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THE IMPACT OF SHARIAH COMPLIANCE ON THE FINANCIAL PERFORMANCE OF MALAYSIAN ISLAMIC BANKS: MODERATING EFFECT OF SHARIAH COMMITTEE

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DOCTOR OF PHILOSOPHY
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THE IMPACT OF SHARIAH COMPLIANCE ON THE FINANCIAL PERFORMANCE OF MALAYSIAN ISLAMIC BANKS: MODERATING EFFECT OF SHARIAH COMMITTEE

By

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ABSTRACT

The positioning of Islamic banks as economic or social entities has been prominently debated on a global scale as Islamic bank social practices are still being neglected following their current emphasis on financial performance. Hence, this study investigates the relationship between Shariah compliance and the financial performance of Malaysian Islamic banks, as well as the moderating effect of the effectiveness of the Shariah Committee. Six Shariah compliance indicators represent the independent variables of the study. Meanwhile, the study's dependent variable is financial performance proxied by Return on Assets (ROA) and Return on Equity (ROE). The study uses panel data analysis, whereby the annual reports of 16 Islamic banks in Malaysia were analysed over ten years from 2010 to 2019. Panel regression models consisting of random and fixed effects are incorporated for data evaluation. The study's findings show a significant influence of Shariah-compliant financing, Zakat, advertising and operational efficiency on financial performance represented by ROA. At the same time, the ROE model reports a significant influence of Zakat, advertising, non-performing financing and operational efficiency on the ROE of the banks. In addition, the effectiveness of the Shariah Committee moderates the influence of Shariah-compliant financing, Zakat, advertising, household financing and operational efficiency on the ROA of the banks. Further, the findings reveal that the Shariah Committee can moderate the influence of Zakat, advertising, non-performing financing and operational efficiency on the ROE of the banks. The study outcomes offer pivotal insights into effective Shariah committee roles in Malaysia, especially for the Shariah Advisory Council (SAC) of Bank Negara Malaysia (BNM) to implicitly optimise Islamic bank financial performance.

Keywords: financial Performance, Shariah committee, Shariah compliance, Islamic bank.

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ABSTRAK

Kedudukan bank-bank Islam sebagai entiti ekonomi atau sosial telah banyak diperdebatkan di peringkat global kerana amalan sosial bank-bank Islam masih diabaikan berikutan penekanan mereka kepada prestasi kewangan. Oleh yang demikian, kajian ini menyiasat hubungan antara pematuhan Shariah dan prestasi kewangan bank Islam di Malaysia serta mengkaji kesan penyederhanaan Jawatankuasa Shariah yang efektif. Pemboleh ubah tak bersandar dalam kajian diwakili oleh enam penunjuk kepatuhan Shariah. Manakala, pemboleh ubah bersandar kajian ialah prestasi kewangan yang diwakili oleh pulangan atas aset (ROA) dan pulangan atas ekuiti (ROE). Kajian ini menggunakan analisis data panel, di mana laporan tahunan 16 bank Islam di Malaysia dianalisis dalam tempoh sepuluh tahun iaitu dari tahun 2010 hingga 2019. Model regresi berganda dan hierarki yang terdiri daripada model kesan rawak dan model kesan tetap digunakan untuk menganalisis data. Dapatan kajian menunjukkan pembiayaan patuh Shariah, Zakat, pengiklanan dan kecekapan operasi mempunyai pengaruh yang signifikan terhadap prestasi kewangan yang diwakili oleh ROA. Manakala model ROE menunjukkan Zakat, pengiklanan, pembiayaan tidak berbayar dan kecekapan operasi mempunyai pengaruh yang signifikan terhadap ROE bank. Di samping itu, Jawatankuasa Shariah yang efektif didapati menyederhanakan pengaruh pembiayaan patuh Shariah, Zakat, pengiklanan, pembiayaan isi rumah dan kecekapan operasi terhadap ROA bank. Sementara itu, dapatan kajian juga menunjukkan bahawa Jawatankuasa Shariah mampu menyederhanakan pengaruh Zakat, pengiklanan, pembiayaan tidak berbayar dan kecekapan operasi terhadap ROE bank. Hasil kajian memberikan pemahaman penting tentang peranan Jawatankuasa Shariah yang efektif di Malaysia terutamanya kepada Majlis Penasihat Shariah Bank Negara Malaysia bagi meningkatkan prestasi kewangan bank Islam secara tidak langsung.

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Kata Kunci: prestasi kewangan, jawatankuasa Shariah, kepatuhan Shariah, bank Islam.

DECLARATION

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; and any editorial work, paid or unpaid, carried out by a third party is acknowledged.

LIST OF PUBLICATIONS

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Ali, M. A., Shuib, M. S., & Nor, A. M. (2023). Zakat as corporate social responsibility: How does it affect the financial performance of Islamic banks. *Jordan Journal of Business Administration, 19*(2), pp. ahead-of-print.

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LIST OF ABBREVIATIONS

AAOIFI	Accounting and Auditing Organisation for Islamic Financial Institutions
ADV	Advertising
BNM	Bank Negara Malaysia
CG	Corporate Governance
CSR	Corporate Social Responsibility
GCC	Gulf Corporation Council
HF	Household Financing
IDB	Islamic Development Bank
IFIs	Islamic Financial Institutions
LTH	Lembaga Tabung Haji
MENA	Middle East and North Africa
NPF	Non-performing Financing
OE	Operational Efficiency
PLS	Profit and Loss Sharing
ROA	Return on Asset
ROE	Return on Equity
SAC	Shariah Advisory Council
SC	Shariah Committee
SCF	Shariah-compliant Financing
SGPD	Shariah Governance Policy Document
UAE	United Arab Emirates
UK	United Kingdom
US	United States
ZKT	Zakat

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Islamic finance has rapidly advanced in global capital markets and banking systems. Financial performance, in terms of asset size of Islamic banks, has been growing steadily all over the world (Albaity et al., 2019). In fact, the financial performance of Islamic banks has been reported to have increased twice as fast as conventional counterparts (Alqahtani & Mayes, 2018). The global asset expansion of Islamic banking industries (from approximately USD 1.84 trillion in 2020) has resulted in the domestic market share growth of Islamic banks worldwide, including Malaysia (Islamic Financial Services Board, 2021). Malaysian Islamic banking sectors have established one of the global Islamic financial markets with high financial performance development on an annual basis. Based on Islamic Financial Services Board (2021), the Malaysian Islamic banking and finance sector was ranked top three in international Islamic banking assets (11.4%), after Iran (22.1%), and Saudi Arabia (28.5%) and first as the country for *Sukuk* (Islamic Bond) issuance (47.3%) in 2020 (see Figures 1.1 and 1.2).

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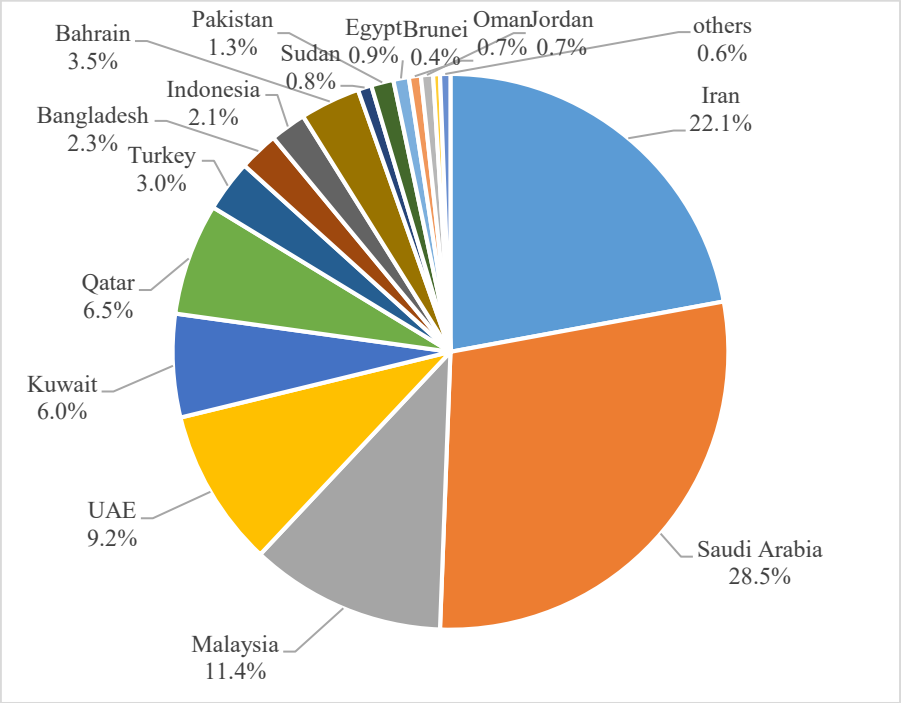

Figure 1.1
Share of Global Banking Asset 2020
Source: Islamic Financial Services Board, 2021

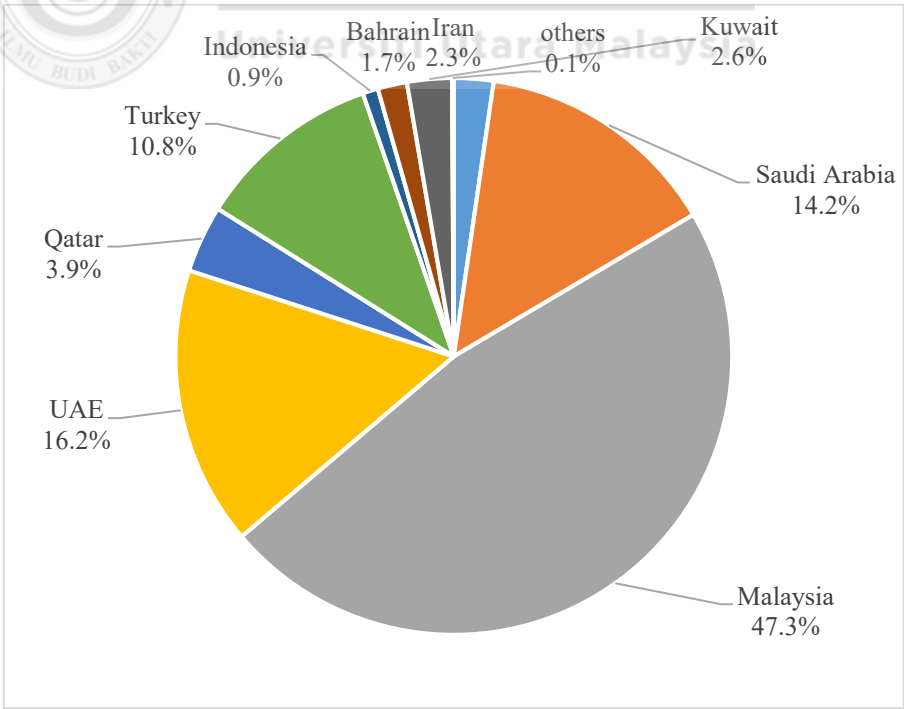

Figure 1.2
Percentage of Global Issuance of Sukuk 2020
Source: Islamic Financial Services Board, 2021

Islamic bank financial performance is perceivably impacted by the internal and external factors similar to conventional counterparts. Following past literature, the distinctive attributes and economic forces of banks involving liquidity, capital adequacy (Sufian & Kamarudin, 2015; Nasserinia et al., 2017), operational cost (Hadriche, 2015; Lee & Isa, 2017), bank size, equity financing (Sufian & Kamarudin, 2015; Chowdhury & Mohd Rasid, 2017), gross domestic product or GDP and inflation (Wasiuzzaman & Tarmizi, 2010; Mohammed & Muhammed, 2017) have substantially affected Islamic bank financial performance. As such, it is deemed pivotal for the bank management to stringently regulate the internal and external aspects of bank financial performance and fulfil stakeholders' anticipations.

Stakeholder group requirements should be met in the terms of financial and social performance. Islamic banks need to attain social and ethical goals beyond profit maximisation (Haron & Wan Azmi, 2009; Musa, Abd Sukor, Ismail, & Elias, 2020). From most Muslim stakeholders' perspectives, Islamic banks should uphold social accountability and Islamic principles among their consumers (Dusuki, 2008; Bella & Al-Fayoumi, 2016). The stakeholder theory asserts that businesses should not function for personal gains but include stakeholder advantages. Specifically, Islamic banks should emphasise stakeholder interests by incorporating their social goals into economic progress for high stakeholder interactions and financial performance. Notwithstanding, Islamic banks that fail to meet stakeholder needs might result in low support and economic sustainability and a negative reputation (Arshad, Othman & Othman, 2012).

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Shariah is the Islamic legal system derived from the religious principles of Islam, which are based on the teachings of Al-Quran and Al-Sunnah. Islamic banking practices and operations should adhere to Islamic teachings and doctrines or refers to Shariah compliance. It is regarded as the foundation of the Islamic banking. Shariah compliance acts as the most significant factor in selecting Islamic banks by customers (Abdul Rehman & Masood, 2012; Sayani & Miniaoui, 2013; Abdul Hadi & Muwazir, 2020) as well as good social accountability practices (Dusuki & Abdullah, 2007a; Haque, Osman & Ismail, 2009). Shariah compliance also assures the reliability of Islamic banks and stimulates stakeholders' confidence (Ullah, 2014). Therefore, the first priority of Islamic banks is to ensure that all their Islamic products and operations must be based on Shariah-compliant guidelines and free from unlawful elements which are prohibited by Islamic laws. Moreover, few prior studies have investigated the connection between Shariah compliance practices and organisational performance. It is proven that Islamic banks which comply to Shariah shown better financial performance (Ahmed & Khatun, 2013; Mollah & Zaman; 2015; Ullah & Khatam, 2018; Pepis & Jong, 2019).

Moreover, the overall goal of an Islamic economic system, of which Islamic banking and finance are a part of, is to realize the objective of Islamic law (*Maqasid Shariah*) which should manifest in the economy as enabling growth and justice (Siddiqi 2004; Chapra et al., 2008). Al-Ghazali (d.505AH/1111CE) elaborated that the main objective of the Shariah is to promote the welfare of all mankind, which lies in protecting their *din* (religion), their *nafs* (human life) their *aql* (mind) their *nasl* (lineage), and their *mal* (wealth). Whatever ensures the protection of these five serves *maslahah* (public interest) and is desirable. The core value of Islamic economic systems which refers to *Maqasid Shariah*, comprehends various aspect of human life and preserves *maslahah*

(Siddiqi, 2006). As such, Islamic banking development relies on the degree to which Islamic banks acknowledge *Maqasid Shariah* to actualise the outstanding economy upheld by social equality and justice for the community and general *maslahah* attainment (Laldin & Furqani, 2013). Islamic banks primarily recognise their obligations towards consumers, employees, shareholders, and communities apart from profit maximisation (Dusuki & Abdullah, 2007b).

The issue of *Maqasid Shariah* has been acknowledged as a central attention from the Malaysian government whereby the government emphasized on the promoting the elements of *Maqasid Shariah* in some aspects such as politics, health, law, education, culture and economics of the country. As Islamic banks act as the crucial financial sectors in the economic system of the country that lead to better economic growth (Hachicha & Amar 2015; Abd. Majid & Kassim, 2015), Islamic banks must realize *Maqasid Shariah* principles in their operations to develop a vibrant banking system, save the economy and to make sure the Islamic banks will return to the basics, ethics and morals which are closely related to the effective and efficient administration. Table 1.1 presents few latest news on the current issues of *Maqasid Shariah* in Malaysia.

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Table 1.1
Summary of News from Malaysian Newspaper

Date	Summary	Sources
February 11, 2015	Malaysia introduced the first Shariah index in an Islamic country in facilitating the nation toward *Maqasid Shariah* principle attainment.	The Star
April 18, 2016	*Maqasid Shariah* denotes one of the Islamic banking intricacies and objectives.	New Straits Time
October 27, 2017	*Maqasid Shariah* framework must be the foundation of Malaysian development.	Berita Harian
November 20, 2019	Islamic Bank must implement *Maqasid Shariah* principles.	Bernama
December 7, 2019	The various Islamic finance aspects associated with *Maqasid Shariah* require exploration to benefit the global population.	Berita Harian

Good corporate governance (CG) denotes another non-financial factor that substantially impacts bank financial performance (Belkhir 2009; Bukair & Abdul Rahman, 2015; Mori & Towo, 2017; Titova, 2016; Buallay, 2019a). Islamic banking practices that comply with *Maqasid Shariah* principles constitute distinctive attributes and CG structures. Islamic bank governance mechanisms differ from that of conventional counterparts. Particularly, such banks are governed by the Shariah governance framework to optimise the Islamic Financial Instituitions (IFIs) governance role. Shariah governance is considered as an integral to Islamic financial system stability. The institutionalisation of a sound Shariah governance framework strengthens public confidence in the aims, management and business operations of the Islamic financial institutions (BNM, 2019). The various Islamic bank Shariah governance structure attributes are regulated by exclusive boards: Shariah Supervisory Boards (SSB) or Shariah Committee (SC). The SC, a primary component of the IFIs Shariah governance structure to supervise Islamic banks through the governance and guidance

of local central bank, closely coordinates with Islamic banks regarding Shariah issues. The SC also serves to oversee and regulate the bank management and review banking operations, policies, and products to ensure its compliance with Islamic principles. Meanwhile, in Mohammed and Muhammad (2017b), the nature of SC roles is classified into two levels: (i) macro, which regards general harmonisation decisions at central banks, and (ii) micro, which emphasises internal bank concerns entailing product development, Zakat (alms) approval, and Shariah compliance certification issuance.

As a vital body that impacts Islamic bank performance (Rahman & Bukair, 2013; Mollah & Zaman 2015; Nomran, Haron & Hassan, 2018; Jabari & Muhamad, 2021; Khan & Zahid, 2020), SC could perform Shariah-relevant obligations to decide on operational activities that complement real Islamic bank objectives based on their expertise. In this vein, the SC efficiency in making decisions following Islamic principles to fulfil managers' and stakeholders' interests would elevate bank performance. As a result, the current study aimed to identify the link between Shariah compliance, SC effectiveness, and Malaysian Islamic bank financial performance.

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1.2 Problem Statement

Malaysia is one of the top countries in the world offering Islamic banking and finance products and services. With regards to the financial performance, Malaysian Islamic banks were ranked among the top financial instituitions in 2020 apart from primary international players such as Saudi Arabia, Iran, and the United Arab Emirates (UAE) in dominating the global shares of *Sukuk* issuance, Islamic funds, and banking assets (Islamic Financial Services Board, 2021) and reported higher ROA and ROA than conventional banks in 2019 (Islamic Financial Services Board, 2020). Prior studies

have proved that financial performance of Islamic banks worldwide including Malaysia Islamic banks affected by internal and external factors such as financial and economic factors (Wassiuzzaman & Ahmad Tarmizi, 2010; Zarrouk et al. 2016; Chowdhury & Mohd Rasid, 2017). Given the performance-based variances between both Islamic and conventional banks (Ahmad & Abdul Rahman, 2012; Wasiuzzaman & Gunasegavan, 2013; Sulaiman, Mohamad & Hashim, 2018), Islamic banks require a broader performance scope and more detailed decision-making information compared to their conventional counterparts owing to Shariah adherence factors. Hence, it is recommended by Zarrouk, Ben Jedidia and Moualhi (2016) that such institutions could prioritise and perform non-financial activities toward high organisational financial performance.

Islamic banks are established not only for socioeconomic purposes but also to promote Islamic values while protecting the needs of the Muslim society at large. Because of that, Islamic banks in their operations must conform to Shariah guidelines. Shariah covers all aspects of daily life, including individuals, family and society. Such compliance is necessary if Islamic banks were to attract Muslims to become their customers. A study by Dusuki (2008) revealed that stakeholders of Islamic banks expected that Islamic banks as an institution to prioritise social objectives and promote Islamic values towards their staffs, clients and the public as well as contribute to social welfare of the community. As emphasised by stakeholder theory, all stakeholders are interdependent (Freeman, 2010), thus, management of Islamic banks has a moral responsibility to operate in the interest of all their stakeholders by taking care of their main shareholders and the community.

