieving of the United Nations Sustainable Development Goals by 2030 (Bin-Nashwan, S.A., Hassan, M.K. and Muneeza, A. 2022). Current studies conducted concern the ongoing conflicts effect on European countries and the USA, therefore Muslim countries where majority of Islamic banks operate are not the main considered research are reflecting the lack of relevant literature.

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7 Sustainability of Islamic finance

Sustainable finance has a been a topic discussed by many experts in accordance with the United Nations Sustainable Development Goals (SDGs) to be met by 2030. Sustainable finance essentially refers to conscious investment taking environment, social and governance (ESG) into consideration to contribute to a more long-term economic growth. In the efforts to transform the world more ethically, improve the climate and reduce effects of financial crisis, sustainable finance sets a framework for a sustainable economy. In relation to this, ethical banking and investment have become rather a rather popular practice, as also seen in Islamic finance. Since the global financial crisis, Islamic finance has often been referred to as ethical and sustainable. According to Saidi (2009) some researchers argue that Islamic banking represents ethical banking, whereas other research argues that Islamic banking has been

marketed as ethical as a form of exploitation of the popularity of ethical banking. According to the principles of Shari'ah, Islamic banking involves investments, transactions and products that take social improvement and economic development into considerations. Furthermore, ethical banking includes the awareness and decision-making on what investments to invest in, similar to Islamic banking as transparency in transaction in the form of contracts are made (Iqbal, 1997). Moreover, Islamic banking has shown its financial sustainability through its performance in the times of crisis and incredible continuous growth rate (Scott, 2007). Hamidi and Worthington (2021) conducted a study on sustainable Islamic banks using a quadruple bottom line (QBL) framework which is an extension of a conventional triple bottom line (TBL) framework originally developed by John Elkington. The QBL framework consists of people, planet, prosperity and prophet factors that, when applied to an analysis, can suggest which areas indicating sustainability performance. The prophet factor was an added extension to the TBL framework to represent Shari'ah compliancy of Islamic banks. The studies found that most of the Islamic banks included in the study, were less sustainable in the people and planet factor while prosperity and prophet factors show more sustainability. When comparing these findings with the arguments of Islamic banking as more sustainable than conventional banking, it can be concluded that there is room for efficient sustainable finance frameworks in Islamic finance though it is notable that sustainable practices are deeply rooted in the operations of Islamic financial institutions.

7.1 Corporate Social Responsibility

Corporate Social Responsibility (CSR) and business ethics have become an essential part of a bigger discussion in the business world. CSR is a business strategy that helps companies operate in a social, environmental and economical conscious manner by social accountability to themselves, stakeholders and society. CSR principles are divided in three areas: ethical, environmental and philanthropic responsibilities. CSR holds companies accountable and conscious of their operational impacts on the environment e.g.,

pollution, waste and emission. Companies also need to have zero tolerance for discrimination and inequality while improving employee satisfaction. Lastly, CSR also challenges companies to contribute positively to the society through their operation and transactions (Investopedia, 2022). From the perspective of in Islamic banking, CSR models are developed based on Shari'ah principles in accordance with the religious belief; however regulations, western CSR strategies and socio-economic issues in the Muslim countries have also shaped CSR in Islamic banks and financial institutions (Khan, 2013). Khan also argues that Islamic financial institutions are community-based. For example, Islamic financial institutions encourage entrepreneurship and investment in Shari'ah compliant investments that benefit the society and economic growth, excluding interest and factors seen as harmful to society. They also provide interest-free loans to ensure banking is available to even the needy in addition to giving donations and charity as Islam encourages.

Though Islam is the key factor in the CSR framework in the financial institutions, CSR framework is not the same in all the institutions as their country specific regulations and socio-economic concerns factors in play. Several studies have shown unsatisfactory CSR results from Islamic financial institutions as they are not transparent and vocal about their CSR to stakeholders compared to western financial institutions. However, according to a study conducted by Platonova, Asutay, Dixon and Mohammad (2018), transparency and disclosure of CSR in the GCC countries' Islamic financial institutions have shown a positive financial performance and the framework could benefit long-term performance. Furthermore, green sukuk is a form of sukuk aimed to promote projects that serve the purpose of protecting the environment and society by allocating the funds raised by green sukuk. By investing in climate friendly projects protecting the environment, CSR and sustainability are also encouraged. The GCC countries and Asia issue green sukuks, with Malaysia combining a guideline for the projects eligible to be labelled green sukuk (Ali and Jumat, 2021:274).