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The practice of the stakeholder theory was to create awareness and responsibility that banks have towards both internal stakeholders and external stakeholders. Hence, the Islamic bank banks responsibility is not limited to the focus of increasing of annual revenues, but for the wellbeing of all stakeholders (Al-Shamali et al. 2013). Islamic banks are established to provide products, services and operation in protecting the needs of stakeholders especially Muslim society. The most Shariah compliance practices of Islamic banks is related to products which refers to Shariah-compliant financing to replace *riba*-oriented financing that are forbidden in Islam. Such Shariah-compliant financing contributes to the most of income of Malaysian Islamic banks (Zaini et al., 2018). Malaysian Islamic banks currently channel its financing to household sectors compared to corporate sectors whereby such financing could facilitate households to meet essential needs (Seho et al., 2021). Meanwhile, Islamic banks are currently focusing on Shariah compliance in management of Zakat in order to preserve the welfare of needy and poors. In terms of Shariah compliance in management and operations, Malaysian Islamic banks strive to reduce cost for operational efficiency and managing risk by reducing non-performing financing (Isaev & Masih, 2017). However, in terms of level of customer awareness on Malaysian Islamic banks products and features, prior studies indicated low level of customer awareness and need to consider for strategic marketing especially advertising activities (Ahmad & Al-Aidaros, 2017; Mahdzan & Zainuddin, 2017).

According to Dusuki and Bouheraoua (2011), *Maqasid Shariah* acts as the basis for determining whether particular Islamic banks are practicing Islamic principles. The Islamic banks social elements which include Shariah-compliant financing, Zakat, advertising, household financing, non-performing financing and operational efficiency

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following Imam Al-Ghazali's *Maqasid Shariah* framework were firstly presented by Mohammed, Abdul Razak and Md Taib (2008). This measurement was subsequently adapted in other empirical works (Mohammed & Md Taib, 2015; Mohammed, Md Tarique & Islam, 2015; Asutay & Harningtyas, 2015; Mohamed Ibrahim & Monim, 2016; Noordin & Hudaefi, 2019) to evaluate the Islamic bank social performance across nations. Thus, such evaluations could be adapted as an alternative approach for Shariah compliance in social measurement synchronisation rather than employing a conventional framework to assess the compliance of Islamic bank practices. On top of that, little consideration has been focused to critically examine the effects of this Islamic perspective approach of those elements on the financial performance of Islamic banks.

Despite a thorough examination of the Shariah compliance-financial performance link in other organisations, research on Malaysian Islamic banking remains lacking. Theoretically, such findings proved to be inconsistent and inconclusive. Specific studies highlighted that Shariah compliance practices positively impacted banking industry financial performance, particularly IFIs (Ahmed & Khatun, 2013; Mollah & Zaman; 2015; Lusyana & Sherif, 2017; Ullah & Khanam, 2018; Pepis & Jong, 2019). Conversely, other studies implied either an insignificant or negative Shariah compliance-financial performance connection (Nawaz, 2016; Ajili & Bouri, 2018a; Al-Sartawi, 2020; Khalil & Taktak, 2020) thus indicating knowledge gaps that require bridging post-literature review. Thus, this study aimed to incorporate the moderator to strengthen the association between shariah compliance and the financial performance following the aforementioned inconsistencies.

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Based on the resource dependency theory, the functions underpinning the CG framework generate unique organisational resources. Thus, good CG denotes one of the most crucial aspects of company performance evaluation (James & Joseph, 2015) and catalysing organisational investments in social activities that potentially elevate their financial performance (Kabir & Thai, 2017). As Islamic banks are governed by Shariah principles, SC plays a vital role in coordinating with Islamic banks regarding Shariah-related issues. Extensive research on the SC-financial performance connection (Grassa & Matoussi, 2014; Nomran et al., 2018; Buallay, 2019a; Aslam & Haron, 2020; Baklouti, 2020; Khan & Zahid 2020; Jabari & Muhamad, 2021) disclosed that SC explicitly impacted bank performance. Nevertheless, the aforementioned studies only highlighted the direct cause-effect correlation with little emphasis on the potential moderating effects of SC to justify the Shariah compliance impact on bank financial performance.

Mohamad, Muhamad Sori, Mohd Rashid (2016), Hussain, Hassan and Azhar (2016) and Mohammed and Muhammad (2017b) contested the SC autonomy following some arguments where SC might be prepared to accommodate the bank management in decision-making processes. Regardless, the SC appointment and renewal in Malaysia are BNM-regulated with the top IFIs management required to propose the candidates to BNM. The appointment basis remains concerning as the Board of Directors (BOD) can still suggest their favoured SC for their respective banks. As such, conflicts of interest might instigate circumstances where SC autonomy could be compromised following the control and authority exerted by BOD and the bank management for personal gains rather than integrating broader *Maqasiḍ Shariah* goals (Islamic Financial Services Board, 2018).

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An efficient SC would enhance acceptability among various stakeholders by regarding their interests in a balanced manner and incorporating the broader *Maqasiḍ Shariah* goals in each decision-making aspect. In this vein, SC substantially emphasises social accountability under *Maqasid Shariah* principles for improved financial performance. Inadequate Shariah supervision could negatively impact Islamic banks (Grassa, 2013) and instigate financial losses that may lower bank performance (Bakar, 2016). Therefore, this study aims to bridge the existing gaps by investigating how Shariah compliance and SC effectiveness could facilitate Malaysian Islamic banks to sustain their financial performance.

1.3 Research Questions

The following research questions are presented based on the aforementioned discussions:

i. Is there any significant relationship Shariah-compliant financing and the financial performance of Islamic banks in Malaysia?

ii. Is there any significant relationship between Zakat and the financial performance of Islamic banks in Malaysia?

iii. Is there any significant relationship between advertising and the financial performance of Islamic banks in Malaysia?

iv. Is there any significant relationship between household financing and the financial performance of Islamic banks in Malaysia?

v. Is there any significant relationship between non-performing financing and the financial performance of Islamic banks in Malaysia?

vi. Is there any significant relationship between operational efficiency and the financial performance of Islamic banks in Malaysia?

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vii. Does SC effectiveness moderate the relationship between Shariah compliance and the financial performance of Islamic banks in Malaysia?

1.4 Research Objectives

The following research objectives are developed and presented below to address the research questions:

i. To investigate the relationship between Shariah-compliant financing and the financial performance of Islamic banks in Malaysia.

ii. To investigate the relationship between Zakat and the financial performance of Islamic banks in Malaysia.

iii. To investigate the relationship between advertising and the financial performance of Islamic banks in Malaysia.

iv. To investigate the relationship between household financing and the financial performance of Islamic banks in Malaysia.

v. To investigate the relationship between non-performing financing and the financial performance of Islamic banks in Malaysia.

vi. To investigate the relationship between operational efficiency and the financial performance of Islamic banks in Malaysia.

vii. To investigate the moderating effects of SC effectiveness on the relationship between Shariah compliance and the financial performance of Islamic banks in Malaysia.

1.5 Scope of the Study

This study strived to assess the Shariah compliance impact on the financial performance of Malaysian Islamic banks and examine the Shariah compliance effect on the financial

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performance of Malaysian Islamic banks with SC effectiveness as the research moderator. The underlying study theories involve the stakeholder theory and resource dependency theory. The theories underpinning Shariah compliance and SC effectiveness anticipate higher Islamic bank financial performance.

Justifications for selecting Malaysia as the study foundation are due to several reasons. As approximately 60% of the local population (vast majority) are Muslims, Islamic banks must seriously manage such a potential market to deter market penetration by industrial competitors. In this regard, Malaysian Islamic banks (primary industry players) need to attract customers through optimal product and service values. Essentially, such institutions are required to emphasise stakeholders by meeting their needs and attaining the actual bank objective.

Leading IFIs that provide goods and services related to Islamic banking and finance included those in Saudi Arabia, Iran, and the United Arab Emirates (UAE), as well as Islamic banks in Malaysia. In terms of ROA and ROE, Malaysian Islamic banks outperformed conventional banks in 2019 (Islamic Financial Services Board, 2020) and controlled the global markets for Sukuk issuance, Islamic funds, and banking assets (Islamic Financial Services Board, 2021). Notably, Malaysia is also acknowledged as part of the outstanding international Islamic financial hub for the Islamic financial capital market (Thomson Reuters, 2018).

The accelerated growth of Malaysian Islamic banks necessitates accurate strategies toward increased and sustainable market shares. The current domestic market share of Malaysian Islamic banks, which is approximately 28.9% (Islamic Financial Services

Board, 2021). Notably, Islamic banking product and service loyalty in Malaysia does not merely encompass Muslims given the acceptance and preference of non-Muslims towards such products and services (Mohd Thas Thaker et al., 2019). Optimal approaches must be practised to complement customers' increasing awareness of the role of Islamic banks in offering improved social services and catalysing national economic progress.

Malaysia has pioneered the development of a global *Maqasid Shariah* index for IFIs (Zakaria, 2014). The BNM upholds and promotes *Maqasid Shariah* in every Islamic banking operation aspect through active deliberation and consultation by its Shariah Advisory Council (SAC). As a centralised referral body for IFIs, BNM has also introduced several relevant strategies toward realising *Maqasid Shariah* for Malaysian IFIs through their products and services.

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Moreover, financial performance indicators entail Return on Asset (ROA) and Return on Equity (ROE) given the application of accounting-based measurement proxies as dependent study variables. Meanwhile, the social Shariah compliance elements were assessed following *maslahah* of *Maqasid Shariah*; Shariah-compliant financing, Zakat, advertising, household financing, non-performing financing and operational efficiency as bank-specific independent variables. The SC effectiveness was applied as a moderating variable indicator.

This research employed the secondary data extracted from the annual reports of 16 (full-fledged and subsidiary) Islamic banks from 2010 to 2019, which is available from their websites. The study data were assessed using panel data analysis: an integration of

financial ratios and disclosure indices. This study only incorporated secondary data with additional information elicited from websites and other secondary data.

1.6 Definition of Key Terms

1.6.1 Corporate Social Responsibility (CSR)

Carroll (1979) denotes CSR as organisational social accountability constituting community members' economic, legal, ethical and discretionary (philanthropic) anticipations within a specific timeframe. In Islam, Dusuki and Abdullah (2007b), Ali Basah and Md Yusuf (2013), and Issalih et al. (2015), CSR implementations in Islamic establishments should comply with *Maqasid Shariah* and *maslahah* principles.

1.6.2 Shariah Compliance

Shariah compliance refers to Islamic banks' operations and activities that adhere to the rules and principles of Islamic law. According to Ahmed (2011), Shariah compliance relates to the legal and social norms are necessary in fulfilling *Maqasid Shariah* in financial operations and activities of Islamic banks.

1.6.3 Financial Performance

The financial performance of an organisation demonstrates the extent to which business entities manage current company resources. According to Mallin et al. (2014) ROA and ROE indicators are widely utilised to measure bank performance and sustainable growth.

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Return on assets (ROA) ratio: net profit divided by average total company assets (Cornett et al., 2016, Buallay, 2019b; Shakil et al., 2019, Baklouti, 2020; Jabari & Muhamad 2021; Tuan Ibrahim, Hashim & Mohamad Ariff, 2020).

Return on equity (ROE) ratio: net profit divided by average total company equity (Cornett, et al., 2016, Buallay, 2019b; Shakil et al., 2019, Baklouti, 2020; Jabari & Muhamad 2021; Tuan Ibrahim et al., 2020).

1.6.4 Shariah Committee Effectiveness

This study defines SC effectiveness as the degree to which organisational SC is perceivably skilful and knowledgeable in task performance.

1.7 Organisation of the Thesis

This study is organised into five chapters. Chapter One briefly discussed the study background, problem, questions, objectives and scope. Chapter Two reviewed relevant literature on Islamic banking and finance involving Malaysian Islamic banks, financial performance, CSR, CSR from Islamic point of view, Shariah compliance, and SC effectiveness. The two theories underpinning this research (stakeholder theory, resources dependency theory) were also duly outlined.

Meanwhile, Chapter Three elaborated on the theoretical framework and hypothesis development to examine the correlations among the research variables. Also, this chapter explains research methodology of the study encompassing research design, population of the study, data collection procedures, and variable measurements,

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Furthermore, this chapter highlighted the data analysis and statistical test types that were utilised.

Chapter Four analysed the study assessments and outcomes with discussions on the primary research results. Lastly, Chapter Five summarised the current study with elaborations on empirical contributions, limitations, and recommendations for further studies.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews past research on the key study variables. The first section provides an overview of Islamic banking. Literature reviews of financial performance are presented in Section 2.3, whereas Section 2.4 elaborates on CSR-and financial performance-oriented studies. Meanwhile, Section 2.5 justifies CSR from the Islamic viewpoint. Sections 2.6 and 2.7 offer explanations of independent variables and their correlation to financial performance and literature reviews of SC effectiveness as the moderator, respectively. Section 2.8 identifies gaps in the literature. The following section reviews the underlying and supporting study theories (Section 2.9). Lastly, Section 2.10 concludes the chapter.

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2.2 Overview of Islamic Banking

Conceptual Islamic banking developments and disciplines, which span nearly four decades, began in the late 1940s and catalysed the development of a model adopted in Middle Eastern nations within the next two decades to fulfil their aspiration of establishing local Islamic banks (Khan & Bhatti, 2008). Islamic banks were first established in the 1960s. For example, the first local Islamic savings bank was established within the Egyptian town of Mit Ghamar in 1963 (El-Hawary, Grais & Iqbal, 2004; Karasik, Wehrey & Strom, 2007). The services were deemed sufficient to meet community members' banking needs despite being banking-specific. Nevertheless, the banking operations proved to be only for short terms period as the Mit Ghamr Bank was wholly taken over by the government bank in the mid-1967s following political reasons.

The advent of Islamic banks, which began in the Middle East during the 1970s, subsequently expanded to Southeast Asian nations (Ahmad & Luo, 2010). The Islamic Development Bank (IDB) established in 1974 catalysed the development of other counterparts across multiple Muslim countries (Alharbi, 2015). Notably, the Dubai Islamic Bank was immediately established post-IDB in 1974. Three more Islamic banks began operating in 1979: Faisal Islamic Bank of Egypt, Faisal Islamic Bank of Sudan, Kuwait Finance House, and Bahrain Islamic Bank (Perry & Rehman, 2011; Rethel, 2011). Meanwhile, several Islamic banks (Qatar Islamic bank, Islamic bank Bangladesh limited, Bank Islam Malaysia Berhad, Al-Baraka Islamic Bank of Bahrain, ANZ, and Global Islamic Finance of United Kingdom (UK)) commenced business during the 1980s'. Pakistan, Iran, Sudan, Malaysia, and Bahrain also strived to implement big-scale Islamic banking in their respective countries throughout the 1980s. Notably, several conventional banks began presenting Islamic banking products and services within the next decade by operating distinct Islamic banking units and divisions.

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The growth and development of Islamic financial systems were mirrored by various nations that issued licenses to foreign banks, which enabled them to provide Islamic products and optimise Islamic financial operations. As early pioneers, the Central Bank of Kuwait (CBK) and BNM began granting licenses to foreign industry players. This novel financial structure effectively broadened the Islamic banking network at a national level and improved the Islamic financial instrument efficiency and performance. In Ahmad and Luo (2010), Islamic banking subsequently branched out to include potential markets in non-Muslim nations. This system has widened their horizon from Muslim to Western markets in European countries: Germany (Western Europe), Turkey (Southern Europe), and the United Kingdom (Northern Europe). To

date, there are about 527 Islamic banks operate worldwide comply with Islamic principles (ICD-Refinitiv, 2022).

Islamic banks indicate consecutive progress every year as part of the Islamic financial service sector. Regarding banking assets, current Islamic banking assets on a global scale (see Figure 2.1) reached USD 1.84 trillion in 2020 with Gulf Corporation Council (GCC) nations dominating as the largest domicile for Islamic banking assets (USD979.7 billion), followed by the Middle East and South Asia (USD499 billion), and Southeast Asia and Africa (USD299 billion) (See Figure 2.2). Meanwhile, Iran was ranked as one of the top nations holding the largest share of Islamic global banking assets (28.5%), followed by Saudi Arabia (22.1%), and Malaysia (11.4%).

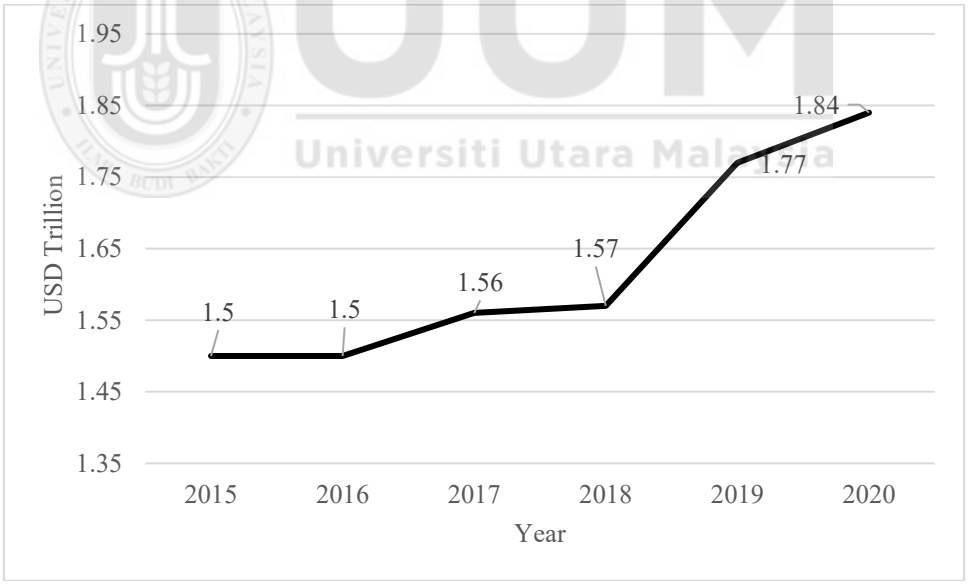

Figure 2.1
Growth of Global Islamic Banking Assets in the Period 2015-2020
Source: Islamic Financial Services Board, 2021

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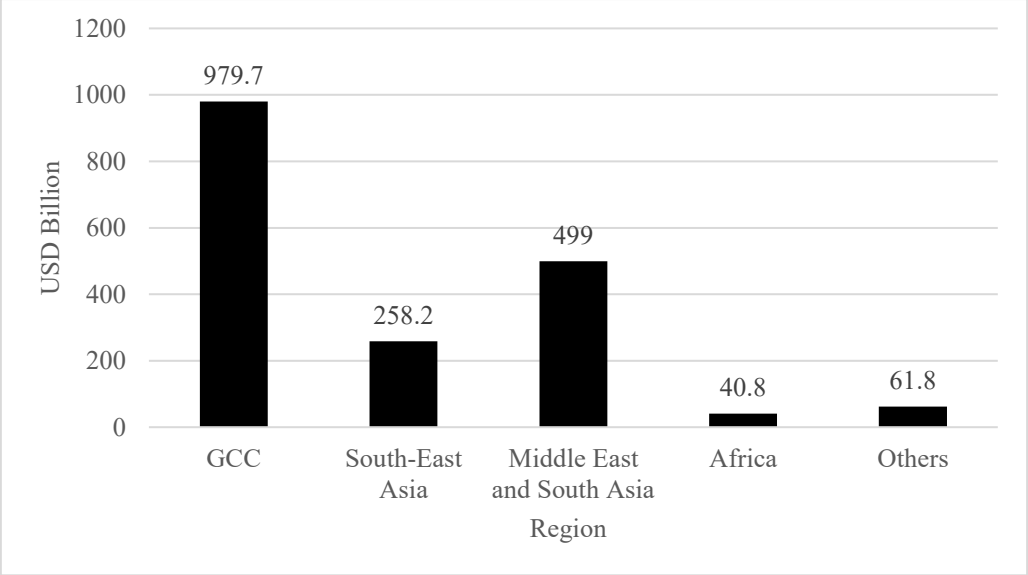

Figure 2.2
Global Banking Assets by Region
Source: Islamic Financial Services Board, 2021

Malaysian Islamic banking and finance sectors have palpably established a global Islamic financial market. Malaysia is currently acknowledged as an Islamic banking hub that significantly facilitates the growth of Islamic banking schemes worldwide (Ahmad & Luo, 2010; Alwi et al., 2019). The presence of IFIs in Malaysia began with Lembaga Tabung Haji (LTH) in 1963 (formerly known as Lembaga Urusan Tabung Haji or LUTH) as a pioneering effort that enables Muslims to financially invest in interest-free bank accounts. Specifically, LTH aims to provide Muslims with the opportunity to gradually save money in fulfilling their pilgrimage expenses with a Shariah-compliant savings and investments concept. Some scholars regard LTH as the first and best model of an international-level Islamic financial institution (Asni, 2019).

The establishment of LTH as the first Malaysian Islamic savings institution led to the creation of full-fledged Islamic banking and non-banking counterparts. Following recommendations from LTH to establish Malaysian Islamic banks following requests from the local Muslim community (Asni, 2019), Bank Islam Malaysia Berhad (BIMB)

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was introduced as the first local Islamic bank in 1983 to serve the Muslim community with Shariah-compliant banking operations. Conventional banks eventually presented their respective subsidiaries (formally known as windows) in 1993. The second local full-fledged Islamic bank, Bank Muamalat Malaysia Berhad (BMMB), was established in 1999 while MBSB Bank Berhad was incorporated in 2018 as third full-fledged Islamic bank in Malaysia. Malaysian conventional banks began introducing Islamic banking subsidiaries in 2004 to compete against full-fledged Islamic counterparts. A total of 16 Malaysian Islamic banks operate alongside local conventional financial institutions to date with distinct banking legislation and regulations (Alharbi, 2015).

The local government strives to strengthen this dual banking system where Islamic banking practices complement conventional ones. The total Islamic banking assets in Malaysia amounted to USD210 billion (see Figure 2.3) or 11.4% of the international Islamic banking assets due to high Islamic bank financial performance. The market share drastically rose to 28.9% (see Figure 2.4).

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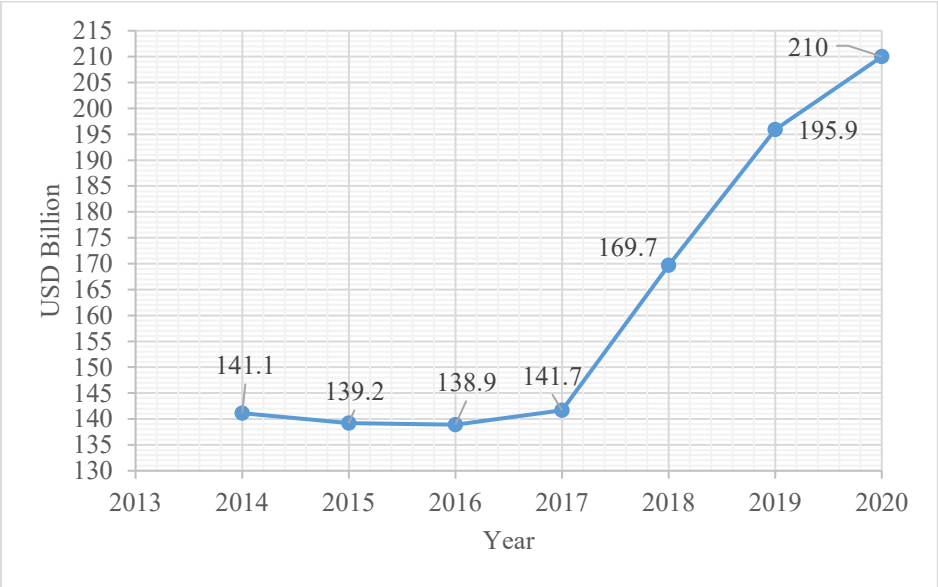

Figure 2.3
Banking Assets of Malaysian Islamic Banks in the Period 2014-2020
Source: Islamic Financial Service Board, 2021

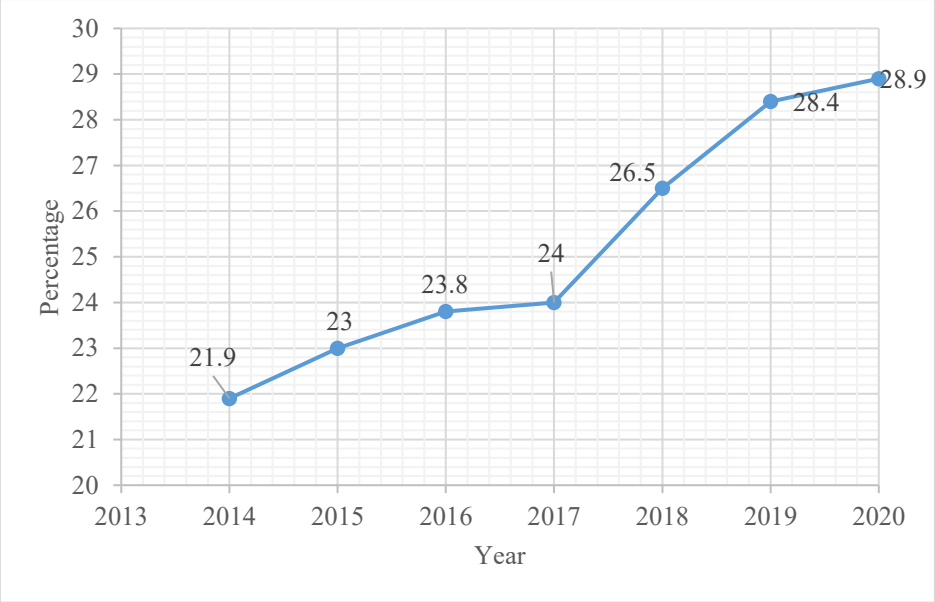

Figure 2.4
Market Share of Malaysian Islamic Banks in the Period 2014-2020
Source: Islamic Financial Service Board, 2021

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Based on past research, Islamic banks are characterised by the financial performance that differs from that of conventional counterparts. Masruki et al. (2011) disclosed that Islamic banks depict higher liquidity and lower credit risk compared to conventional ones. A comparative study by Wasiuzzaman and Gunasegawan (2013) between Malaysian Islamic and conventional banks between 2005 and 2009 demonstrated the operational efficiency, asset quality, liquidity, and capital adequacy of Islamic banks to be higher than conventional counterparts. On another note, Sulaiman @ Mohamad and Mohamad and Hashim (2018) denoted that Islamic banks revealed a higher ROE than conventional institutions between 2000 and 2011. In this vein, Islamic banks reflect higher equity management quality compared to conventional counterparts. The profitability of Malaysian Islamic banks in 2019 regarding ROA and ROE proved to be higher than conventional banks (Islamic Financial Services Board, 2020).

Malaysian Islamic banks demonstrate high resilience during the Asian economic crisis between 1997 and 1999 (Abd Majid & Kassim, 2015). A recent study by Gani and Bahari (2021) revealed that Islamic banking positively and significantly catalysed the real Malaysian economy in the long run. Specifically, Islamic bank financing and deposits favourably and substantially boost local economic progress compared in the short run. The study outcomes imply the optimal performance of the Malaysian Islamic banking industry to execute primary financial intermediation roles (fund pooling and channelling) for productive investment activities. Overall, the effective performance of Malaysian Islamic banks has enabled Malaysia to excel in Islamic finance.

The variations between Islamic and conventional bank performance might be caused by the distinctive attributes underpinning Islamic establishments. Iqbal and Mirokhar (2007) outlined some of the unique Islamic bank characteristics that highlighted their novelty and exclusivity (upholding public justice and fairness and distinct business operations and objectives) compared to that of conventional banks.

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2.3 Financial Performance

The financial performance of companies involved in the financial and banking industries indicates the extent to which organisations manage firm resources to fulfil stakeholders' interests (Antony & Bhattacharyya, 2010). It is essential to emphasise both long-term and short-term of organisational financial performance for shareholders and stakeholders' engagement in decision-making processes, particularly before participating in novel investment activities. Shareholders and stakeholders tend to ensure the financial security, stability, and profitability of an organisation in the long term for sustainable financial performance and competitive advantage (Ong & Cheng,

2014). The management is responsible for improving financial performance to alleviate stakeholder (investors, creditors, and employees) concerns about organisational performance as high financial performance induces wealth.

The company management needs to manage organisational financial performance in fulfilling stakeholders' expectations given the financial performance variations based on internal firm attributes: company size (Chowdhury & Mohd Rasid, 2016; Egbunike & Okerekeoti 2018; Hemrit 2020; Kantakji, Abdul Hamid & Alhabsi, 2020), leverage (Egbunike & Okerekeoti, 2018; Ibhagui & Olokoyo, 2018), liquidity and capital adequacy (Sufian & Kamarudin, 2015; Al-Qaisi, 2017; Egbunike & Okerekeoti 2018), asset turnover (Muritala, 2012; Kim & Thanh, 2021), and CG (Belkhir, 2009; Titova, 2016; Mori & Towo, 2017; Merendino & Melville, 2019; Al Nasser, 2020; Noguera, 2020; Queiri et al. 2021). Following past studies, external factors substantially impacted organisational financial performance involving GDP (Egbunike & Okerekeoti, 2018; Kantakji et al., 2020) and inflation (Chowdhury & Mohd Rasid, 2016; Egbunike & Okerekeoti, 2018; Hemrit, 2020).

Financial performance could be evaluated with multiple indicators. Accounting-based measurements, such as liquidity, profitability, leverage, and turnover ratios are extensively employed for organisations to measure the financial performance. In Mallin et al. (2014), profitability ratios constituting ROA and ROE are widely utilised to assess bank performance and sustainable growth. Notably, both proxies are classified under accounting-based measurement.

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Essentially, the ROA ratio is computed by dividing net income with the average total assets. Accounting-based ROA, which implies organisational measurement, differs across multiple firms that incorporate efficient asset utilisation measurements. The ROA is broadly employed to demonstrate and evaluate the company operational performance (Dietrich & Wanzenried, 2011; Maqbool & Zamir, 2021). For example, ROA indicates bank financial performance and managerial efficiency, demonstrates organisational competence in profiting from assets and asset management efficiency for revenue generation (Platonova et al., 2018), and ascertains company performance with regard to finance and operations (Klapper & Love, 2004). Overall, high ROA results in optimal asset usage to fulfil shareholder interests (lbrahim & Abdul Samad, 2011).

Meanwhile, ROE is computed by dividing net income by shareholder equity to measure how organisations utilise shareholder funds for profit generation (Ming-Hsiang & Chien-Pang, 2015). In this vein, ROE denotes an optimal index for managers to evaluate company profitability (Saleh et al., 2021). The ROE ratio ascertains whether owners' investment is generating profit, which is worth the risk that an investment may require for revenue generation (Berman, Knight & Case, 2013). As such, ROE functions as financial success or failure indicator for all stakeholders and ascertains whether investing new equity capital into the business or otherwise influences (high or low) profitability (Follett, 2012).

Past studies in Indonesia (Prima Sakti & Mohamad, 2018), Pakistan (Jaafar & Manarvi, 2011; Khan, Khan & Tahir, 2017), Malaysia (Masruki, Ibrahim, Osman & Abdul Wahab, 2011; Wasiuzzaman & Gunasegawan, 2013; Sulaiman @ Mohamad,

Mohamad & Hashim, 2018), and the Middle East and North Africa (MENA) countries (Fayed, 2013; Mokni & Rachdi, 2014; Johnes et al., 2014) revealed that Islamic bank financial performance is characterised by variances in financial performance with their own benefits over conventional counterparts. A study by Ledhem and Mekidiche (2020) on Islamic banks disclosed that the profit derived from ROE undeniably boosts national economic growth. In addition, financial performance in term of the profitability of global Islamic banking sectors measured by ROE in 2018 (16.3%) was higher than those documented by conventional counterparts over the same duration in both the United States (US) and Europe at 11.9% and 7.2%, respectively (Islamic Financial Services Board, 2019). Meanwhile, ROA and ROE of Malaysian and GCC Islamic banks were higher than their conventional counterparts in 2019 (Islamic Financial Services Board, 2020). Furthermore, most empirical works emphasised financial performance measurement with both ROA and ROE as the well-established proxies of accounting-based measurement. The aforementioned proxies have been broadly employed in research encompassing the banking sector (El Mousaid & Boutti, 2012; Arshad et al. 2012; Mallin et al., 2014; Hafez, 2015; Cornett et al., 2016, Menne et al., 2016; Platonova et al., 2018; Buallay, 2018; Shakil et al., 2019; Nizam, et al., 2019; Ho et al., 2019), including Islamic banks.

Notwithstanding, profit measures have been denounced as a backward-looking approach that only partially forecasts future events using depreciation and amortisation. Ong and Cheng (2014) asserted that accounting-based measurement merely depicts historical business performance. Performance evaluation with this measurement alone might not holistically reflect company performance. As such, long-term financial performance assessment involving market value characterises organisational

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developmental potentials (Bharadwaj, Bharadwaj & Konsynski., 1999; Tanriverdi, 2006; Ravichandran, Liu, Han & Hassan, 2009). Meanwhile, Myskova and Hajek (2019) contended that a higher ROE value does not necessarily imply improved the financial performance of the organisations as it could be derived from a strong financial leverage impact that could prove hazardous for solvency. Furthermore, ROE fails to disclose the amount due to shareholders as dividends, which continues to be decided by the management (Berzkalne & Zegalve, 2014).

2.4 Corporate Social Responsibility (CSR)

Fundamentally, CSR depicts the moral and ethical obligations of a company towards the society in which it operates. Carroll (1999) denoted the expansion of CSR in the 1960s with multiple studies aiming to formalise or precisely justify its meaning. In Frederick (1960), CSR implies a businessman's actions to oversee economic system operations in fulfilling public expectations. In other words, production and distribution must correspond to the enhancement of total socio-economic welfare. Davis (1960) characterised CSR as organisational decisions and actions undertaken for reasons that are partially beyond direct economic or technical company interests. Similarly, McGuirie (1963) proposed that business entities constitute economic and legal obligations and social accountability that extends beyond the aforementioned duties.

Carroll (1991) further outlined CSR as an organisational obligation involving business accountability elements and argued in favour of the CSR-centric stakeholder concept to counter the typical argument of CSR-related ambiguities. Prominent Islamic researchers (Dusuki, 2008; Dusuki & Abdullah; 2007b; Farook, 2008; Arsad, 2015; Abu Bakar & Md Yusof, 2016) supported the stakeholder theory by justifying CSR and

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defining the concept in terms of business sustainability and ethics and being accountable for stakeholders' welfare. Past research on the catalysts of CSR practice implementations revealed external stakeholder engagement (Arevalo & Aravind, 2011; Nyuur, Ofori & Debrah, 2014; Ali, Frynas & Mahmood 2017; Singh & Mittal, 2019; Min, Kim & Lo, 2020), internal employee involvement (Nyuur et al., 2014; Park & Ghauri, 2015; Ali et al., 2017; Singh & Mittal, 2019), ethical and moral considerations (Arevalo & Aravind, 2011), and competitor pressure (Park & Ghauri, 2015: Ali Bukhari et al., 2020) as key determinants of financial performance. Most of the aforementioned outcomes highlighted stakeholder pressure as the primary factor impacting CSR practice implementation and complemented the stakeholder theory where emphasising business stakeholders' needs and rights could significantly establish social organisational behaviour.

The CSR impacts organisational performance across multiple business sectors (manufacturing, retailing, and services) in various nations (Feng et al., 2015; Famiyeh, 2017; Park, 2017; Devie et al., 2018; Ling 2019). Specifically, the stakeholder theory justifies the CSR-organisational performance correlation. The study, which incorporated the same CSR dimensions entailing employee and consumer protection, environmental protection, and community involvement, revealed that CSR activities positively impacted organisational financial performance. Conversely, several studies disclosed a negative CSR-financial performance connection (Rutledge et al., 2014; Omar & Zallom, 2016; Buallay, 2019b; Sekhon & Kathuria, 2019) where high CSR activity implementations would lower organisational profitability following the organisational need to bear the additional costs incurred from such tasks.

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Based on multiple banking sector-oriented studies, CSR activity implementations have positively impacted the bank financial performance on a global scale (Wu & Shen, 2013; Cornett et al., 2016; Gangi et al., 2019: Nizam et al., 2019). Specifically, such implementations in banking would enhance the bank profitability measured by ROA or ROE. Notably, Islamic bank CSR practices and implementations are not novel management concerns. Bella and Al-Fayoumi's (2016) research on multiple stakeholders' perspectives of Islamic bank CSR revealed positive stakeholder attitudes towards CSR notions. Other studies that integrated the stakeholder theory to justify variable relationships in Indonesia (Menne et al., 2016), Egypt (Hafez, 2015), and GCC nations (Platonova et al., 2018) investigated the CSR and financial performance in IFIs. Two financial indicators (ROA and ROE ratios) were employed for bank financial performance assessment. In this vein, CSR activity implementations positively affected the profitability of Islamic banking institutions.

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Malaysian Islamic banks are actively incorporating CSR (Jaiyeoba et al., 2018) in line with stakeholders who expect Islamic banks to prioritise social objectives (Dusuki, 2008). As such, it is deemed vital for such establishments to convey their CSR practices in demonstrating the fulfilment of stakeholders' anticipations. Malaysian Islamic banking studies by Arshad et al. (2012), Arsad et al. (2014), Tuan Ibrahim et al. (2020), and Mohd Sofian and Muhamad (2020), which investigated the CSR implementation effects on financial performance, implied that CSR activities would optimise the financial performance of banks.

Several studies have presented CSR following the Islamic Corporate Social Responsibility (ICSR) framework and further examined its relationship with Islamic

banking performance. Arsad et al. (2014) assessed the Islamic CSR disclosure level of 114 Shariah-compliant companies listed in Bursa Malaysia and examined the ICSR disclosure-organisational performance connection. The CSR disclosures were categorised based on the five *Maqasid Shariah* elements: protection of religion, life, mind, lineage, and wealth. Resultantly, ICSR disclosure potentially improves organisational performance following the fulfilment of stakeholder expectations and needs. Meanwhile, Arshad et al. (2012) investigated the relationship between ICSR disclosures and Malaysian Islamic bank profitability in 2008, 2009, and 2010. Notably, the Islamic CSR disclosures were structured through past research and Bursa Saham Malaysia guidelines. The research outcomes implied the positive impact of Islamic CSR disclosure on the ROA and ROE of banks. Mohd Sofian and Muhamad's (2020) recent study examined the Modified Integrated Islamic CSR Disclosure index (MIICSRDi)-Malaysian Islamic bank financial performance relationship. The research employed a questionnaire survey as the study tool, which was disseminated to 343 Malaysian Islamic bank stakeholders. A significant and positive MIICSRDi-financial performance link was highlighted from the stakeholders' perspective.

The CSR framework in Malaysia was established by Bursa Malaysia in 2006 to facilitate local companies toward CSR implementation. Nevertheless, CSR-oriented intricacies continue being discussed within the Malaysian Islamic bank context, particularly concerning an adequate bank measurement model. For example, Salma Sairally (2013) conducted an investigation on the CSR performance of IFIs (including Malaysia) revealed limited CSR activities owing to their primary objectives in fulfilling legal, economic, and internal prerequisites. Perceivably, future studies should focus on a robust Islamic bank business model that contributes to social benefits.