7.2 Sustainable development Goals

The United Nations has set Sustainable Development Goals (SDG's) estimated to be met by 2030 in e.g., environmental, societal and governmental areas. This applies also to sustainable finance. Some of the goals include ending poverty, equality, growing sustainable economic growth and more sustainable cities amongst the 17 goals (UN, n.d.). The UN's SDGs and Shari'ah principles have common focus areas such as sustainability, inclusion and socio-economic growth. Moreover, value-based banks are also favored as an opportunity to contribute to the reaching of these goals (Tok and Yesuf, 2022). In addition, the European Commission introduced new sustainable finance strategies to support the achievement of the UN's SDGs and a sustainable economy globally, further highlighting the importance of sustainable finance (European Commission, 2021). A study conducted by Tok and Yesuf (2022) show that value-based principles enhance sustainability, resilience and social impact of Islamic banks. The findings suggest that value-based activities and strategies in Islamic banking do in fact enhance their sustainability, social impact and resilience/ stability. Another point raised in the findings of Tok and Yesuf (2022) is the alignment of ethical, societal and entrepreneurship focus within value-based banking and Islamic banking. Value-based banking is defined as ethical banking with common characteristics of traditional banking however the primary focus is operating and providing services that positively impact the environment, social and economy before profitability. Similarly, Islamic banking principles concentrate on value-based banking and social responsibility as a means of growing their sustainable economy. Although Islamic banks follow the rules of Shari'ah and participate in Shari'ah compliant transactions, lack of social concern in Islamic banking activities has received criticism. Aliyu et al. (2017) argues that Islamic banks are leaning more towards increasing profitability than maintaining the socio-economic focus considering the importance of societal and environmental responsibility in Islam. Furthermore, Jan, Mata, Albinsson, Martins, Hassan & Mata (2021) studied the link between sustainability indicators in Islamic banking and SDG's suggesting that Islamic banking practices and instruments such as charity (Sadaqah), almsgiving (Zakat) and benevolent

loans (qard hassan) align with the efforts of the SDGs to fight poverty, end hunger, promote well-being and reduce inequalities. With religion heavily influencing Islamic banking and finance in general, the mentioned practices are likely to be met. Almsgiving is the third pillar in Islam, therefore an obligation to any Muslim to pay approximately 2.5% of savings (Yusfiarto, Setiawan, Nugrah, 2020). Secondly, Islamic banks offer short-term interest-free loans for people who might be experiencing financial difficulties; therefore this service aligns with the SDGs' goal of social inclusion and efforts to prevent poverty. Islam emphasis the spiritual benefits of giving charity as a result of helping the needy, contributing to the well-being of society and growth of a sustainable environment. The principles of Islam and rulings of Islamic finance align with the sustainable finance purpose which increases the probability of Islamic finance contributing to achieving sustainability in finance considering above explained elements.

8 Conclusion

The Islamic Finance Industry has become a popular industry for finance experts due to its impressive performance, resilience and interest-free instruments during the global financial crisis in 2008 compared to conventional finance industry though it was less profitable when recovering from the impact of the crisis. Malaysia and the GCC countries are leading in the industry also operating a dual-banking system. differentiating factors between conventional banking and Islamic banking is rulings Shari'ah prohibiting elements of interest, speculation, uncertainty and using risk-sharing approach as a replacement. By risk-sharing, a fair division of risk between lenders and borrowers is encouraged with contractual agreements including specification of transaction details for transparency. Entrepreneurship is also encouraged through participation contracts where the bank invests in and manage business ventures to generate profit or loss to be shared. Conventional banks in western countries have Islamic windows offering Islamic financial products while a few full-fledged Islamic banks exist in several countries, with Germany and UK leading in this area.

The research hypotheses suggesting that Islamic finance, specifically Islamic banking, lacks efficient risk management and Islamic Finance supporting the achievement of UN's SDG's to be met by 2030 with efficient risk management cannot be rejected, according to the findings in this thesis. Information asymmetry, moral hazard and lack of efficient management boards are risk areas where risk management needs improvement in Islamic financial institutions. Moreover, Shari'ah principles should be followed by Islamic financial institutions as the main governance with a Shari'ah supervisory board consisting of scholars. However opinions on Shari'ah compliancy vary depending on the scholars' Islamic school of thought. This has caused differences in the operation and financial products offered by institutions in other countries, which is yet another challenge faced by Islamic institutions paving way for more risks due to lack of uniformity affecting development of efficient risk management frameworks. Other areas of risk include profit-sharing contracts, where the bank invests in a business venture while the other participant provides his efforts to generate profit, therefore loss is ultimately borne by the bank.