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Wan Jusoh et al. (2014) conducted a study on Islamic bank CSR activities revealed a lack of comprehensive research that determines Islamic bank CSR practice guidelines as the CSR measurement is elicited from multiple bases: accounting, auditing and for IFIs (AAOIFI), Malaysian accounting standard board (MASB), IFSB, BNM, and past empirical works. Suggestively, a standard and exclusive CSR framework should be presented for banks to distinguish them from other establishments in line with Adnan (2015) where most Islamic bank CSR dimensions are developed and assessed under the Bursa Malaysia framework CSR guidelines encompassing four primary dimensions: employee, customer, community, and environment. Notably, the dimensions are also adopted in other organisational types. Some of the Islamic banks were also found to perform CSR evaluations based on their AAOIFI and various sources.

Recent research by Wan Jusoh and Ibrahim (2020) examined Islamic bank CSR practices from bank practitioners' perspectives. It is deemed pivotal to present an exclusive CSR model for Islamic banks. Additionally, Islamic banks should incorporate a robust CSR model to distinguish them from conventional counterparts. The study outcomes paralleled Adnan (2015) who proposed the integration of Shariah principles and values with Islamic bank CSR measurement to ensure the existence of a genuine Shariah-compliant measurement from an Islamic worldview and epistemology.

Conclusively, the social accountability of Islamic organisations implies legal obligations, the fulfilment of shareholders' material rights, and spiritual and moral duties that catalyse business and social sustainability. Thus, CSR measurement based on Islamic values and principles was incorporated into this study given the significant and mixed outcomes on the current CSR-financial performance correlation.

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Table 2.1
Summary of the CSR and its Impact on Financial Performance

No.	Authors	Countries	Periods	Methodologies	Empirical Results
1	Cornett at al. 2016	US	2003-2007 2010-2013	GMM	The study found that CSR measured by ESG has positive influence on the ROA, ROE and net profit margin (NPM) of banks.
2	Buallay (2019b)	E.U countries	2007-2016	Random effect	The study revealed that CSR have negative significant impact on the financial performance of banks in term of ROA, ROE and Tobin Q.
3	Hafez (2015)	Egypt	2005-2013	Multiple regression	The study found that CSR does not have significant impact on the ROA of the banks. But, the study found CSR have a positive significant impact on ROE.
4	Platonova et al. (2018)	GCC countries	2000-2014	Muliple regression	The study found that a significant positive relationship between CSR and the ROA of Islamic banks.
5	Arshad et al. (2012)	Malaysia	2008, 2009 and 2010	Multiple regression	The study found that Islamic CSR has positive and significant impact on the ROA and ROE of Islamic banks.
6	Sekhon and Kathuria (2019)	India	2008-2017	Random effect	The results of the study revealed that CSR has significant negative relationship with the ROA, ROE and NPM of companies.
7	Feng et al. (2015)	US	1991-2011	Multiple regression	The study found positive and significant association between CSR and the ROA of firms.

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Table 2.1 (Continued)

No.	Authors	Countries	Periods	Methodologies	Empirical Results
8	Park (2017)	Korea	2010 and 2011	OLS regression	The study revealed that a positive insignificant association between CSR and ROA a positive insignificant association between CSR and Tobin Q.
9	Nizam et al. (2019)	75 Countries	2013-2015	OLS regerssion	The result revealed that providing financing for CSR project would increase the financial performance of banks in terms ROE.
10	Rutledge et al. (2014)	China	2010 and 2011	Multiple regerssion	The results of the study revealed that CSR has significant negative relationship with the ROE of banks.
11	Wu and Shen (2013)	22 countries	2003-2009	Multiple regression	The study shown that a positive and significant relationship between CSR and the financial performance in terms of ROA, ROE and net interest of the banks.
12	Mohd Sofian and Muhamad (2020)	Malaysia	2015	SEM	The study indicated that Islamic CSR has a positive and significant influence on the perceived financial performance of Islamic banks.
13	Ling (2019)	Taiwan		Multiple Regression	The study revealed that CSR has positive influence on the perceived financial performance in Taiwan.
14	Gangi et al. (2019)	20 European Companies	2009-2015	Fixed Effect	The results of the study shown a positive relationship between CSR and the ROA of companies.
15	Shakil et al. (2019)	93 banks in emerging countries	2015-2018	GMM	The results revealed that CSR represent by environmental and social performance has a positive influence on the ROA and ROE of banks.

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2.5 The CSR from Islamic Perspective

As a religion with a complete code of life, Islam constitutes three fundamental elements: *aqidah* (belief and faith), Shariah, and *akhlaq* (morality and ethics). Islamic business activities fall under the jurisdiction of Islamic *Muamalat* (economic activities), which denotes a part of the Shariah. As such, the CSR concept in business needs to be holistically and extensively understood from an Islamic perspective based on the Al-Quran and As-Sunnah (Kamil & Jan 2014; Abu Bakar & Md Yusof, 2016). Both Islamic and conventional CSR demonstrate distinct values and aspirations following their operationalisation on various philosophical grounds in the economic system: *halal* (lawful) and *haram* (unlawful) (Arsad et al., 2015).

Based on Islamic CSR-oriented literature reviews, specific paradigms and notions have been empirically employed to justify the CSR from Islamic perspective. This concept is readily incorporated into *Maqasid Shariah*. From an Islamic viewpoint, CSR constitutes a set of operation-oriented activities that fulfil the *Maqasid Shariah* prerequisites (Muwazir et al., 2006; Dusuki & Abdullah, 2007b; Yusof & Bahari, 2011; Ali Basah & Md Yusoff, 2013; Darus et al., 2013; Arsad, 2015; Issalih et al., 2015; Abu Bakar & Md Yusof, 2016; Said, Abdul Samad, Mohd Sidek, Ilias, Omar, 2018).

Dusuki (2008) and Ali Basah and Md Yusuf (2013) emphasised the essentiality of Shariah principles to gauge Islamic CSR. Shariah principles have evolved within *Maqasid Shariah* guidelines to promote social well-being. The authors added that *Taqwa* (wariness of God or God-consciousness) is central to the understanding of Shariah, which denotes the purposeful attainment of Shariah objectives in Shariah-adherent ways. An individual with a *Taqwa*-oriented paradigm is imbued with a sound understanding of their role in reality to manage and develop the world following

Shariah principles. Likewise, Darrag and E-Bassiouny (2013) contended that Islamic CSR requires a *Taqwa*-centric paradigm where businesses are equally motivated by profit maximisation and Shariah principles to pursue the ultimate felicity in this life and the hereafter. Organisations need to recognise their social and moral obligations for consumers', employees', shareholders', and local community members' welfare. Meanwhile, Kamil and Jan (2014) also stressed that Islamic CSR should be developed using a *Taqwa*-based paradigm based on the Al-Quran and As-Sunnah.

Allah (SWT) elaborates on *Taqwa* in several Al-Quranic verses as follows:

يَا أَيُّهَا الَّذِينَ آمَنُوا اتَّقُوا اللَّهَ حَقَّ تُقَاتِهِ وَلَا تَمُوتُنَّ إِلَّا وَأَنْتُمْ مُسْلِمُونَ

Believers! Fear Allah as He should be feared, and see that you do not die save in the state of submission to Allah (Al-Quran, Surah Ali Imran: 102)

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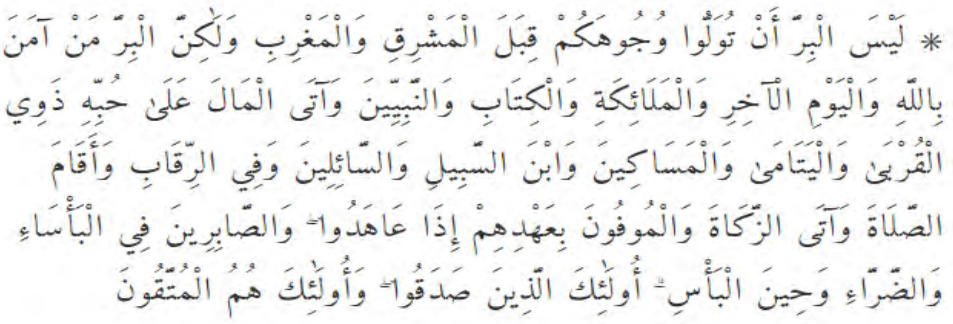
Specifically, Allah warned His believers about the essentiality of *Taqwa*, all Muslims obeying His order and rules, and refraining from committing sins for a peaceful life in this world and the hereafter.

Allah the Almighty also described Muslims with *Taqwa* as the noblest believers:

يَا أَيُّهَا النَّاسُ إِنَّا خَلَقْنَاكُمْ مِنْ ذَكَرٍ وَأُنْثَىٰ وَجَعَلْنَاكُمْ شُعُوبًا وَقَبَائِلَ لِتَعَارَفُوا ۚ إِنَّ أَكْرَمَكُمْ عِنْدَ اللَّهِ أَتْقَاكُمْ ۚ إِنَّ اللَّهَ عَلِيمٌ خَبِيرٌ

O mankind, indeed We have created you from male and female and made you peoples and tribes that you may know one another. Indeed, the most noble of you in the sight of Allah is that who has At- Taqwa. Indeed, Allah is Knowing and Acquainted (Al-Quran, Surah Al-Hujurat: 13)

In another verse, Allah considers believers with *Taqwa* as *Muttaqeen.* Allah states as follows:


لَيْسَ الْبِرَّ أَنْ تُوَلُّوا وُجُوهَكُمْ قِبَلَ الْمَشْرِقِ وَالْمَغْرِبِ وَلَٰكِنَّ الْبِرَّ مَنْ آمَنَ
بِاللَّهِ وَالْيَوْمِ الْآخِرِ وَالْمَلَائِكَةِ وَالْكِتَابِ وَالنَّبِيِّينَ وَآتَى الْمَالَ عَلَىٰ حُبِّهِ ذَوِي
الْقُرْبَىٰ وَالْيَتَامَىٰ وَالْمَسَاكِينَ وَابْنَ السَّبِيلِ وَالسَّائِلِينَ وَفِي الرِّقَابِ وَأَقَامَ
الصَّلَاةَ وَآتَى الزَّكَاةَ وَالْمُوفُونَ بِعَهْدِهِمْ إِذَا عَاهَدُوا ۖ وَالصَّابِرِينَ فِي الْبَأْسَاءِ
وَالضَّرَّاءِ وَحِينَ الْبَأْسِ ۗ أُولَٰئِكَ الَّذِينَ صَدَقُوا ۖ وَأُولَٰئِكَ هُمُ الْمُتَّقُونَ

> *It is not Al-birr (piety, righteousness and each and every act of obedience of Allah, etc.) that you turn your faces towards east and (or) west (in prayers); but Al-birr is (the quality of) the one who believes in Allah, the Last Day, the Angels, the Book, the Prophets and gives his wealth, in spite of love for it, to the kinsfolk, to the orphans, and to Al-Masakin (the poor), and to the wayfarer, and to those who ask, and to set slaves free, performs Solat and gives the Zakat, and who fulfil their covenant when they make it, and who are patient in extreme poverty and ailment (diseases) and at the time of fighting (during the battles). Such are the people of the truth and they are Al-Muttaqeen (the pious). Al-Quran, Surah Al-Baqarah:177)*

Dusuki (2008) further justified *Taqwa* under the CSR dimension where corporate organisations collectively undertake roles and responsibilities as servants and vicegerents in all circumstances. According to Farook (2008), fundamental Islamic CSR principles imply the vicegerency of mankind on earth, divine accountability, and one's duty to uphold goodness and deter evil. As a representative of God, individuals are responsible for protecting the welfare of God's creation. A righteous person comprehends their role in this world is to manage and develop life based on Shariah principles and values. Mohammed Shamim and Md. Nesarul (2011) conceded that Islamic CSR entails a wider connotation, which upholds the *Taqwa* value in all circumstances where organisational members act as servants and vicegerents of God.

Allah has explicitly outlined the vicegerent concept in the Holy Quran as follows:

وَإِذْ قَالَ رَبُّكَ لِلْمَلَائِكَةِ إِنِّي جَاعِلٌ فِي الْأَرْضِ خَلِيفَةً ۖ قَالُوا أَتَجْعَلُ فِيهَا مَنْ يُفْسِدُ فِيهَا وَيَسْفِكُ الدِّمَاءَ وَنَحْنُ نُسَبِّحُ بِحَمْدِكَ وَنُقَدِّسُ لَكَ ۖ قَالَ إِنِّي أَعْلَمُ مَا لَا تَعْلَمُونَ

And when said your Lord to the angels, "Indeed, I (am) going to place in the earth a vicegerent, they said, "Will You place in it (one) who will spread corruption in it and will shed [the] blood[s], while we, [we] glorify (You) with Your praises and we sanctify [to] He said, "Indeed, [I] know what not you know. (Al-Quran, Surah Al-Baqarah:30)

Specifically, the verse indicates Allah has created human beings as vicegerents in this life where each Muslim must function as vicegerents and utilise resources that ultimately belong to God for the benefit of mankind.

Following Siwar and Hossain (2009), organisations collectively undertake roles and responsibilities as servants and vicegerents in all circumstances through their members. In this vein, a relationship with God is inspired by truthfulness, fairness, kindness, and uprightness instead of envy, backbiting, and discrimination. Such values should naturally manifest in company activities and relationships with other human beings (stakeholders). Furthermore, Islamic CSR practices maintain a positive relationship with Allah (SWT), other human beings, and the environment for *Maqasid Shariah* for *maslahah* attainment (Muwazir et al., 2006; Yusof & Bahari, 2011; Khurshid et al., 2014; Abu Bakar & Md Yusof, 2016). Organisations are accountable for society and the environment given their connection with God, other individuals, and stakeholders. Allah clearly stated the relationship between God and human beings in the Al-Quran as follows:

ضُرِبَتْ عَلَيْهِمُ الذِّلَّةُ أَيْنَ مَا ثُقِفُوا إِلَّا بِحَبْلٍ مِنَ اللَّهِ وَحَبْلٍ مِنَ النَّاسِ وَبَاءُوا بِغَضَبٍ مِنَ اللَّهِ وَضُرِبَتْ عَلَيْهِمُ الْمَسْكَنَةُ ۚ ذَٰلِكَ بِأَنَّهُمْ كَانُوا يَكْفُرُونَ بِآيَاتِ اللَّهِ وَيَقْتُلُونَ الْأَنْبِيَاءَ بِغَيْرِ حَقٍّ ۚ ذَٰلِكَ بِمَا عَصَوْا وَكَانُوا يَعْتَدُونَ

Wherever they were, they were covered with ignominy, except when they were protected by either a covenant with Allah or a covenant with men. They are laden with the burden of Allah's wrath, and humiliation is stuck upon them - and all this because they rejected the signs of Allah and slayed the Prophets without right, and because they disobeyed and transgressed. (Al-Quran, Surah Ali Imran:112)

It is supported by the following Hadith:

عَنْ أَبِي ذَرٍّ جُنْدُبْ بْنِ جُنَادَةَ وَأَبِي عَبْدِ الرَّحْمَنِ مُعَاذْ بْنِ جَبَلٍ رَضِيَ اللهُ عَنْهُمَا عَنْ رَسُوْلِ اللهِ صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ قَالَ : إِتَّقِ اللهَ حَيْثُمَا كُنْتَ، وَأَتْبِعِ السَّيِّئَةَ الْحَسَنَةَ تَمْحُهَا، وَخَالِقِ النَّاسَ بِخُلُقٍ حَسَنٍ " [رواه الترمذي وقال حديث حسن وفي بعض النسخ حسن صحيح]

Abu Dhar Jundub bin Junadah and Abu Abdul Rahman Mu'adh bin Jabal, radiyallahu anhuma, reported that the Messenger of Allah, sallallahu 'alayhi wasallam, said: "Fear Allah wherever you are, and follow up a bad deed with a good deed and it will wipe it out, and behave well towards people." (HR. At-Tirmidzi, Hadits Hasan Shahih).

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Conclusively, Islamic CSR aims to attain *Maqasid Shariah* for *maslahah*. As a part of IFIs, CSR practices could be incorporated into Islamic banks from *Maqasid Shariah* and *maslahah* perspectives to deliver the most optimal structure and assist organisations during potential conflicts that could obstruct the fulfilment of stakeholder needs. *Maqasid Shariah* could offer significant and ethical guidance, specifically using Islamic CSR within institutions, where companies need to promote and safeguard social welfare and requirements beyond prioritisation.

Issalih et al. (2015) affirmed that companies should function parallel to Islamic economic system principles and gauge business operation impacts under the *Maqasid*

Shariah concept. The following verse explains the CSR for the organisation to follow. Allah stated as follows:

إِنْ تُبْدُوا الصَّدَقَاتِ فَنِعِمَّا هِيَ ۖ وَإِنْ تُخْفُوهَا وَتُؤْتُوهَا الْفُقَرَاءَ فَهُوَ خَيْرٌ لَكُمْ ۚ
وَيُكَفِّرُ عَنْكُمْ مِنْ سَيِّئَاتِكُمْ ۗ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ

> *If you disclose your charitable expenditures, they are good; but if you conceal them and give them to the poor, it is better for you, and He will remove from you some of your misdeeds [thereby]. And Allah, with what you do, is [fully] acquainted. (Al-Quran, Surah Al-Baqarah:271)*

The aforementioned discussion also disclosed higher Islamic CSR connectivity with Muslim consumers' faith and values. Islamic banks should adopt Islamic CSR principles compared to CSR alone with *Maqasid Shariah* the foundation underpinning Islamic bank business ideology. Islam preaches multiple conventional and non-conventional techniques of performing good deeds. Invocations and reflections of *Maqasid Shariah* and *maslahah*, respectively, denote that such institutions must promote overall social welfare and needs beyond profitability.

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2.6 Shariah Compliance

Following the previously-mentioned chapter, *Maqasid Shariah* could be integrated with the social framework from an Islamic viewpoint. Islamic banks must observe *Maqasid Shariah* and *maslahah* principles to facilitate their social practices in organisations. The independent study variables were based on six social Shariah compliance elements based on *maslahah* of Iman al-Ghazali's framework adapted from studies of from Attia (2005), Ibnu Ashur (2006) and Noordin and Hudaefi (2019).

2.6.1 Shariah-Compliant Financing

The Shariah-compliant financing is one of the novel Islamic bank attributes given its contribution to improving socioeconomic activities. Such Islamic financing portfolios promote economic growth with industrial development (Arshed et al., 2020; Bougatef et al., 2020; Gani & Bahari 2021) and the creation of novel entrepreneurs (Afkar, 2017). Mohammed et al. (2008), Mohammed et al. (2015) and Asutay & Harningtas (2015) regarded such interest-free income financing as a means of protecting religion under *Maqasid Shariah* and replacing conventional *riba*-oriented counterparts that are forbidden in Islam.

Islamic banks are prohibited from engaging in *riba* or interest-oriented contracts under Shariah rules and principles. The term *riba* literally implies 'an increase' from an Islamic viewpoint. The Holy Quran elaborates as follows "Allah has permitted trade and has forbidden interest" (Al-Quran, 2:275). In this vein, all pre-destined interests would be payable on a loan of any type. Rosly and Abu Bakar (2003) defined r*iba* as "a contractual increase arising from loan, whether in money or barter". The *riba* concept is forbidden under Shariah principles given the wealth concentration among a handful of people (Mirza & Baydoun, 2000).

Two Shariah-compliant financing modes, equity-based and debt-based financing, are provided by Islamic banks. Equity-based financing constitutes *Mudarabah* (profit-sharing) and *Musharakah* (profit- and loss-Sharing), whereas the debt-based financing entails *Murabahah* (cost plus mark-up), *Tawarruq* (commodity *Murabahah*), *Bai Bithaman Ajil* (deferred payment sale) *Ijarah* (hire purchase), *Bai Inah* (buy back sale), *Istisna* (sale by order), and *Qard* (benevolent loan).

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Consumers favour equity-based financing contracts entailing *Mudarabah* and *Musharakah* over other Islamic bank products (Al-Ajmi, Abo Hussain & Al-Saleh, 2009), whereas *Tawarruq* and *Murabahah* is the most preferred debt-based financing contract (Muneeza et al., 2020; Belkhaoui et al., 2020). Based on current literature, Islamic contracts avoid *riba* owing to elements of unfairness and religious prohibition. As such, the distinctive Islamic contract attribute applied by Islamic banking and financing primarily depends on the profit-and-loss-sharing mechanism in relevant contracts: *Mudarabah* and *Musharakah* (Dusuki and Abdullah, 2007a; Ismail & Tohirin, 2010; Alshattarat & Atmeh, 2016; Ahroum, Touri & Achchab, 2020). Such principles are complemented by core Islamic banking values encompassing activities that promote entrepreneurship, trade and commerce, and social advancement. The equity contract system operates on the variable return principle based on actual productivity and the performance of specific or general, individual or institutional, and private or public projects.

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In case of Malaysia, *Tawarruq* also known as commodity *Murabahah* has been widely used by Islamic banks in recent years, with usage more than doubling from 2014 to 2016 (BNM, 2016). *Tawarruq*, has become a popular alternative to *Bai Bithaman Ajil*. Ali (2017) discovered that *Tawarruq* is used in the majority of Islamic bank products in Malaysia and has gained popularity when the BNM issued a circular on *Bai Inah* in 2012, which removed the "mandatory buy back" part from the contract. According to Amin & Abdul Hamid (2018), *Tawarruq* home financing is a growing segment of Islamic home financing by many banks in Malaysia. Meanwhile, Ibrahim and Mohd Sapian (2020) stated that ten out of 16 banks offered *Tawarruq* as of 2020, owing to

their lower risky nature in terms of operating and Shariah issues as compared to *Bai Bithaman Ajil.*

Such type of financing also enables banking institutions to reap benefits. In Yanikkaya Gumus and Pabucu (2018), using products that encourage a high level of risk-sharing compared to other product-oriented structures could elevate Islamic bank performance. Past literature highlighted a high commitment level to *Musharakah* and *Mudarabah* for optimal bank performance. For example, Warninda, Ekaputra and Rokhim (2019) assessed the impact of *Mudarabah* and *Musharakah* on the Islamic bank credit risk. Panel data from 63 Islamic banks in the Middle East, South Asia, and Southeast Asia were employed in the study. Resultantly, *Mudarabah and Musharakah* financing could decrease the risk levels and increase Islamic bank stability. Jedidia and Guerbouj (2020) conducted a research on 23 GCC Islamic banks between 2005 and 2016 claimed that high profit-sharing investment accounts implying *Mudarabah* and *Musharakah* lower Islamic banking liquidity, which might increase the exposure to liquidity risks.

Musharakah and *Mudarabah* perceivably impact the Islamic bank financial performance. Dewi (2019) and Pratama and Febriansyah (2020) in Indonesia revealed that *Mudarabah* and *Musharakah* financing substantially affected the bank ROA. Resultantly, Islamic banks could maximise profitability with increased *Mudarabah* and *Musharakah* financing to their customers. Likewise, Chowdhury and Mohd Rasid (2016) in GCC nations proposed that Islamic banks should increase their equity financing (*Mudarabah and Musharakah*) for high profitability with regards to ROA.

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Meanwhile, a study by Abbas and Arizah (2019) examined the direct and indirect impacts of *Mudarabah* and *Musharakah* financing on Indonesian bank financial performance between 2011 and 2016. Based on the research outcomes, *Musharakah* and *Mudarabah* financing explicitly affect organisational profitability through two financial indicators: ROA and ROE. *Mudarabah* also demonstrated a partial impact while *Musharakah* reflected a competitive effect on the market-bank profitability correlation. However, a study by Syahri and Harjito (2020) on Indonesian Islamic banks between 2012 and 2016 highlighted a positive and negative *Mudarabah*-ROE and *Musharakah*-ROE relationship, respectively. Meanwhile, a study by Afkar (2017) found no substantially impact of *Mudarabah* on ROA in Indonesian Islamic banks from 2010 to 2014.

Other Shariah contracts under debt-based financing were also examined in past literature. Yusuf and Isa (2021) who recently examined the *Ijarah* financing-Malaysian bank financial performance correlation between 2008 and 2018 revealed a positive and significant *Ijarah* financing-NPM association and a positive and insignificant *Ijarah* financing-bank ROA connection. Meanwhile, a study by Afkar (2017) disclosed that *Qard* financing positively impacted the Indonesian Islamic bank ROA.

Ijaiya, Jimoh, Attah, Abdulmumin and Nafiu (2021) investigated the relationship between Islamic bank *Murabahah* financing contracts in Africa between 2012 and 2019. Three regression models (pooled, fixed, and random effect) were utilised for outcome analysis. Based on the fixed-effect regression outcome, *Murabahah* financing would maximise the profitability characterised by the bank ROA. Yusuf et al. (2019) similarly highlighted that *Murabahah* positively and significantly impacted ROA of

Indonesian Islamic banks. Meanwhile, Almanaseer and Alslehat (2016) conducted a study on Jordanian Islamic banks revealed that *Murabahah, Mudarabah*, and *Bai Ajil* positively influenced bank profitability.

Based on the aforementioned discussions, past scholars have assessed the impact of individual SCF on bank financial performance. Nevertheless, this study renders it necessary to test the integration of Shariah-compliant financing contracts and its subsequent implications on the Malaysian Islamic bank financial performance as not all the combinations of Shariah-compliant financing have been assessed in past literature.

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Table 2.2
Summary of the Shariah-Compliant Financing and its Impact on Financial Performance

No.	Authors	Countries	Periods	Methodologies	Empirical Results
1	Pratama and Febriansya (2020)	Indonesia	2013-2017	Multiple Regression	The study found that *Mudarabah* and *Musharakah* partially and simultaneously have a positive influence on the ROA of banks.
2	Chowdhury and Mohd Rasid (2017)	GCC countries	2005-2013	Fixed effect, Random effect and GMM	The study suggested that *Mudarabah* and *Musharakah* financing enhanced the profitability of the banks in term of ROA.
3	Abbas and Arizah (2019)	Indonesia	2011-2016	OLS	The study found that *Mudarabah* and *Musharakah* has a positive impact on both the ROA and ROE of banks.
4	Falahuddin et al. (2021)	Indonesia	2015-2019	Multiple Regression	The study found that *Mudarabah* income has a positive impact on the profitability of banks.
5	Zaini et al. (2018)	Malaysia	2019-2013	Multiple Regression	The study revealed that implementation of Shariah instruments will increase the profitability of banks.
6	Yusuf et al. (2019)	Indonesia	2011-2015	Multiple Regression	The study found that *Murabahah* has a positive and significant impact on ROA, while *Mudarabah* and *Musharakah* have insignificant impact on ROA both partially and simultaneously.
7	Dewi (2019)	Indonesia	2014-2018	Multiple Regression	The study found that *Mudarabah* and *Musharakah* financing enhances the profitability of banks in term of ROA.

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Table 2.2 (Continued)

No.	Authors	Countries	Periods	Methodologies	Empirical Results
8	Almanaseer and Alslehat (2016)	Jordan	2006-2014	OLS	The study found that *Murabahah*, *Mudarabah* and *Bai Ajil* has a positive and significant impact on the profitability of banks
9	Ijaiya et al. (2021)	Afrika	2012-2010	Fixed effect	The study revealed that *Murabahah* financing able to boost the profitability of banks in terms of ROA.
10	Afkar (2017)	Indonesia	2010-2014	Multiple regression	The study found that no significant impact of *Mudarabah* on the ROA while a positive and significant impact of *Qard* on the ROA of banks.
11	Yusof and Isa (2021)	Malaysia	2008-2018	Fixed and Random	The study revealed that *Ijarah* financing has a significant positive association with the NPM while a positive and insignificant association with the ROA of banks.
12	Syahri and Haryito (2020)	Indonesia	2012-2016	Multiple regression	The result revealed that that *Mudarabah* has a positive significant association with ROE while *Musharakah* has a negative and significant association with ROE. However, *Mudarabah* and *Musharakah* simultaneously have a significant positive impact on the ROE of banks.

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2.6.2 Zakat

As one of the five pillars of Islam, Zakat denotes alms or charity (Lewis, 2001; Tuan Ibrahim et al., 2020; Nizar Al-Malkawi & Javaid, 2018), which is regarded as a wealth redistribution tool and part of one's religious obligation to the poor. Muslims believe that Zakat purifies an individual's soul and wealth to receive Allah's blessings. In Saad and Haniffa (2014), Zakat implies purity, development, blessings, and praise, a form of worship to Allah, and social investment that Muslims should make. The Zakat also functions as an instrument to resolve current social and economic concerns, such as poverty, to mitigate social inequality (Adnan & Abu Bakar, 2007; Raimi, Patel & Adelopo, 2014; Aziz & Mohamad, 2016; Bilo & Machado, 2020).

Islam provides a precise and effective solution that renders it compulsory for eligible Muslims or businesses to pay Zakat to mitigate poverty. For example, IFIs could help the impoverished and decrease the poverty level in society through Zakat based on inherent Shariah principles and mechanisms toward an equitable, fair, and welfare-based development (Raquib, 2011). Moreover, Noordin and Hudaefi (2019), Asutay and Harningtas (2015), and Mohammed et al. (2015) have categorised Zakat as a one of elements of protecting human life for *Maqasid Shariah* attainment in Islamic banks.

Past studies indicated a significant impact of Zakat on society and the economy. Research involving the Zakat effect on poverty in Malaysia (Senadjki & Sulaiman, 2015), Indonesia (Herianigrum et al., 2020; Sari, Beik & Rindayati, 2019), and Bangladesh (Ali et. al. 2019) disclosed that Zakat substantially reduced poverty in the sample's nations. The Zakat is also a part of the faith-related model that demonstrates Islamic values for poverty alleviation. In this vein, Zakat reflects a substantial impact

on economic progress. A study by Suprayitno (2019) examined the effect of Zakat contribution on macroeconomics in Malaysia revealed that Zakat positively and significantly related to economic growth, consumption, and investment. Likewise, a recent study of Jedidia and Guerbouj (2020) investigated the Zakat influence on the economic growth of eight Muslim nations (Senegal, Indonesia, Sudan, Malaysia, Qatar, the UAE, Kuwait, and Saudi Arabia) between 2004 and 2017 highlighted that Zakat catalysed national growth following its emphasis on consumption, investment, or government expenditure. The sample nations were chosen based on their economic income level.

Following the AAOIFI guidelines on CSR disclosure, the provision of Zakat is among the pivotal CSR elements. Menne et al. (2016), Nizar Al-Malkawi and Javaid (2018), Saeed and Alali (2020), and Tuan Ibrahim et al. (2020) conceded that Zakat constitutes a part of CSR activities in organisations including Islamic banks. Such organisations are encouraged to pay Zakat from their profit (like Muslim individuals) in supporting the community with social advantages. As Zakat is regarded as a means of accomplishing *Maqasid Shariah* for *maslahah*, Islamic establishments resembling Islamic banks need to develop social and economic accountability by paying Zakat from their profit (Abu Bakar & Md Yusof, 2015). The obligation to pay Zakat could also reflect Islamic bank commitments and contributions to social needs through CSR activities.

Malaysian Islamic banks actively engage in CSR activities (Jaiyeoba et al., 2018) as their stakeholders anticipate banks to emphasise social objectives beyond profitability (Dusuki, 2008). Most of the Islamic banks utilise their Zakat allocation as a CSR

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activity catalyst to distribute the gathered Zakat to the impoverished. Following Badarulzaman et al. (2016), banking Zakat is paid by bank shareholders while savings Zakat is paid by bank depositors in line with current Islamic bank practices in Malaysia. Half of the Zakat payment from the Islamic banks in Malaysia is handed over to State Islamic Religious Councils (SIRCs) while the remaining portion is distributed by the financial institutions themselves. Regardless, Zakat computation and assessment methods differ across Islamic banks with relevant decisions made by the bank management, BODs, and SC (Badarulzaman et al., 2016; Rosman et al., 2019).

The Zakat contribution could improve organisational performance. Most studies supported the stakeholder theory from an Islamic perspective. For example, a recent study of Tuan Ibrahim et al. (2020) strived to examine the correlation between ethical values evaluated by Zakat disclosure and performance within the Malaysian banking sector from 2010 to 2014. The study sample involved 50 Malaysian banks. The bank financial performance was evaluated using ROA. Resultantly, Zakat demonstrated a positive impact on bank ROA. Meanwhile, a study by Rosman et al. (2019) on Malaysian Islamic banks indicated the Zakat influence on bank financial performance. The study, which was performed through secondary data analysis from the annual reports of 15 Islamic banks, revealed that Zakat contribution significantly affected the bank operating profit and insignificantly influenced the bank ROA and ROE. Nevertheless, recent research by Al-Homaidi (2021) in Yemen disclosed that information on Zakat data significantly and positively impacted the Islamic bank ROA and ROE.

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Saeed and Alali (2020) investigated the Zakat impact on the financial performance of 10 Saudi Arabian banks between 2014 and 2019. Following the study outcomes derived from the regression analysis on the gathered data panel, Zakat positively influenced bank profitability with ROE assessment. Likewise, a study by Nizar Al-Malkawi and Javaid (2018) examined the Zakat impact on financial performance among the non-financial companies listed under the Saudi Arabia stock market between 2004 and 2013. The stakeholder theory was employed to justify the Zakat contribution-performance link. Resultantly, a strong and positive relationship was identified between Zakat and ROE and the bank market value. As a win-win strategy, Zakat catalyses organisational profitability and market value to optimise returns and performance while regarding society as a whole.

Studies of Menne et al. (2016), Sidik and Reskino (2016), and Auliyah and Basuki (2020) on Indonesian Islamic banks complemented findings on the impact of Zakat on bank financial performance. Specifically, Menne et al. (2016) evaluated the effect of CSR practices regarding Zakat and benevolent loans on the Indonesian IFI financial performance by assessing the annual reports of nine Islamic banks between 2010 and 2014. Meanwhile, a study by Sidik and Reskino (2016) encompassed 10 Indonesian Shariah banks between 2011 and 2014. Although both study outcomes indicated that Zakat contribution to IFIs elevates bank profitability, a study by Auliyah and Basuki (2020) involving eight Indonesian Islamic banks from 2014 to 2018 revealed that Zakat significantly and positively influenced ROA and insignificantly and negatively affected ROE.

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Contrary to the aforementioned results, several studies highlighted that bank financial performance insignificantly impacted Zakat contribution. Samad et al. (2015) revealed an insignificant Zakat-performance relationship represented by the Malaysian Islamic bank ROA, ROE, and NPM from 2010 to 2014. Based on the aforementioned outcomes, Islamic banks might have paid Zakat following their own computations or failed to make the payment owing to the lack of enforcement by relevant authorities. Al Azizah, Rito and Choirin (2018) also implied the absence of a correlation between Zakat and Indonesian company ROA and ROE.

Given the presence of significant and mixed outcomes elicited from the Zakat-financial performance link across multiple organisations, Zakat was incorporated into the current study framework to determine the Zakat-Malaysian Islamic bank financial performance relationship.

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Table 2.3
Summary of the Zakat and its Impact on Financial Performance

No.	Authors	Countries	Periods	Methodologies	Empirical Results
1	Rosman et al. (2019)	Malaysia	2011-2018	OLS, Fixed Effect and Random Effect	The results of the study found that Zakat positively influenced financial performance in terms of operating profit. However, Zakat is found to have an insignificance influence on the ROA and ROE of Islamic banks.
2	Menne (2017)	Indonesia	2010-2014	Regression	The results of the study indicated that Zakat generated better financial performance of the banks.
3	Nizar Al-Malkawi and Javaid (2018)	Saudi Arabia	2004-2013	OLS, Fixed Effect and Random Effect	The results of the study found that Zakat has a positive and significant influence on the ROE of firms.
4	Tuan Ibrahim et al. (2020)	Malaysia	2010-2014	Multiple regression	The result of the study reported that Zakat has a positive and significant impact on the ROA of financial institutions in Malaysia
5	Al Azizah et al. (2018)	Indonesia	2013-2017	ANOVA	The findings of the study reported that Zakat does not influence financial performance in terms of ROA and ROE of the firms.
6	Samad et al. (2015)	Malaysia	2010-2014	Correlation	The findings of the study reported that Zakat has insignificant correlation with the NPM, ROA and ROE of Islamic banks.

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Table 2.3 (Continued)

No.	Authors	Countries	Periods	Methodologies	Empirical Results
7	Sidik and Rekino (2016)	Indonesia	2011-2014	Logistic regression	The results of the study indicated that there was a positive and significant relationship between Zakat and the ROE the Islamic banks.
8	Saeed and Alali (2020)	Saudi Arabia	2014-2019	Regression	The findings of the study shown that there was a positive and significant relationship between Zakat and the ROE of banks.
9	Auliyah and Basuki (2021)	Indonesia	2014-2018	Multiple Regression	The results of the study reported that Zakat has a significant positive impact on ROA. However, the result found a negative insignificant impact on the ROE of Islamic bank.
10	Al-Homaidi et al. (2021)	Yemen	2005-2014	Multiple Regression	The study found that information on Zakat data has a significant positive influence on the ROA and ROE of banks.

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2.6.3 Advertising

Most empirical works (Haque et al., 2010; Ahmad & Al-Aidaros, 2017; Che-Ha, Hamzah, Abd Shukor, Mohd Said & Veeriah, 2016; Riaz, Khan & Khan, 2017) proposed that Islamic banks need to utilise holistic and comprehensive marketing techniques in resolving the issues arising from low awareness on Islamic banking products and services for competitive advantage and relevance in the marketplace. In line with the aforementioned studies, specific marketing approaches (advertising) could educate the public on Islamic banking products and expose community members to Islamic principles in daily financial activities.

However, advertisement practices in Islam must be guided by the principle of the Al-Quran and As-Sunnah that encourages the practice of enjoining good and forbidding evil, presenting women in a dignified manner, promoting *halal* products, promoting Islamic values and disseminating truthful messages (Mokhtar & Samsudin, 2015). In addition, Mohammed et al. (2008) emphasised that Islamic banks should educate the public on Islamic bank benefits and its product and service principles through advertising activities as it considered as a part of preservation of *maslahah* of society. It is deemed crucial for Islamic banks to clearly convey the Islamic bank value and quality to the general public. Chauhan and Rasheed (2015) asserted that Islamic bank advertising activities should be served to familiarise customers with Shariah-compliant principles and Islamic bank product features. Meanwhile, a study of Muhammad, Basha and Alhafidh (2019) in the UAE proved that the advertising approaches undertaken by Islamic banks significantly impacted customers' attitudes towards Islamic bank products and services.

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Such marketing techniques would simultaneously optimise bank performance. Following past literature, advertising could elevate the financial performance of banks. Mullineaux and Pyles (2010) examined the advertising expenditure impacts on American bank profitability and market share. Secondary data between 2002 and 2006 were gathered from a regulatory agency called Call Report. The study data were assessed using the fixed-effect model. Conclusively, investment-based expenses on advertising catalyse banks to improve their profitability and market share. Acar and Temiz (2017) who analysed advertising effectiveness by examining its implications on the profitability of 51 Turkish banks between 2007 and 2015 demonstrated that effective advertising would improve bank ROA.