The operation and Shari'ah principles of Islamic finance includes practices that promote CSR and sustainability as shown by findings in this paper. One interesting finding is the element of tabarru in Islamic banking contracts, involving donations in the form of almsgiving, consistent with the encouragement of charity. Islamic finance is therefore believed to operate in ways aligning the UN's SDG's supporting the achievement of the goals by 2030.

There are several areas within the broad topic of Islamic finance that can be suggested for further research. The recent global pandemic took a toll on many financial institutions as part of a more general economic negative shock. In addition to the pandemic, the world is yet again facing a recession as a result of the on-going conflict between Ukraine and Russia impacting all areas of the global economy, including primarily the financial sector and energy sector. Future research could look at the impact of the global pandemic in the finance industry. Another research area could be impact of the Russia-Ukraine conflict

on the Islamic finance industry compared to conventional industry in the Gulf region with focus on the energy sector.

References

Abidin, I. S. Z. & Haseeb, M. 2018. Malaysia-gcc bilateral trade, macroeconomic indicators and islamic finance linkages: a gravity model approach. *Academy of Accounting and Financial Studies journal, 22*, pp. 1-7. [Accessed 15 November 2022]

Abdel-Khaleq, A. Richardson, C. 2007. New horizons for Islamic securities: emerging trends in sukuk offerings. Chicago Journal of International Law 7 (2), 409–425.

Abdul Aris, Nooraslinda & Tapsir, Roszana & Talib, Mohammad. (2012). RISK AND RISK MANAGEMENT OF TAKAFUL INDUSTRY. JOURNAL OF GLOBAL BUSINESS AND ECONOMICS. 4. 29-39.

Abusharbeh, M.T., 2014. Credit risks and profitability of islamic banks: evidence from Indonesia. *World Review of Business Research*, 4 (3), pp. 136–147.

Ahmed, A. 2010. Global financial crisis: An Islamic finance perspective. *International Journal of Islamic and Middle Eastern Finance and Management,* 3 (4), pp. 306-320. Available at: <doi:10.1108/17538391011093252> [Accessed 25 September 2022]

Akkas, E. & Al Samman, H. 2022. Are Islamic financial institutions more resilient against the COVID-19 pandemic in the GCC countries? *International journal of Islamic and Middle Eastern Finance and Management*, 15 (2), pp. 331-358. Available at: <doi:10.1108/IMEFM-07-2020-0378> [Accessed 28 October 2022]

Al Rahahleh, N., Ishaq Bhatti, M. & Najuna Misman, F. 2019. Developments in Risk Management in Islamic Finance: A Review. *Journal of Risk and Financial Management,* 12 (1), p. 37. Available at: <doi:10.3390/jrfm12010037> [Accessed 9 November 2022]

Alam, N. Gupta, L and Shanmugram, B. 2017. *Islamic Finance*. Springer International Publishing

Aliyu, S., Hassan, M. K., Mohd Yusof, R. & Naiimi, N. 2017. Islamic Banking Sustainability: A Review of Literature and Directions for Future Research. *Emerging Markets Finance & Trade*, 53 (2), pp. 440-470. Available at: <doi:10.1080/1540496X.2016.1262761> [Accessed on 5 October 2022]

Aljifri, Khaled and Kumar Khandelwal, Sunil. 2013. Financial Contracts in Conventional and Islamic Financial Institutions: An Agency Theory Perspective. *Review of Business & Finance Studies*, 4 (2) pp. 79-88, Available at: <https://ssrn.com/abstract=2263337> [Accessed 23 September 2022]

Asutay, M. & Othman, J. 2020. Alternative measures for predicting financial distress in the case of Malaysian Islamic banks: Assessing the impact of global financial crisis. *Journal of Islamic Accounting and Business Research, 11*(9), pp. 1827-1845. Available at: <doi:10.1108/JIABR-12-2019-0223> [Accessed 15 October 2022]

Ayoub, S 2014, Derivatives in Islamic Finance : Examining the Market Risk Management Framework, Edinburgh University Press, Edinburgh.