In India, Mulchandani, Mulchandani and Attri (2019) conducted a study on secondary data analysis involved 33 (14 private and 19 public) banks from 2004 to 2017. Resultantly, advertising expenses positively impacted bank financial performance in terms of interest income and ROA. Private banks also consumed lesser time to perceive the impacts of advertising effectiveness on financial performance.

The advertising effectiveness was empirically assessed in other industries. Assaf, Josiassen, Matilla and Cvelbar (2015) and Polemis, Stangos and Tzeremis (2020) aimed to ascertain the advertising-hotel financial performance relationship on a global scale. Resultantly, advertising boosts hotel operational performance. Kim, Jun and Tang (2019) investigated the advertising impacts on the financial performance of 137 public American restaurants from 1991 to 2016. Based on the research outcomes, advertising expenditure catalyses high financial performance involving sales, ROA, and hotel market value. The study of Kim et al. (2019) corresponded to that of Shah et al. (2019)

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and Rahman et al. (2020) who revealed that advertising positively impacted organisational market value in the UK and US respectively.

Notwithstanding, several studies identified an inverse advertising-financial performance relationship. Abdul Hamid, Najibullah and Habibullah (2017) performed a study to investigate the impact of marketing efforts on Malaysian Islamic and conventional banks and subsequent implications on the financial and non-financial performance of banks. A total of five Islamic and five conventional banks were chosen as study samples. The research data were gathered from financial reports ranging between 2008 and 2015. Based on the study outcomes, marketing efforts adversely impacted both the ROA and ROE of Malaysian Islamic and conventional banks. Meanwhile, a study by Meyer and Ujah (2017) examined the effect of advertising cost on organisational financial performance demonstrated that high advertising costs would lower company ROA, retun on sales (ROS), and ROE. Meanwhile, Kim and Morris (2003) determined that excessive advertising expenditure similarly instigated low company stock prices.

Summarily, past empirical studies outlined inconsistent outcomes regarding the advertising-financial performance link. Following the research findings, high advertising expenses would expose customers to relevant products and services and improve organisational financial performance. Another finding implied that advertising negatively impacted financial performance. Advertising was incorporated into this study framework following the inconsistent outcomes to examine the actual findings involving Malaysian Islamic banks.

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Table 2.4
Summary of the Advertising and its Impact on Financial Performance

No.	Authors	Countries	Periods	Methodologies	Empirical Results
1	Mullineaux and Pyles (2010)	US	2002-2006	Fixed effect	The study found that the profitability of banks increases significantly with increased spending on advertising.
2	Acar and Temiz (2017)	Turkey	2007-2015	OLS	The study found a positive correlation between advertising and the ROA of banks.
3	Mulchandani et al. (2019)	India	2004-2017	OLS	The study indicated that high spending on advertising will increase the interest income and ROE of banks.
4	Assaf et al. (2015)	Slovenia and Croatia	2007-2012	Multiple regresssion	The study reported that the spending on advertising has strong significant impact on the sales of firms.
5	Polemis et al. (2020)	90 hotel companies	2010-2019	Regression	The study reported that advertising has a positive effect on the operational performance of banks.
6	Kim et al. (2019)	US	1991-2016	Fixed effect	The study found that advertising has a positive impact on the ROA, sales and market value of firms.
7	Abdul Hamid et al. (2017)	Malaysia	2008-2015	Fixed Effect	The study reported that advertising has a negative impact on the ROA and ROE of banks.
8	Meyer and Ujah (2017)	US	1970-2014	Fixed effect and Tobit	The study found that increase in spending of advertising would reduce the ROA, ROE and ROS of firms.

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Table 2.4 (Continued)

No.	Authors	Countries	Periods	Methodologies	Empirical Results
9	Kim and Morris (2003)	US	1998-2000	ANOVA	The study found that advertising has a negative relationship with the stock price of firms.
10	Rahman et al. (2020)	US	2002-2013	DEA	The study found that advertising has a positive relationship with the stock return and market value of firms.
11	Shah et al. (2019)	UK	1997-2003	Multiple Regression	The study revealed that advertising has a positive effect on the market value of firms.

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2.6.4 Household Financing

Attia (2007) recommended several objectives that related to the family, such as the sequencing of financial aspects. As such, family welfare significantly relies on relevant financial elements. Ibn Ashur (2006) and Attia (2007) implied that the protection of the family institutions as one of the elements of *Maqasid Shariah* attainment. Most of all family-oriented endeavours and activities depend on financial issues involving essential needs: food, home, health, education, and security. Notably, both shelter and transportation are categorised as basic needs from an Islamic viewpoint (Abdul Rasool et. 2011). The perpetual rise of living costs eventually outpaces the increase in earnings and necessitates the act of borrowing to own both shelter and transportation (BNM, 2018). As a financial institution, Islamic banks offer household financing to facilitate the necessary household sectors. use and even asset generation.

Households or consumers commonly denote individuals or families while the household sector implies a crucial economic component (Xiao & Toa, 2020). Meanwhile, household financing defines the act of obtaining financing for personal or family-oriented reasons. Families experience various economic needs to be fulfilled with borrowed money given the availability of multiple household financing sources. Such financing facilitates households to meet essential needs. For example, families and individuals utilise household financing to fund several expense types, such as purchasing a house, which necessitates a mortgage financing with a monthly repayment schedule for the next few decades. The household financing might also include credit cards, auto financing for buying new or used cars, and recreational transportation. Households also obtain financing to fund children's and adults' education, pay medical bills, and complete home improvement projects or urgent

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repairs. Each household strives toward an optimal living standard for one's self and family by acquiring this financing type high life quality.

Following BNM (2018), Malaysian households primarily acquire financing to purchase residential properties and motor vehicles. Approximately 53.7% of the total household financing were with registered banking institutions. Other financing involved the purchase of non-residential properties, personal consumption, financial security investments, and credit card payments. The household constitutes a large portion of the bank statement of financial position. Seho, Ibrahim and Mirakhor (2021) claimed that household sectors attract the largest loan and financing portion in Malaysian banks where both conventional and Islamic institutions are exposed to household sectors at 50% and 64%, respectively. The provision of financing to household sectors might lead to risk exposure given their vulnerability to inflation, unemployment, income and interest rate changes (Nakornthab 2010), and high banking fragility (Charpe & Flaschel, 2013).

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Notwithstanding, a specific household financing level might begin impacting overall macroeconomic outcomes and bank stability. Following past literature, the substantial rise in household financing could result in unstable financial institutions. A study by Prastivi and Anik (2021) on Indonesian Islamic banks examined the impact of financing diversification on bank profitability. Based on the study outcomes, bank profitability could decrease given the focus of Islamic banks on household sectors. Likewise, Hirtle and Stiroh (2007) who examined the retail financing effect on American bank performance revealed that emphasis on retail financing (credit card, consumers loan and mortgage) was associated with significantly lower bank profitability.

Recent research by Nizar and Abdul Karim (2021) examined the household financing and financial stability effects on 37 commercial banks between 2008 and 2015. Resultantly, household financing entailing mortgage and consumer loans reflected a significant and negative impact on the stability of bank financial performance. Bank stability was measured through bank stability indices encompassing, profitability, capital adequacy, asset quality, and liquidity ratios. Notably, the study of Nizar and Abdul Karim (2021) paralleled Nakornthab (2010) where household financing affected the Asian (particularly Malaysian) bank financial stability.

In line with several studies, household financing failed to influence the bank financial performance. For example, a study by Dinc (2018) investigated on the retail (mortgage and consumer) loan impacts on Turkish bank profitability revealed that both mortgage and consumer negatively and insignificantly impacted bank profitability. Likewise, Ametefe, Aboagye and Sarpong-Kumankoma (2011) examined the household sector financing (housing and construction loan)-Ghanaian bank performance relationship. The research outcomes implied that housing and construction financing positively and insignificantly impacted bank ROA. Meanwhile, Chaudhry, Chatrath and Kamath (1995) disclosed a positive and significant correlation between household financing and the American bank financial performance from 1980 to 1985.

Summarily, past empirical works revealed a significant but contradictory household financing-organisational financial performance relationship. Thus, household financing was incorporated into this study framework and tested on the Malaysian Islamic bank financial performance.

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Table 2.5
Summary of the Household Financing and its Impact on Financial Performance

No.	Authors	Countries	Periods	Methodologies	Empirical Results
1	Ametefe et al. (2011)	Ghana	2001-2007	Fixed effect	The study found a positive and insignificant relationship between household financing and the ROA of banks.
2	Prastivi and Anik (2021)	Indonesia	2014-2018	Multiple Regression	The study indicated that high financing in household sectors would decrease the ROA of banks.
3	Dinc (2018)	Turkey	2005-2015	Multiple regression	The results of the study found that consumer financing has a negative insignificant impact on the profitability of banks.
4	Hirtle and Stiroh (2007)	US	1997-2004	Multiple regression	The results of the study revealed that household financing has a negative and significant relationship with the ROE of banks.
5	Chaudry et al. (1985)	US	1977-1985	Multiple regression	The results shown that household financing has a positive and significant impact on the financial performance of banks.
6	Nizar and Abdul Karim (2021)	Malaysia	2008-2015	Fixed Effect	The results of the study indicated that household financing represents by consumer credit and mortgage credit has a negative effect on the bank financial stability performance.
7	Buyukkarabacak and Valev (2012)	37 developed and emerging countries	1990-2007	Random Effect	The finding of the study shown that high level of household financing growth is an essential predictor of banking instability.

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2.6.5 Non-Performing Financing

Asset quality implies a bank management element that requires organisational asset evaluation to identify bank measurement level and credit risk size (Adeolu, 2014). Regarding the traditional role of banks, financing constitutes the bulk of bank assets, including Islamic institutions. Based on traditional bank functions, loans or financing entails a primary proportion of bank assets. Bank operation and performance optimisation require further examination of revenue-generating bank assets. Strategic credit risk management proved pivotal for effective and immediate risk control as high bank financing levels inevitably increased credit risk. Thus, Islamic banks are encouraged to protect their stakeholder's wealth from destructive occurrences. Such circumstances could occur in business and investment environments where major risks could instigate catastrophic damages that may paralyse the national economy and disrupt community members' lives without adequate management (Dusuki & Bouheraoua, 2011). Hence, essentiality of risk management and strategic actions must be undertaken toward prompt and effective risk management in Islamic banks.

The non-performing financing or default or impaired financing ratio were typically utilised to assess bank credit risk management using the non-performing financing proportion-to-total financing amount (Bhattarai, 2017; Ghenimi et al., 2021; Damanhur et al., 2018; Lotto, 2018). The non-performing financing was affected by internal and external factors. Based on recent research (Messai & Jouini 2013; Mpofu & Nikolaidou, 2018; Umar & Sun, 2018; Steahr & Uuskula, 2020), macro and microeconomic elements (GDP and inflation rate) potentially impacted bank non-performing financing. Internal bank-specific factors (higher capitalisation and inadequate operation) similarly influenced bank non-performing financing (Abid, Ouertani & Zouari-Ghorbel, 2014;

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Ghosh, 2015; Kumar, Stauvermann, Patel & Prasad, 2018; Lee & Yahya, 2019). Thus, the bank management is required to exercise caution in credit policy development that boosts rather than lowers bank economic performance. Low bank asset quality, which is typically demonstrated in the non-performing financing value, affects operational and financial performance and a sound economic system. Regarding high non-performing financing values, banks are inclined to reflect negative performance that subsequently impacts bank economic performance. Historically, banking industry failures arose from the insolvency typically associated with significant non-performing financing accumulation (Campbell, 2007). In this vein, inadequate non-performing financing level reduction potentially resulted in bank failure (Samad, 2012) as well as lead to inefficiency of the banks (Saleh, Moradi-Motlagh & Zeitun, 2020).

Akter and Roy (2017) examined the non-performing financing effect on the profitability of banks listed in Dhaka between 2008 and 2013. Resultantly, non-performing financing was negatively and significantly related to bank profitability. Akter and Roy (2017) and Bhattarai (2017) similarly identified a negative association between non-performing financing and the ROA of 14 Nepalese commercial banks from 2010 to 2015. Meanwhile, Etale, Ayunku and Etale (2016) ascertained the non-performing financing-Nigerian bank profitability relationship reflected by ROE. The study assessed the secondary data from listed Nigerian banks between 1994 and 2014. In line with the research analysis, a high non-performing financing level reduced bank ROE. Overall, credit reporting and supervising authorities should be strengthened to reduce the high non-performing financing level in the Nigerian banking industry.

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In Nigeria, Ozurumba (2016) implied that non-performing financing significantly affected the ROA and ROE of three selected Nigerian banks: Union Bank of Nigeria (UBN) Plc, United Bank for Africa (UBA) Plc, and Access Bank Plc. The study utilised secondary data from the annual reports of banks from 2000 to 2013. A study of Ozurumba (2016) paralleled Laryea, Ntow-Gyamfi and Alu (2016) in Ghana where both the bank ROA and ROE adversely impacted by the bank non-performing financing. Meanwhile, Salike and Ao (2018) conducted a study involving 947 Asian banks between 2001 and 2015 investigated the non-performing financing impacts on bank profitability. The fixed-effect model was utilised for study data evaluation. Following the research outcome, non-performing financing significantly and negatively affected the bank ROA. A high non-performing financing level could also imply inadequate corporate practices, lax credit administration processes, and the absence of credit risk management practices. The study findings paralleled that of Kingu et al. (2018) where non-performing financing significantly and positively affected the ROA of Tanzanian banks.

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In Islamic banks, several studies indicated that the Islamic bank asset quality evaluated by non-performing financing ratio proved to be higher than conventional counterparts. For example, a study by Prima Sakti and Mohamad (2018) compared the stability, efficiency, and asset quality of Indonesian Islamic and conventional banks between 2008 and 2012. Resultantly, Islamic banks proved to be stabler than their conventional counterparts. A study by Akram and Rahman (2018) similarly determined a higher asset quality in Pakistani Islamic banks compared to conventional counterparts from 2004 to 2016. Conventional banks should devise a strategy to reduce non-performing financing and to enhance recoveries of previous non-performing financing in order to increase

the quality of the banks' assets. Meanwhile, a study by Isaev and Masih (2017) on Malaysian Islamic banks highlighted higher growth stability and asset quality compared to their counterparts in neighbouring nations. Moreover, the non-performing financing ratio on Malaysian bank Islamic assets falls well below that of conventional loans.

Several empirical works examined the non-performing financing-Islamic bank financial performance relationship on a global scale. Samail, Zaidi, Mohamed and Kamaruzaman (2018) conducted a study involving 12 Malaysian Islamic banks disclosed that the asset quality characterised by non-performing financing substantially affected the bank profitability proxied by ROA. Sanwari and Zakaria (2013) who examined the asset quality-financial performance link among 74 Islamic banks in 16 nations worldwide from 2000 to 2009 revealed that the asset quality represented by non-performing financing negatively and significantly affected the Islamic bank ROA and ROE.

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Conversely, Alshebmi et al. (2020) recently investigated the association between the non-performing financing and the profitability of 12 Saudi Arabian commercial banks. Secondary data were gathered from annual reports between 2009 and 2018. An insignificant and negative bank non-performing financing-ROA relationship was identified. In Buchory (2015), non-performing financing was positively related to the bank non-performing financing and ROA.

Overall, the aforementioned studies on the non-performing financing-financial performance correlation reflected mixed outcomes following the presence of both positive and negative relationships. In this vein, non-performing financing was

incorporated into this study framework to be assessed in Malaysian Islamic bank financial performance.

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Table 2.6
Summary of the Non-Performing Financing and its Impact on Financial Performance

No.	Authors	Countries	Periods	Methodologies	Empirical Results
1	Akter and Roy (2017)	Bangladesh	2008-2013	OLS	The study found that non-performing financing has a negative significant impact on the NPM of bank.
2	Bhattarai (2017	Nepal	2010-2015	OLS	The study found a negative correlation between NPF and the ROA of banks.
3	Etale et al. (2016)	Nigeria	1994-2014	OLS	The study indicated that high level of NPF will reduce the ROE of banks.
4	Ozurumba (2016)	Nigeria	2000-2013	OLS	The study reported that NPF has a negative and significant relationship with the ROA and ROE of banks.
5	Salike and Ao (2018)	12 Asian Countries	2001-2015	Fixed effect	The study reported that NPF has a significant negative impact on the ROA of banks.
6	Samail et al. (2018)	Malaysia	2010-2016	Random effect	The study found that NPF has negative a significant impact on the ROA of banks.
7	Sanwari and Zakaria (2013)	16 countries	2000-2009	Fixed effect	The study revealed that NPF negatively impact on the ROA and ROE of banks.
8	Alshebmi et al. (2020)	Saudi Arabia	2009-2018	OLS	The study found a negative and insignificant relationship between NPF and the ROA of banks.
9	Buchory (2015)	Indonesia	2014	OLS	The study found that NPF has a positive and significant relationship with the ROA of banks.

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Table 2.6 (Continued)

No.	Authors	Countries	Periods	Methodologies	Empirical Results
10	Kingu et al. (2018)	Tanzania	2017-2015	OLS, Fixed and Random effect	The study revealed that NPF has a siginificant negative relationship with the ROA of banks.
11.	Laryea et al. (2016)	Ghana	2005-2010	Fixed effect	The study reported that NPF has a significant negative relationship with the ROA and ROE of banks.

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2.6.6 Operational Efficiency

According to Kalluru and Bhat (2009), operational or cost efficiency denotes organisational proficiency to prevent negative consequences and optimise resource usage for high-quality customer product and service delivery. Organisational operational efficiency depends on particular aspects involving competent and productive employees, utilised capital (Gupta & Raman, 2020; Abdur Rahman & Mazlan, 2014), digitised intervention (Lam, Yeung & Cheng, 2016; Mohapatra & Mohanty, 2017), and organisational size (Deb, 2019). Assessing bank's operational efficiency could help bank management to improve managerial performance. It assists investor in making investment decisions whether to participate in financial activities. Regulators are also interested in banking efficiency since the performance of the banking sector has significant impact on other parts of the economy (Hussien, 2003).

Dietrich and Wanzenried (2014), Petria, Capraru and Ihnatov (2015), and Bougatef (2017) implied operational efficiency as an indicator to measure company managerial efficiency. Meanwhile, Jaafar and Manarvi (2011) classified operational efficiency as the element of measuring Islamic managerial quality under the CAMELS rating system. It is supported by Noordin and Hudaefi (2019) and Asutay and Harningtas (2015) where operational efficiency also constitutes a measurement aspect for Islamic bank managerial quality. The studies also categorised operational efficiency as one of elements of protection of stakeholder's wealth under *Maqasid Shariah* principles.

Banks perceivably practise operational efficiency in the wake of low-cost and high-quality banking service delivery (Allen & Rai 1996; Brack & Jimborean, 2010). Particularly, operational efficiency was attainable when banks employed adequate

resource integrations while limiting operational costs to the desired level. Ghosh and Sanyal (2019) and Ayayi and Sene (2010) also revealed operational efficiency to be the factor determining banking sustainability, efficiency, and productivity. Following Beck et al. (2000), the high bank efficiency originating from income generation and allocation facilitated productivity and financial progress. Shah and Jan (2014) further denoted that operational efficiency was commonly proxied by the cost-to-total income ratio. Such ratios were evaluated to depict the optimal management implications on cost reduction and revenue generation. A high ratio demonstrated the bank inefficiency to mitigate operational costs and subsequent business losses, whereas high bank operational costs or low revenue might result from organisational operational risks (Abdullah, Shahimi & Ismail, 2011).