Ayub, M. & Khan, M. F. 2021. EVOLVING MONETARY ECONOMICS IN ISLAMIC PERSPECTIVE. *Journal of Islamic Monetary Economics and Finance, 7*(2), pp. 317-340. Available at: <doi:10.21098/jimf.v7i2.1372> [Accessed 17 October 2022]

Azmat, S., Skully, M. & Brown, K. 2015. Can Islamic banking ever become Islamic? PacificBasin Finance Journal, 34, pp.253-272

Baber, H. 2018 “How crisis-proof is Islamic Finance?,” *Qualitative Research in Financial Markets*, 10(4), pp. 415–426. Available at: <https://doi.org/10.1108/qrfm-12-2017-0123> [Accessed 28 November 2022]

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. Available at: <https://doi.org/10.1108/QRFM-12-2017-0123> [Accessed 24 October 2022]

Bashir, Abdel-Hameed. 2003. Determinants of profitability in Islamic banks: Some evidence from the Middle East. Islamic Economic Studies. 11. Available at: <https://doi.org/10.3366/edinburgh/9780748621002.003.0008> [Accessed 23 November 2022]

Beck, T., Demirgüç-Kunt, A. & Merrouche, O. 2013. Islamic vs. conventional banking: Business model, efficiency and stability. *Journal of banking & finance, 37*(2), pp. 433-447.Available at: <doi:10.1016/j.jbankfin.2012.09.016> [Accessed 5 November 2022]

Belkhir, M., Grira, J., Hassan, M. Kabir & Soumaré, I. (2019) “Islamic banks and political risk: International evidence,” The Quarterly Review of Economics and Finance, 74, pp. 39–55. Available at: <https://doi.org/10.1016/j.qref.2018.04.006.> [Accessed: 21 February 2023].

Ben Mimoun, M. 2019. Islamic banking and real performances in a dual banking system: Evidence from Saudi Arabia. *International journal of Islamic and Middle Eastern finance and management, 12*(3), pp. 426-447. Available at: <https://doi.org/10.1108/IMEFM-07-2018-0223> [Accessed 20 November 2022]

Billah, M. M. 2019. Islamic Insurance Products: Exploring Takaful Principles, Instruments and Structures. Available at: <https://doi.org/10.1007/978-3-030-17681-5> [Accessed 2 November 2022]

Bin-Nashwan, S.A., Hassan, M.K. and Muneeza, A. (2022) Russia–Ukraine conflict: 2030 agenda for sdgs hangs in the balance, International Journal of Ethics and Systems. Emerald Publishing Limited. Available at: <https://doi.org/10.1108/ijoes-06-2022-0136> [Accessed: 21 February , 2023]

Bhatti, M. and Bhatti, I. 2009. Development in legal issues of corporate governance in Islamic finance. *Journal of Economic and Administrative Sciences* 25(1): 67–91.

Bourkhis, K., Nabi, M.S., 2013. Islamic and conventional banks' soundness during the 2007–2008 financial crisis. Rev. Financ. Econ. 22, 68–77, Available at: <http://dx.doi.org/ 10.1016/j.rfe.2013.01.001> [Accessed 12 October 2022]

Catak, C. and Arslan, S.Y. 2020. "Does Islamic banking have a future in Germany survey on German Muslims perceptions," *Pressacademia*, 7(2), pp. 187–197. Available at: <https://doi.org/10.17261/pressacademia.2020.1213> [Accessed 20 November 2022]

Dar, Humayon & Presley, John. 2001. Lack of Profit Loss Sharing in Islamic Banking: Management and Control Imbalances. International Journal of Islamic Financial Services. 2.

di Mauro, F., Caristi, P., Couderc, S., Di Maria, A., Ho, L., Grewal, B. K., Masciantonio, S., Ongena, S. & Zaher, S. 2013. *Islamic Finance in Europe*, *European Central Bank*. [Online]. Available at: <https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp146.pdf> [Accessed 13 November 2022]

Domat, C. 2020. Islamic Finance: Just for Muslim-majority Nations? Global Finance Magazine. [Online]. Available at: <https://www.gfmag.com/topics/blogs/islamic-finance-just-muslim-majority-nations> [Accessed 29 September 2022]

Dr. Khattab, M. 2015. *Quran.com.* [Online]. Available at: <https://quran.com/2?startingVerse=219> [Accessed 15 November 2022]

Efendic, V. 2020. *Islamic Finance Practices: Experiences from Southeastern Europe*. Available at: <https://doi.org/10.1007/978-3-030-34420-7> [Accessed 13 November 2022]

Eid, W. K. & Asutay, M. 2019. *Mapping the Risks and Risk Management Practices in Islamic Banking*.

Elzahi Saaid Ali, A., Ali, K. M. & Khaleequzzaman, M. 2020. *Enhancing Financial Inclusion Through Islamic Finance, Volume I*.

European Commission. 2021. Strategy for financing the transition to a sustainable economy, Finance. [Online]. Available at: <https://finance.ec.europa.eu/publications/strategy-financing-transition-sustainable-economy_en> [Accessed on 12 October 2022]

Fernando, J. 2022. Corporate Social Responsibility (CSR) explained with examples, Investopedia. Investopedia. Available at: <https://www.investopedia.com/terms/c/corp-social-responsibility.asp> [Accessed on 12 October 2022]

Ghlamallah, E. Alexakis, C. Dowling, M and Piepenbrink, A. 2021. The topics of Islamic economics and finance research, International Review of Economics &Amp; Finance, 75, pp. 145–160. Available at: <https://doi.org/10.1016/j.iref.2021.04.006> [Accessed 28 September 2022]

Godlewski, C. J., Turk-Ariss, R. & Weill, L. 2013. Sukuk vs. conventional bonds: A stock market perspective. Journal of Comparative Economics, 41(3), pp. 745-761. Available at: <https://doi.org/10.1016/j.jce.2013.02.006> [Accessed 26 October November 2022]

Grassa, R., 2012. Islamic banks' income structure and risk: evidence from GCC countries. Account. Res. J. 25, 227–241, Available at: <http://dx.doi.org/10.1108/10309611211290185> [Accessed 2 October 2022]

Grassa, R. & Gazdar, K. 2014. Financial development and economic growth in GCC countries: A comparative study between Islamic and conventional finance. *International journal of social economics, 41*(6), pp. 493-514.Available at: <https://doi.org/10.1108/IJSE-12-2012-0232> [Accessed 13 September 2022]

Hamdi, B., Abdouli, M., Ferhi, A., Aloui, M. & Hammami, S. 2019. The Stability of Islamic and Conventional Banks in the MENA Region Countries During the 2007–2012 Financial Crisis. *Journal of the knowledge economy, 10*(1), pp. 365-379. Available at: <https://doi.org/10.1007/s13132-017-0456-2> [Accessed 25 October 2022]

Hamidi, M. L. & Worthington, A. C. 2021. Islamic banking sustainability: Theory and evidence using a novel quadruple bottom line framework. International journal of bank marketing, 39(5), pp. 751-767. Available at: <https://doi.org/10.1108/IJBM-06-2020-0345> [Accessed 22 October 2022]

Harrison, T. & Ibrahim, E. 2016. *Islamic Finance*. Cham: Springer International Publishing.

Hasan. 2020. *Leading Issues in Islamic Economics and Finance: Critical Evaluations*. Springer Singapore.

Hassan, A., Sohail, M. S. & Munshi, M. M. R. 2022. Sharīʿah governance and agency dynamics of Islamic banking operations in the Kingdom of Saudi Arabia. *ISRA international journal of Islamic finance, 14*(1), pp. 89-106. Available at: <https://doi.org/10.1108/IJIF-12-2020-0252> [Accessed 15 November 2022]

Hassan, H. A. 2019. Takaful models: Origin, progression and future. Journal of Islamic marketing, 11(6), pp. 1801-1819.Available at: <https://doi.org/10.1108/JIMA-04-2018-0078> [Accessed 15 October 2022]

Hassan, M. K. & Aliyu, S. 2018. A contemporary survey of islamic banking literature. Journal of financial stability, 34, pp. 12-43. Available at: <doi:10.1016/j.jfs.2017.11.00> [Accessed 5 September 2022]

Hassan, M. K., Sarac, M., Khan, A. 2021. *Islamic Finance and Sustainable Development: A Sustainable Economic Framework for Muslim and Non-Muslim Countries*. Springer International Publishing

Howladar, K., 2009. The future of sukuk: Substance over form? [Online] Available at: <www.cpifinancial.net> [Accessed 12 October 2022]

I. Tabash, M. & Anagreh, S. 2017. Do Islamic banks contribute to growth of the economy? Evidence from United Arab Emirates (UAE). *Banks and bank systems, 12*(1), pp. 113-118.Available at: <https://doi.org/10.21511/bbs.12(1-1).2017.03> [Accessed 15 November 2022]

Ibrahim, M. H. 2015. Issues in Islamic banking and finance: Islamic banks, Shari'ah-compliant investment and sukuk. *Pacific-Basin finance journal, 34*, pp. 185-191.Available at: <https://doi.org/10.1016/j.pacfin.2015.06.002> [Accessed 4 November 2022]