Various researchers highlighted an organisational operational efficiency-economic performance relationship. Azad, Raza and Zaidi (2018) recently examined the operational efficiency-financial performance link among four Pakistan oil and gas companies by evaluating their financial reports between 2010 and 2015. The company operational efficiency negatively and significantly affected organisational ROE, which would enhance its profitability through low operational costs. Meanwhile, Batchimeg (2017) who investigated the factors impacting the profitability of Mongolian listed companies across various sectors revealed that operational efficiency significantly and negatively impacted the ROA of Mongolia industries.

Concerning banking sectors, Buchory (2015) examined the operational efficiency-banking profitability relationship represented by ROA. Secondary data were extracted from the financial reports of 26 regional development banks in Indonesia. Based on the

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research findings, operational efficiency negatively and significantly affected the bank ROA. A study by Christaria and Kurnia (2016) on the Indonesian banking sectors listed under the Indonesia Stock Exchange between 2012 and 2014 strived to examine the operational efficiency impacts on the bank profitability proxied by ROA. Research data were gathered from the annual report of 27 sample banks through multiple regression for the analysis outcomes. Resultantly, the operational efficiency proxied by operational expenditure to operating income ratio substantially impacted banking profitability. The finding of Adam, Safiri and Wahyudi (2018) corresponded to that of Christaria and Kurnia (2016) where the Indonesian bank operational efficiency between 2012 and 2016 adversely influenced bank profitability. Such studies indicated that if the banks can manage its operational efficiency by reducing its operating cost, the banks will enhance their financial performance.

Sreesha (2014) conducted a study on Indian banks between 2009 and 2013 implied that banks should increase their efficiency by reducing the bank operating costs to elevate the bank financial performance with regards to ROA in the short term. Additionally, operational efficiency insignificantly affected the market performance assessed by Tobin Q. Likewise, a study by Shah and Jan (2014) encompassing 10 commercial Pakistani banks revealed that operational efficiency (as measured by total operating expenses-to-total income) adversely influenced the bank ROA and net income. Adelopo, Lloydking and Tauringana's (2018) recent research entailing 123 commercial banks under the Economic Community of West African States (ECOWAS) also implied that operational efficiency negatively impacted the bank ROA.

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Olson and Zoubi (2011) conducted a study encompassing MENA nations investigated the operational efficiency-bank profitability link between 2000 and 2008. Panel data analysis was employed through the random effect model for outcome evaluation. Resultantly, operational efficiency negatively and significantly affected the financial performance proxied by bank ROA and ROE similar to Dietrich and Wanzenried's (2014) findings on the profitability determinants of 10165 commercial banks from 118 nations. Notably, operational efficiency adversely impacted the bank ROA and ROE. Studies of Olson and Zoubi (2011) and Dietrich and Wanzenried (2014) paralleled Petria, Capraru and Ihnatov (2015) who revealed that bank ROA and ROE were impacted by the operational efficiency proxied by the cost-to-total income ratio.

Several empirical works investigated the operational efficiency-company market value performance correlation. A study by Gill, Singh, Mathur and Mand (2014) involving 244 Indian companies aimed to investigate the operational efficiency-market performance relationship from 2008 to 2012. A significant operational efficiency-company market value was duly determined. The finding of Gill et al. (2014) corresponded to Njagi, Aduda, Kisaka and Iraya (2017) who revealed a negative and significant operational efficiency-Kenyan organisational market value relationship from 2008 to 2013.

Conversely, a study by Chiu and Huang (2011) on the occupancy rate and operational efficiency effects on hotel industries worldwide implied that high operational efficiency does not necessarily ensure high organisational profitability. Meanwhile, Baougatef (2017) highlighted a positive and significant operational efficiency-ROE relationship among commercial Tunisian banks from 2003 to 2014.

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As the aforementioned correlations depicted inconsistent outcomes, operational efficiency was integrated with this study framework to evaluate its impact on the Malaysian Islamic bank financial performance.

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Table 2.7
Summary of the Operational Efficiency and its Impact on Financial Performance

No.	Authors	Countries	Periods	Methodologies	Empirical Results
1	Azad et al. (2018)	Pakistan	2010-2015	OLS	The study found that operational efficiency has a negative and significant relationship with the ROE of firm.
2	Dietrich and Wanzenried (2014)	118 countries	1998-2012	GMM	The study revealed operational efficiency is one of determinants of profitability that has a negative impact on the ROA and ROE of banks.
3	Buchory (2015)	Indonesia	2014	OLS	The study found that operational efficiency has a negative and significant impact on the ROA of banks.
4	Christaria and Kurnia (2016)	Indonesia	2012-2014	Multiple regression	The results indicated that operational efficiency negatively and significantly associated with ROA.
5	Adam et al. (2018)	Indonesia	2012-2016	Multiple regression	The findings of the study indicated that operational efficiency negatively affected the ROA of banks.
6	Petria et al. (2015)	EU27 countries	2004-2011	Multiple regression	The study revealed operational efficiency is one of determinants of profitability that has a negative impact on the ROA and ROE of banks
7	Sreesha (2014)	India	2009-2013	Multiple regression	The study found that operational efficiency has a negative and significant relationship with the ROA of banks.

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Table 2.7 (Continued)

No.	Authors	Countries	Periods	Methodologies	Empirical Results
8	Gill et al. (2014)	India	2008-2012	Fixed and Random effect	The results of the study found that operational efficiency is negatively related to market value.
9	Njagi et al. (2017)	Kenya	2008-2013	Fixed effect	The results of the study revealed that there was a negative and significant relationship between operational efficiency and share price.
10	Chiu and Huang (2011)	Taiwan	2008	DEA	The study indicated that operational efficiency is not related to the profitability of firms.
11	Olson and Zoubi (2011)	MENA	2000-2008	Random effect	The study found a negative and significant effect of operational efficiency on both ROA and ROE indicators.
12	Bougatef (2017)	Tunisa	2003-2014	GMM	The study found that operational efficiency has a negative and significant relationship with ROA while a positive and significant relationship with ROE.
13	Adelopo et al. (2018)	ECOWAS	1999-2013	Fixed effect and Random effect	The study found a significant and negative effect of operational efficiency on both ROA and ROE indicators.
14	Batchimeg (2017)	Mongolia	2012-2015	Random and Fixed effect	Study found that the operational efficiency has a significant negative effect on ROA.

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2.7 Shariah Committee Effectiveness

The incorporation of Shariah committee (SC) into the Shariah governance framework of Islamic banks distinguishes them from conventional counterparts. The SC, which is accountable for reviewing and monitoring bank operations to ensure Shariah compliance plays a pivotal role as internal Islamic banks. According to BNM, every Malaysian Islamic bank is required to follow Shariah Governance Policy Document (SGPD) in appointing SC within their banks, which constitutes members with diverse academic backgrounds involving Shariah, accounting, and law. Essentially, SC serves to ensure that the products and services offered to stakeholders comply with Shariah principles (Hamza, 2013). Grassa (2013) and Mohammed and Muhammed (2017b) argued that Islamic banks could lose their stakeholders' confidence and experience low performance if the SC reported any internal activities that did not adhere to Shariah principles. According to SGPD, SC primarily aims to offer objective and sound advice to IFIs in ensuring the Shariah compliance of their goals and operations, businesses, and affairs and activities as follows:

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i. providing decisions or advice to IFIs on the application of any Shariah Advisory Council (SAC) ruling or standards on Shariah matters that relate to IFI operations, business, affairs, and activities;
ii. providing decisions or advice on matters that require SAC-based reference;
iii. providing decisions or advice on IFI operations, business, affairs, and activities, which may trigger Shariah non-compliance;
iv. deliberating and affirming a Shariah non-compliance finding with any relevant functions;

v. endorsing a rectification measure to address Shariah non-compliance.

The explicit impact of SC on the Islamic bank financial performance has been extensively discussed by Musibah and Wan Yusoff Alfattani (2014), Nomran et al. (2018), Baklouti (2020), Jabari and Muhamad (2021), and Isa and Lee (2020). The aforementioned studies incorporated the resource dependency theory to justify the SC and performance link. Baklouti (2020) who recently examined the SC characteristics impacts on the financial performance of Islamic banks in 42 MENA countries outside GCC and non-Islamic counterparts from 2011 to 2018 highlighted that the SC conducting more meetings would enhance the bank ROA and ROE. It is because SC has more time to supervise and find solution for the problems encountered by the banks.

Jabari and Muhamad (2021) investigated the impacts of gender diversity among SC members on the Islamic bank financial performance in Indonesia and Malaysia. Study data from 19 Islamic banks between 2010 and 2018 were gathered for hypothesis testing. The resource dependency theory was also underpinned to justify the variable relationships. Perceivably, Islamic banks with high gender diversity in the SC could depict high financial performance through ROA and ROE representations. Based on this result, it is believed that gender diversity may increase to the appreciation for different Islamic jurisprudence opinions and prevent a single member from dominating the SC's decisions. Nomran et al.'s (2018) study also examined the SC characteristics impacts on the Malaysian Islamic bank financial performance in terms of ROA and ROE. A total of 15 financial establishments were selected by evaluating data between 2008 and 2015 with the GMM estimator. Based on the research findings, a significant

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association was identified between SC size, doctoral qualification, changes in the SC composition, and bank financial performance.

Buallay (2019a) investigated CG effectiveness by examining the relationship between CG and the financial performance of Islamic and conventional banks. A total of 127 banks were chosen in MENA countries between 2007 and 2016. Resultantly, the Shariah governance represented by SC characteristics impacted bank financial performance in terms of ROA and ROE. Parallel to Buallay (2019a), Aslam and Haron (2020) similarly disclosed that SC (part of the Shariah governance of Islamic banks) positively affected the bank ROA and ROE. The study was performed by evaluating the annual reports of 129 Islamic banks in 29 Islamic nations within the Middle East, South Asia, and Southeast Asia from 2008 to 2017. Meanwhile, Mollah and Zaman (2015) who investigated the SC impact on the financial performance of 85 Islamic banks among 25 countries between 2005 and 2011 revealed that SC positively impacted the Islamic bank ROA and ROE in performing a supervisory role.

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Conversely, Nawaz (2016) identified an inverse SC size-financial performance relationship in terms of the market value of the 174 Islamic banks. Ajili and Bouri's (2018a) research, which employed 90 Islamic bank samples between 2010 and 2014, demonstrated that high SC quality induced low profitability that impacted accounting disclosure. Khalil and Taktak (2020) also identified that size and SC expertise insignificantly impacted bank performance. Al-Sartawi (2019) and Khan and Zahid (2020) indicated a negative relationship between SC (regarding the number of attended meetings) and bank financial performance. One of the reasons underlying the

aforementioned findings is that Islamic banks might incur high costs to pay the relevant SC.

Abdul Rahman and Bukair's (2013) research on 53 Islamic banks among GCC countries aimed to examine the impact of SC characteristics on social responsibility disclosure. Following the research outcomes, experienced SC would offer more CSR-based information for Islamic banks. The SC attributes are deemed pivotal in ascertaining the social responsibility disclosure level within Islamic banks. Meanwhile, studies of Abdul Rahman and Bukhair (2013), Mallin et al. (2014), Farook et al. (2011), El Hussein, (2018), and Ali Bukhari et al. (2020), revealed that SC implies the key factor determining Islamic social responsibility adoption and implementation in Islamic banks.

The SC reflects a strong coercive power on Islamic bank operations. As such, SC might influence the social accountability of Islamic banks towards their stakeholders as BNM has empowered SC to guide and develop multiple Shariah-compliant banking practices. Thus, SC members encompassing religious scholars on Islamic law and business practices might significantly impact social practice adoption from Islamic perspectives and tailor the behaviours of Islamic banks in line with Islamic principles.

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2.8 Gaps in the Literature

This study identified substantial knowledge gaps from the literature review. Most scholars highlighted the impact of financial and economic factors on bank financial performance. Perceivably, Islamic banks should emphasise non-financial factors to forecast Islamic bank financial performance (Zarrouk et al., 2016). The current study

emphasised the Shariah compliance impact on Islamic bank financial performance. Much research on the Shariah compliance-financial performance relationship has examined the nature, causality, and possible importance to organisations. The fundamentals of this relationship proved to be positive, negative, neutral, or inconclusive. Hence, this study incorporated Shariah compliance indicators involving Shariah-compliant financing, Zakat, advertising, household financing, non-performing financing, and operational efficiency as independent variables under the *maslahah* elements of *Maqasid Shariah* dimensions, unlike past studies. Notably, past scholars highlighted the lack of an optimal Islamic bank CSR measurement. Auliyah and Basuki (2021) claimed that the current Islamic bank social measurement dimensions extensively employed in conventional banks and other organisations proved irrelevant to Shariah-compliant firms given their non-adherence to Shariah principles. Meanwhile, the social measurement dimensions implemented by past research were derived from multiple references to determine Islamic bank CSR practices (Wan Jusoh et al., 2014; Adnan 2015). On top of that, Wan Jusoh and Ibrahim (2020) proposed that Islamic banks should identify specific and appropriate social guidelines, standards, and frameworks for their institutions.

Theoretical and empirical study evidence implied that Shariah compliance, which individually represents Shariah-compliant financing, Zakat, advertising, household financing, non-performing financing, and operational efficiency that facilitates Islamic bank financial performance, could reflect distinct behaviours in Islamic banks given the capital structure and principles that vary from their conventional counterpart. Hence, this research aimed to bridge the aforementioned literature gap with data on Malaysian Islamic banking. Regarding IFIs, past research on SC as a moderator is limited,

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particularly in Malaysia. Several studies examined the indirect SC effect on organisational performance. For example, Neifar, Salhi and Jarboui (2020) assessed the effect of a bank SC constituting religious and ethical principles on the board effectiveness-GCC Islamic bank financial performance relationship from 2008 to 2017. The study outcomes indicated that SC moderated the board effectiveness-bank financial performance relationship. Eldaia, Hanefah, Marzuki and Shatnawi (2020) similarly conducted a local study to examine the moderating effect of SC on the audit committee characteristics-Malaysian Takaful performance association. Resultantly, SC moderated the audit committee-financial performance correlation. The aforementioned studies indicated that SC could delegate their functions and roles across their attributes to review more aspects of bank activities, ensure high Shariah compliance, and increase organisational financial performance. Also, recent research by Mohamed Ibrahim, Yahya and Abdalla (2015), Ahmed, Amran and Islam (2018), and Ajili and Bouri (2018b) also applied SC as a moderator in the relationships of other variable contexts.

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Kabir and Thai (2017) and Velte (2019) examined the moderating effect of CG characterised by BOD on the CSR-financial performance correlation. As part of the CG mechanism, BOD power could strengthen the social activities-financial performance relationship. Nevertheless, past empirical works emphasised direct SC-financial performance and social activities-financial performance relationships with no emphasis on the SC influence as part of a Shariah CG on the Shariah compliance-Malaysian Islamic bank financial performance relationship. This study strived to bridge the knowledge gap in social responsibility literature by investigating the moderating effect of SC on the Shariah compliance-Islamic bank financial performance correlation. Observably, SC could delegate their functions and roles across relevant attributes

(similar to BOD) to review more aspects of business activities, ensure higher Shariah compliance, and increase organisational financial performance. Overall, the current study conclusively filled the literature gaps in past literature based on the aforementioned discussions.

2.9 Underpinning Theories and Concept

2.9.1 Stakeholder Theory

Based on the stakeholder theory, organisations need to depend on specific target groups for sustainability (Freeman, 1984). Both internal management and external parties, such as suppliers, customers, governments, investors, communities, and competitors are deemed essential for the organisations. Following Figure 2.5, a group of stakeholders engage in an organisation to reap benefits with no prima facie priority where one set of interests benefits over another (Donaldson & Preston, 1995). This theory also implied the essentiality of relevant parties towards organisational success and performance (Freeman, 1994; Clarkson,1995). In other words, organisations should regard all stakeholder interests in every decision to attain organisational goals.

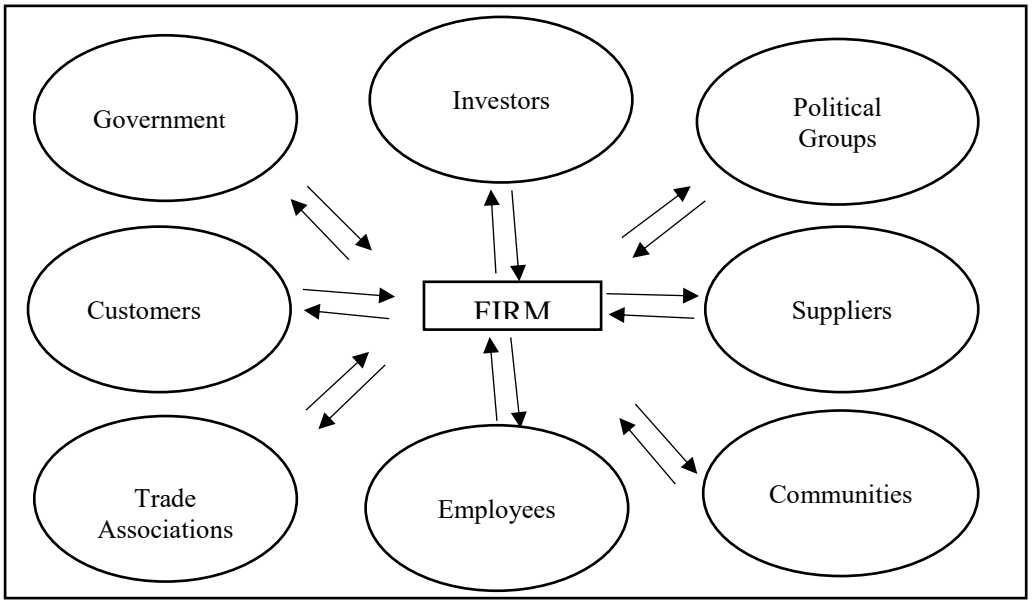

Figure 2.5 *Stakeholder Model*
Source: Donalson and Preston (1995)

Donaldson and Preston (1995) categorised the stakeholder theory into three parts: instrumental, descriptive, and normative. From instrumental stakeholders' perspectives, organisations would address stakeholder concerns only when they parallel profit maximisation goals. In other words, the instrumental approach explores a specific stakeholder management-company performance connection. The descriptive approach emphasises past, present, and future company and stakeholder activities to create predictive plans that involve stakeholder management. Meanwhile, the normative approach attempts to interpret the establishment of fundamental moral and philosophical principles.

Stakeholder management implies one of the primary stakeholder theory principles. In Freeman (1984), stakeholder management denotes the organisational capacity to identify stakeholder backgrounds, their respective interests, and objectives and ability to impact organisations. In this vein, the management could comprehend the procedures relevant to the stakeholders and deduce optimal decisions that align stakeholder interests with company processes. Harrison and St. John (1996) mentioned that stakeholder management might mitigate the adverse impacts of conflicting interests among stakeholders.

The interest of stakeholders from different companies varies among one another. Arguably, companies could elevate their reputation and establish customer trust for high financial performance by addressing stakeholder interests (Famiyeh, 2017; Park, 2017). This theory denoted that organisations must regard the aforementioned variation to effectively promote social practices across organisations (Ullmann, 1985; Carroll,

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1991). Following Ullmann (1985), social and environmental information should be disclosed by companies to sustain their rapport with stakeholders.

Overall, the stakeholder theory could be further extended to justify the Shariah compliance-Islamic bank financial performance relationship. Islamic banks are established to provide products, services and operation in protecting the needs of stakeholders especially Muslim community. As expected by stakeholders of Islamic banks, such institutions should place emphasis on stakeholder interests by integrating their social and Islamic values with economic development (Dusuki & Abdullah 2007a). Most empirical studies in social responsibility towards stakeholders to enhance the financial performance in multiple organisations, including Islamic banking institutions supported this theory (Arshad et al., 2012; Feng et al., 2015; Hafez, 2015; Menne et al., 2016; Park, 2017; Famiyeh, 2017; Galdeano et al., 2019; Platonova et al., 2018; Devie, et al., 2018; Ling, 2019). The study outcomes are in line with the stakeholder theory where the satisfaction of various stakeholder groups significantly influences organisational performance. In other words, firms should demonstrate social accountability for multiple stakeholder types for optimal company financial performance. Islamic banks should emphasise stakeholder interests by incorporating their social roles and Islamic obligations into the bank economic development objectives. Such financial institutions should also interact with stakeholders to demonstrate high financial performance. Thus, Islamic banks that fail to fulfil stakeholder interests might result in low stakeholder support, organisational reputation, and economic sustainability.