IMF. 2017. Islamic Finance and The Role of IMF. [Online]. Available at: <https://www.imf.org/external/themes/islamicfinance/> [Accessed 29 September 2022]

IMF. 2010. *IMF survey: Islamic Banks: More Resilient to Crisis, IMF*. [Online]. Available at: <https://www.imf.org/en/News/Articles/2015/09/28/04/53/sores100410a> [Accessed 29 November 2022]

INCEKARA, A., & USTAOGLU, M. 2017. Balancing Islamic and Conventional Banking for Economic Growth: Empirical Evidence from Emerging Economies. Available at: <https://doi.org/10.1007/978-3-319-59554-2> [Accessed 15 November 2022]

Iqbal, Z. 1997. 'Islamic financial system', *Finance and Development*, June 1997: 42 – 45.

Ishaq Bhatti, M. and Mansoor Khan, M. 2008. "Interest-free banking and finance", Managerial Finance, 34(9). Available at: <https://doi.org/10.1108/mf.2008.00934iaa.001> [Accessed 15 September 2022]

Islahi, A.A. 2018, "History of Islamic Banking and Finance", Intellectual Discourse, vol. 26, pp. 403-429.

Jaafar, A.I., Muneeza, A. and Khusairi, H.M. 2018. *Wahed wise*, *Journal*. [Online]. Available at: <https://journal.wahedinvest.com/introduction-to-salam-or-forward-sale/> [Accessed 15 November 2022]

Jan, A., Mata, M.N., Albinsson, P.A., Martins, J.M., Hassan, R.B. & Mata, P.N. 2021. Alignment of Islamic Banking Sustainability Indicators with Sustainable Development Goals: Policy Recommendations for Addressing the COVID-19 Pandemic. *Sustainability*, *13*, 2607. Available at: <https://doi.org/10.3390/su13052607> [Accessed 28 October 2022]

Kader, H. A., Adams, M., & Hardwick, P. 2010. The cost efficiency of takaful insurance companies. The Geneva Papers on Risk and Insurance, 35(1), 161–181.

Kader, H. A., Adams, M., Hardwick, P., & Kwon, W. J. 2014. Cost efficiency and board composition under different takaful insurance business models. International Review of Financial Analysis, 32, 60–70.

Kahf, M. (2004). Islamic banks: The rise of a new power alliance of wealth and Shari`a scholarship. In C.M. Henry & R. Wilson (Eds.), *The politics of Islamic Finance*. Edinburgh: Edinburgh University Press.

Kettell, B. 2011. *Introduction to Islamic Banking and Finance*, John Wiley & Sons, Incorporated, Hoboken. Available at: <https://doi.org/10.1002/9781118467299> [Accessed 3 September 2022]

Khan, A., Rizvi, S. A. R., Ali, M. & Haroon, O. 2021. A survey of Islamic finance research – Influences and influencers. *Pacific-Basin finance journal, 69*, p. 101437. Available at: <https://doi.org/10.1016/j.pacfin.2020.101437> [Accessed 2 September 2022]

Khan, F. 2010. How ‘Islamic’ is Islamic Banking? *Journal of economic behavior & organization, 76*(3), pp. 805-820. Available at: <https://doi.org/10.1016/j.jebo.2010.09.015> [Accessed 15 November 2022]

Khan, F.M. 2019. “Consumer behaviour, consumption planning and objectives of sharīʿah,” *Palgrave Studies in Islamic Banking, Finance, and Economics*, pp. 125–157. Available at: <https://doi.org/10.1007/978-3-030-12793-0_4> [Accessed 15 September 2022]

Khorshid, A. 2004. The development of Islamic banking and insurance in Saudi Arabia: A case study” Islamic Insurance, pp. 144–166. Available at: <https://doi.org/10.4324/9780203458280-12> [Accessed 9 November 2022]

Kitamura, H. 2021. Policymakers’ Logic on Islamic Banking: Islamic Banking as an Ethno-Political Tool in Malaysia. Journal of current Southeast Asian affairs, 40(2), pp. 245-265. Available at: <https://doi.org/10.1177/1868103420972406> [Accessed 15 November 2022]

Klein, P.-O., Weill, L., & Godlewski, C. J. 2018. How sukuk shapes firm performance. The World Economy, 41(3), 699–722.

KT Bank AG. 2020. *KT Bank*. [Online]. Available at: <https://www.kt-bank.de/en/aboutus/kt-bank/> [Accessed 15 November 2022]

Lone, F.A. 2016. “Islamic banks and financial institutions,” *Islamic Banks and Financial Institutions* [Preprint]. Available at: <https://doi.org/10.1057/9781137515667> [Accessed 6 October 2022]

Masood, O, & Javaria, K 2018, Risk Management Implementation and Solutions for Islamic Banking and Finance, Cambridge Scholars Publishing, Newcastle-upon-Tyne

Maikabara, A.A. (2019) “Why Islamic banks focus more on debt-based financing than equity-based which is more Shariah compliant?,” SSRN Electronic Journal

[Preprint]. Available at: <https://doi.org/10.2139/ssrn.3492835> [Accessed 15 October 2022]

Misman, F.N., 2012. Financing structures, bank specific variables and credit risk: malaysian Islamic banks. J. Bus. Policy Res. 7, 102–114.

Mohd Noor, N. S., Mohd. Shafiai, M. H. & Ismail, A. G. 2019. The derivation of Shariah risk in Islamic finance: A theoretical approach. Journal of Islamic accounting and business research, 10(5), pp. 663-678. Available at: <https://doi.org/10.1108/JIABR-08-2017-0112> [Accessed 12 October 2022]

Naz, S. A & Gulzar, S. 2020. Impact of Islamic Finance on Economic Growth: An Empirical Analysis of Muslim Countries. Singapore Economic Review, 67(1), p. 245. Available at: <https://doi.org/10.1142/S0217590819420062> [Accessed 15 November 2022]

OECD. 2020. "How Islamic finance contributes to achieving the Sustainable Development Goals", *OECD Development Policy Papers*, No. 30, OECD Publishing, Paris. Available at: <https://doi.org/10.1787/ac1480ca-en> [Accessed 18 November 2022]

Platonova, E., Asutay, M., Dixon, R. & Mohammad, S. 2018. The Impact of Corporate Social Responsibility Disclosure on Financial Performance: Evidence from the GCC Islamic Banking Sector. Journal of business ethics, 151(2), pp. 451-471. Available at: <https://doi.org/10.1007/s10551-016-3229-0> [Accessed 9 November 2022]

Qureshi, A., Rizwan, S. M., Ahmad, G. & Ashraf, D. (2022) Russia–Ukraine war and systemic risk: Who is taking the heat? Finance Research Letters, 48, p. 103036. Available at: <https://doi.org/10.1016/j.frl.2022.103036> [Accessed: 21 February, 2023].

Rahahleh, N.A., Bhatti, M.I. & Misman, F.N. 2019, "Developments in Risk Management in Islamic Finance: A Review", *Journal of Risk and Financial*

Management, vol. 12, no. 1, pp. 37. Available at: <https://doi.org/10.3390/jrfm12010037> [Accessed 15 November 2022]

Ramlan, H. and Adnan, M.S. 2016. “The profitability of Islamic and conventional bank: Case study in Malaysia,” Procedia Economics and Finance, 35, pp. 359–367. Available at: <https://doi.org/10.1016/s2212-5671(16)00044-7> [Accessed 18 November]

Rashid, A., Hassan, M. K. & Shah, M. A. R. 2020. On the role of Islamic and conventional banks in the monetary policy transmission in Malaysia: Do size and liquidity matter? *Research in international business and finance, 52*, p. 101123. Available at: <https://doi.org/10.1016/j.ribaf.2019.101123> [Accessed 16 November 2022]

Rosman, R., Wahab, N. A. & Zainol, Z. 2014. Efficiency of Islamic banks during the financial crisis: An analysis of Middle Eastern and Asian countries. *Pacific-Basin finance journal, 28*, pp. 76-90. Available at: <https://doi.org/10.1016/j.pacfin.2013.11.001> [Accessed 15 November 2022]

Saidi, T. 2009. Relationship between ethical and Islamic banking systems and its business management implications. South African journal of business management, 40(1), pp. 43-49. Available at: <doi:10.4102/sajbm.v40i1.534> [Accessed 20 October 2022]

Salman, A. S. 2014. “Contemporary issues in Takaful (Islamic Insurance),” *Asian Social Science*, 10(22). Available at: <https://doi.org/10.5539/ass.v10n22p210> [Accessed 29 October 2022]

S&P Global. N.d. Islamic Finance Outlook 2022 edition. [Online]. Available at: <https://www.spglobal.com/ratings/en/research/pdf-articles/islamic-financeislamic%20finance%20outlook-2022-28102022v1.pdf> [Accessed 25 October 2022]

Scott, J. C. 2007. *Unveiling Islamic banking and financing*. [online] Available at: <http://mycomputered.cc.> [Accessed 15 November 2022]

Smaoui, H., & Nechi, S. 2017. Does sukuk market development spur economic growth? Research in International Business and Finance, 41, 136–147.

Ali, S. N. & Jumat, Z. H. 2021. *Islamic Finance and Circular Economy*. Springer Singapore.

TheCityUK. 2015. *The UK: Leading Western Centre for Islamic Finance*. TheCityUK Islamic Finance Market Advisory Group. [Online]. Available at: <www.islamicfinance.com/wp-content/uploads/2015/11/TheCityUK-Islamic-Finance-2015-report.pdf> [Accessed 15 November 2022]

TheCityUK. 2022. *The UK remains the leading western hub for Islamic Finance*, *TheCityUK*.[Online]. Available at: <https://www.thecityuk.com/news/the-uk-remains-the-leading-western-hub-for-islamic-finance/> [Accessed 15 November 2022]

Tok, E. & Yesuf, A.J. 2022. Embedding Value-Based Principles in the Culture of Islamic Banks to Enhance Their Sustainability, Resilience, and Social Impact. *Sustainability*,*14*, 916. Available at: <https://doi.org/10.3390/su14020916> [Accessed 18 November 2022]

Trabelsi, M. A. 2011. The impact of the financial crisis on the global economy: Can the Islamic financial system help? The journal of risk finance, 12(1), pp. 15-25. Available at: <https://doi.org/10.1108/15265941111100049> [Accessed 25 September 2022]

UN. (N.d.) *The 17 goals | sustainable development*, *United Nations*. United Nations. [Online]. Available at: <https://sdgs.un.org/goals> [Accessed 15 November 2022]

Usmani, M. T. 2002. *An introduction to Islamic finance*. [Online] Available at: <https://muftitaqiusmani.com/books/english/pdf/An_Introduction%20_to_Islamic_Finance.pdf> [Accessed on 30 November 2022]

Vizcaino, B. 2018. *Al Baraka launches Islamic Digital Bank in Germany*, *Reuters*. Edited by E. Hardcastle. Thomson Reuters. [Online]. Available at: <https://www.reuters.com/article/islamic-finance-germany-idINL8N1WG09O> [Accessed 15 November 2022]

Volk, S. and Pudelko, M. 2010. Challenges and opportunities for Islamic retail banking in the European context: Lessons to be learnt from a British-German comparison. *Journal of Financial Services Marketing* 15(3): 191–202. Available at: <https://doi.org/10.1057/fsm.2010.16> [Accessed 12 November 2022]

Wahab, A. R. A., Lewis, M. K. & Hassan, M. Kabir. 2007. Islamic Takaful: Business Models, Shari'ah Concerns, and Proposed Solutions. Thunderbird International Business Review, 49(3), 371-396. Available at: <https://doi.org10.1002/tie.20148> [Accessed 30 October 2022]

Warninda, T.D., Ekaputra, I.A. and Rokhim, R. 2019. "Do Mudarabah and Musharakah Financing Impact Islamic Bank credit risk differently?," *Research in International Business and Finance*, 49, pp. 166–175. Available at: <https://doi.org/10.1016/j.ribaf.2019.03.002> [Accessed 24 October 2022]

Wasiuzzaman, S. & Nair Gunasegavan, U. 2013. Comparative study of the performance of Islamic and conventional banks: The case of Malaysia. *Humanomics, 29*(1), pp. 43-60. Available at: <https://doi.org/10.1108/08288661311299312> [Accessed 15 September 2022]

Watkins, J. S. Islamic Finance and Global Capitalism: An Alternative to the Market Economy. Available at: <https://doi.org/10.1007/978-3-030-59840-2> [Accessed 29 September 2022]

Wilson, R. 14 March 2008. Islamic finance in Europe. *Islamic Finance News, 5*(10).

World Bank Group. 6. November 2017. Islamic Finance. [Online] Available at: <https://www.worldbank.org/en/topic/financialsector/brief/islamic-finance#4> [Accessed 15 September 2022]

Yusfiarto, R., Setiawan, A. & Nugraha, S.S. 2020. Literacy and Intention to Pay Zakat. *Int. J. Zakat*, *5*, 15–27.Available at: <https://doi.org/10.37706/ijaz.v5i1.221> [Accessed 19 October 2022]

Zulkhibri, M. and Ali, Abdulmanapt. 2019. *Islamic finance, risk-sharing and macroeconomic stability*. 1st edn. Cham: Palgrave Macmillan.