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2.9.2 Resources Dependency Theory

According to Eldaia et al. (2020), an optimal CG system through effective board committee members could induce high organisational performance. The resource dependency theory explores CG, specifically board committee members' roles in terms of the CG system. Pfeffer and Salancik (1978) who developed the theory proposed that companies rely on immediate resources for operational sustainability. Based on the resource dependency theory, organisations that strive to succeed must constitute board committee members and management who could establish external links for minimal dependence and enable companies to obtain necessary resources (Pfeffer & Salancik, 1978). This theory assumes that board committee members function as a crucial connection between organisations and external resources for higher performance (Pfeffer, 1973).

The resource dependency theory has been widely utilised in past CG studies (Mwenja & Lewis, 2009; Bhatt & Bhattacharya, 2017; Mishra & Kapil, 2018; Duppati, Scrimgeour & Sune, 2019). Specifically, companies require different resources for effective operations that are not viable without human capital in the form of board committee members or directors (Aduda, Chogii & Magutu, 2013; Afza & Nazir, 2014). The theory primarily emphasises the social capital of individual committees, such as the resources offered by members for optimal organisational performance (Bell, 2018). Hence, such members become resource providers and effective task performance with a high level of human capital. The resource dependency theory also forecasts that board committee members could offer expertise and experience, access to external resources, and strategic business decisions with counselling and advisory roles (Pfeffer & Salancik, 1978; Farag et al., 2018; Rahayu & Sabir, 2019).

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Overall, the aforementioned theory could be extended to justify the anticipated moderating impact of SC on the Shariah compliance-performance relationship given its broad utilisation as a theoretical underpinning in the connection of SC and performance in Islamic banks (Nomran et al. 2018; Isa & Lee, 2020; Baklouti, 2020; Jabari & Muhamad, 2021) and SC-social responsibility relationships (Musibah & Wan Yusoff Alfattani, 2014). The presence of SC as a primary component in Islamic bank CG ensures the Shariah compliance of business operations parallel to bank objectives while catalysing high bank performance. In this vein, the resource dependency theory implies the SC could transfer valuable resources by contributing their expertise and skills at board-level negotiations and decision-making and exercising their power to regulate and guide Islamic banks to attain their real objectives.

2.9.3 *Maqasid Shariah* Concept

Maqasid Shariah literally denotes the objectives of Islamic law. The term *Maqasid Shariah* originates from two words: *Maqsid* and *Shariah. Maqsid* implies "objective", "wisdom", "intent", or "purpose" while the combination of *Maqsid* and *Shariah* denotes "path", "way", "a path to a watering place", or "Islamic law". Notably, the term Shariah is extensively utilised in the Holy Quran.

Allah states:

ثُمَّ جَعَلْنَاكَ عَلَىٰ شَرِيعَةٍ مِنَ الْأَمْرِ فَاتَّبِعْهَا وَلَا تَتَّبِعْ أَهْوَاءَ الَّذِينَ لَا يَعْلَمُونَ

Then We put you on the (right) way of religion: so follow you that (way), and follow not the desires of those who know not. (Al-Quran, Al-Jathiyah:18)

Also, Allah states:

لِكُلٍّ جَعَلْنَا مِنْكُمْ شِرْعَةً وَمِنْهَاجًا

To each among you We have ordained a code of law and a way of life (Al-Quran, Al-Maidah:48)

The aforementioned verses highlight that each Muslim is prescribed rules and regulations involving religious rituals and daily life by Islam. Muslim jurists and researchers on *Usul al-Fiqh* (principles of jurisprudence) have developed a system of higher objectives that follow Islamic purposes and aim to enlighten humankind and conserve the fundamentals of Shariah. This system of objectives refers to *Maqasid Shariah.*

As the co-founders of *Maqasid Shariah*, Al-Juwaini (d.478AH/1185CE) and Al-Ghazali have classified the terms into three categories: *daruriyat* (necessity)*, hajjiyat* (complement), and *tahsiniyat* (embellishment). The three primary categories were developed by Al-Juwaini while Al-Ghazali further extended and categorised *daruriyat* into five primary components: protection of religion, human life, mind, lineage, and wealth (see Figure 2.6) in his book called *al-Mustafa*. According to Dusuki and Abdullah (2007b), the bottom level or necessity constitutes the core element to be fulfilled compared to the complement and embellishment categories. Based on Al-Juwaini and Al-Ghazali, the theory has been fundamentally employed in *Maqasid Shariah* by prominent scholars, including Al-Shatibi (d. 790AH/1389CE) who later became the leader of *Maqasid Shariah* experts (Lamido, 2016; Shinkafi & Ali, 2017; Ishak & Asni, 2020).

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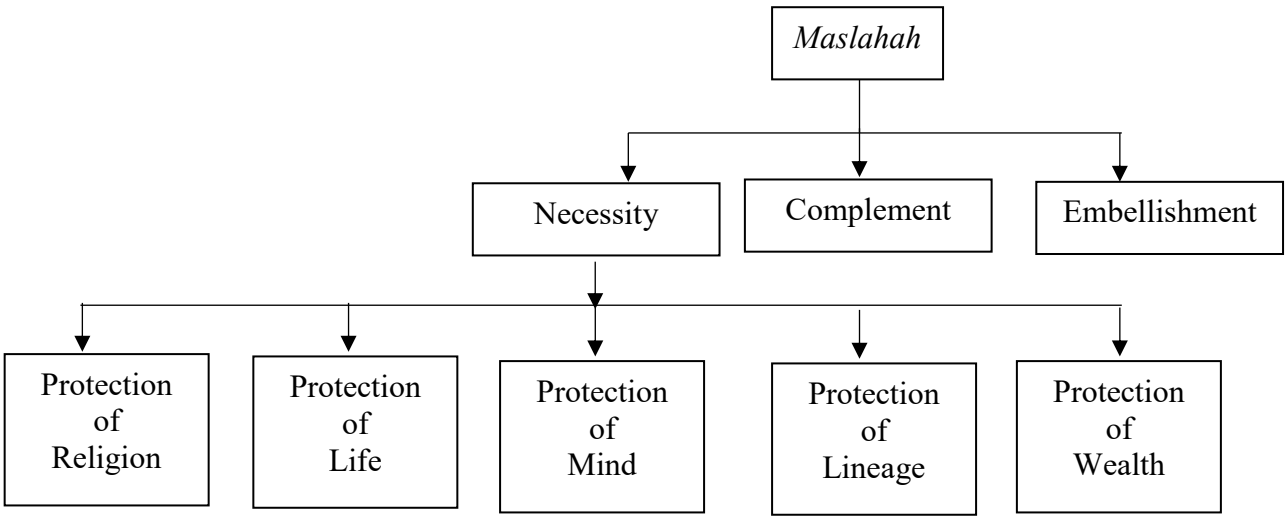

Figure 2.6
Theoretical Framework of Al-Ghazali's Maqasid Shariah
Source: Islahi, (2010); Mohammed et al., (2015); Lamido, (2016); Said et al., (2018); Jan et al., (2018); Siddiqi et al., (2019)

Abdul Rahman (2003) and Arsad et al. (2015) outlined that the *Maqasid Shariah* acknowledge the benefits of mankind on matters in this life and the hereafter. Likewise, Raysuni (2011) and Awang and Asutay and Jusoh (2014) denoted *Maqasid Shariah* as a regulation that fulfils and facilitates social needs and welfare, respectively. The *Maqasid Shariah* generally emphasises the protection of personal and social benefits to conserve the important element of social protection, which includes protection of religion, human life, mind, lineage, and property. As such, every action that protects or strengthens such elements notably serves the *maslahah* of human beings.

Maqasid Shariah concept is extensively elaborated in past studies where it represents the core element of Islamic banking and finance (Mohammed 2009; Al-Mubarak & Osmani 2010; Mohammed & Shahwan, 2013; Hurayra, 2015). Also, the *Maqasid Shariah* concept was applied in past research to bank practices involving product application and management (Azli et al., 2011; Aziz & Noh, 2013; Dikko & Abdul

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Ghani, 2015). The primary reason underlying its conceptual implementation in Islamic banking and finance is the motivation underpinning the emergence of an Islamic banking system to limit and comply with Shariah provisions in offering Islamic financial products and services. This system also aims to fulfil socioeconomic objectives (Dusuki & Abdullah, 2007a). As such, Islamic banks that operate under an Islamic economic system consider socioeconomic conditions for a just economic development.

The *Maqasid Shariah* concept and CSR are interrelated where social elements are well-known in Islam given their prescription in Islamic principles (Dusuki & Abdullah, 2007b; Nalla, 2011). In Dusuki and Abdullah (2007b), business activities must be Shariah-adherent although businesses and trade are generally permitted in Islam. The wealth derived from business operations should prioritise social welfare beyond profit maximisation to ensure fair trade. Despite encouragement to produce wealth from business activities, Muslims must generate revenue from legal and appropriate sources. As all resources ultimately belong to God, Muslims must function as vicegerents and utilise the resources for the benefit of mankind (Abdul Rahman, 2010).

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2.10 Summary of the Chapter

This chapter provides an overview of Islamic banking and the concept of CSR. The chapter also reviews financial performance, Shariah compliance and underpinning theories of the study. It also provides a basis for building a research model that can be used to examine the relationship between Shariah compliance variables and financial performance of the Islamic banks.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter elaborates on the research methodology, which begins with the theoretical framework of the study (see Section 3.2) and research design (see Section 3.3). The operational definition and variable measurements of the study, content validity, hypothesis development, and population of the study are highlighted in Sections 3.4, 3.5, 3.6, and 3.7, respectively. Meanwhile, data sources and data collection procedure, data analysis and study models are outlined in Sections 3.8, 3.9, and 3.10, respectively. Section 3.11 concludes the chapter.

3.2 Theoretical Framework

The theoretical framework (see Figure 3.1) was constructed to develop the variable correlations. The stakeholder theory and resources dependency theory were incorporated as the research framework foundation following Figure 3.2. According to stakeholder theory, all stakeholders are interdependent (Freeman, 2010). The business managers have a moral responsibility to operate for the interest of all their stakeholders by taking care of their main shareholders and the community. Thus, management of Islamic banks need to ensure aspects of operations as well as activities of the banks are complying with Shariah principles as expected by most of Muslim stakeholders of the banks. Meanwhile, resource dependency implies that when an organization appoints an individual to a board, it expects the individual will come to support the organization, will concern himself with its problems, will variably present it to others, and will try to aid it (Pfeffer & Salancik, 1978). Thus, based on this theory, it can be commonly estimated that the effectiveness of a SC would recommend the proper components of

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Shariah compliance quality in its operations and further enhance the financial performance of Islamic banks.

The study was initiated by categorising the Shariah compliance variables based on *maslahah* of *Maqasid Shariah* elements as suggested by Attia (2005), Ibnu Ashur (2006) and Noordin and Hudaefi (2019). The aforementioned elements of measurement were adapted from Mohammed et al. (2008) who pioneered the social performance measures under *Maqasid Shariah* for Islamic banks. Then, the study tests the relationship between such independent variables and dependent variables i.e financial performance. The following model component illustrates the moderating variables with SC effectiveness as the moderator between Shariah compliance and the Islamic bank financial performance. Two control variables (size and leverage) were also incorporated. The theoretical framework of the study is illustrated as follows:

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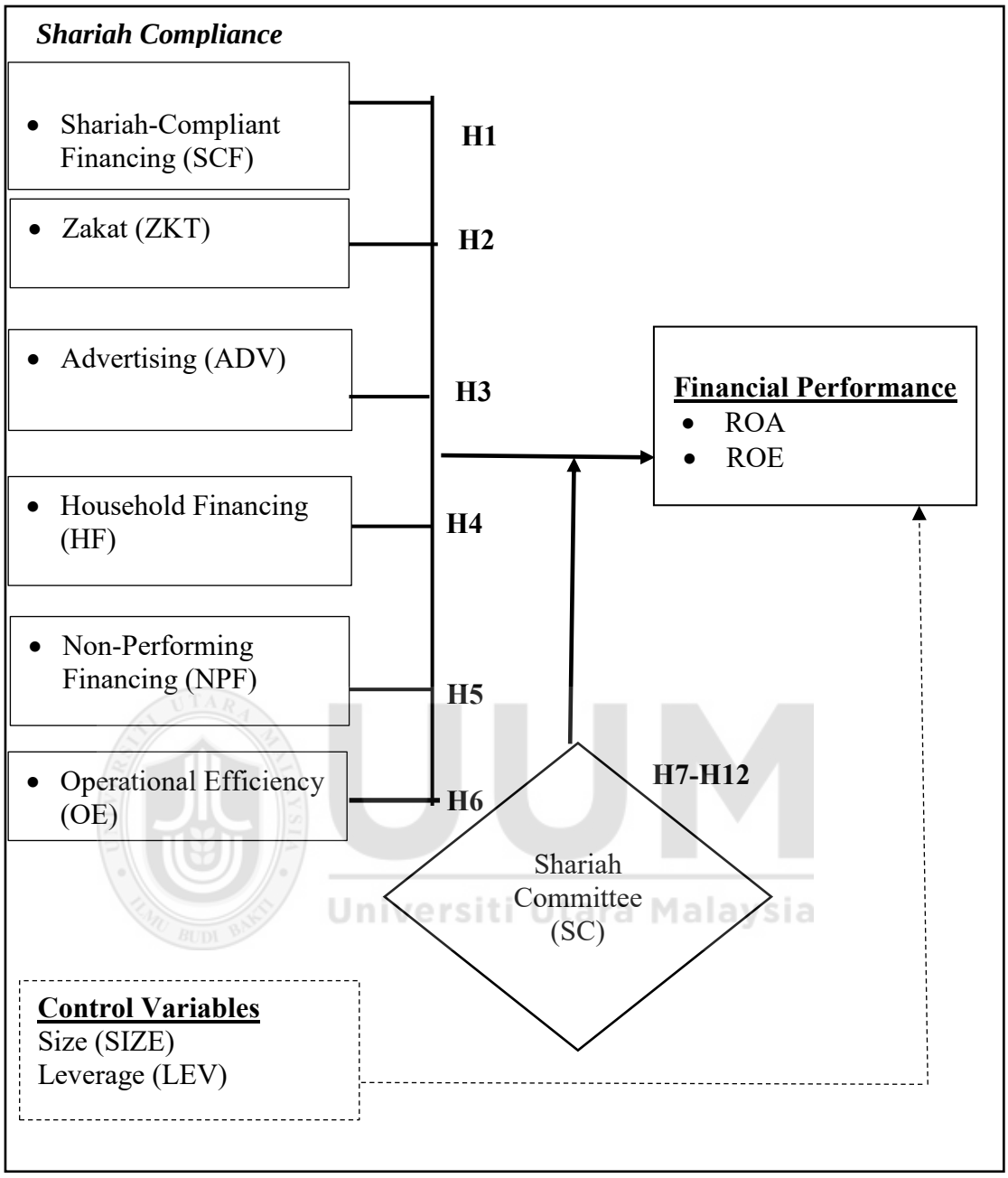

Figure 3.1
Theoretical Framework

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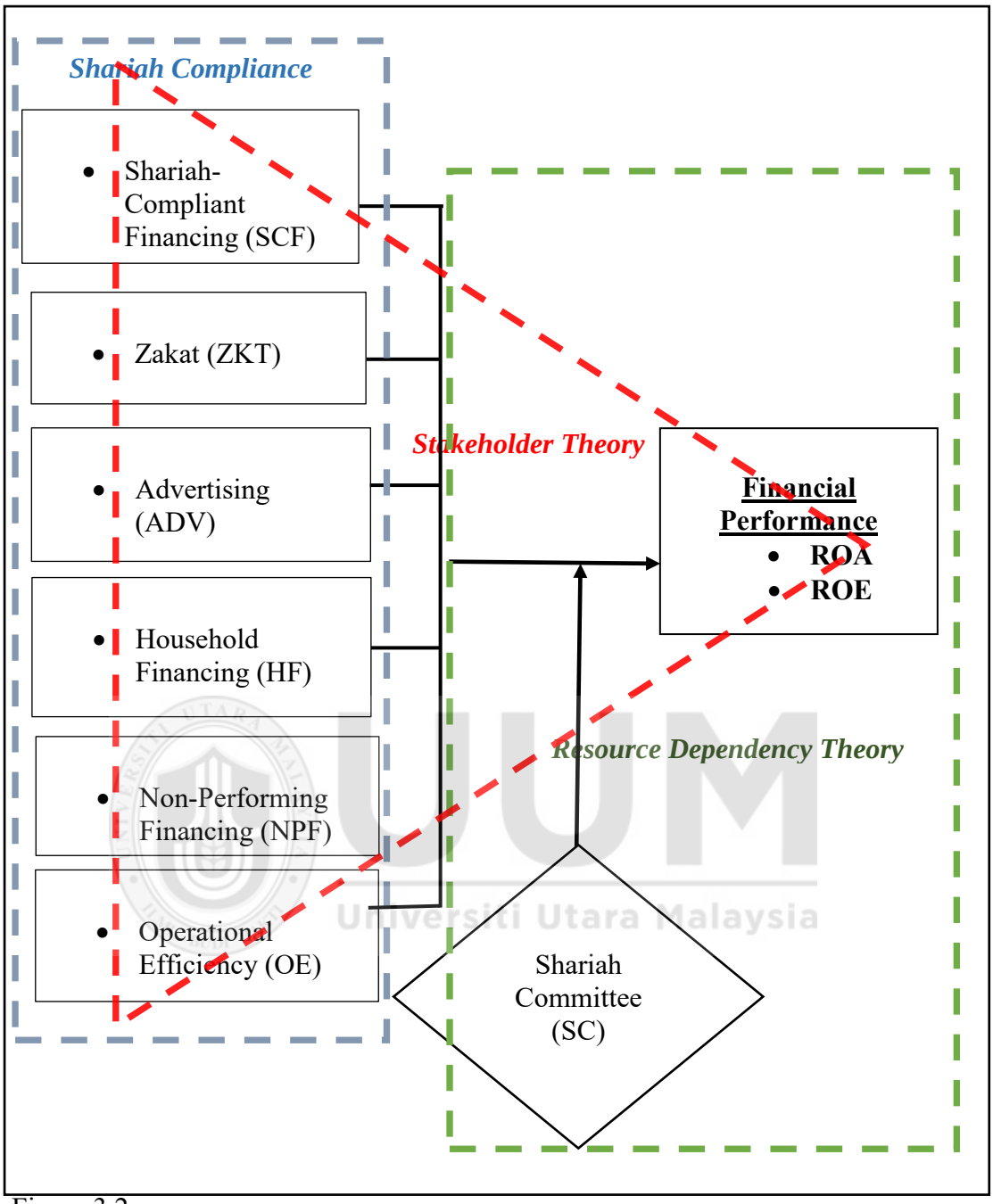

Figure 3.2
Related Theories Model with Theoretical Framework

3.3 Research Design

This quantitative explanatory research applied correlational methods. The study correlations highlighted the essential variables associated with the research problems.

Specifically, the relationship between Shariah compliance and financial performance was empirically evaluated with SC effectiveness as the moderating variable.

The current study also performed hypothesis testing: a process where the researcher justifies the correlation between variables and assesses the statistical hypothesis. Panel data were analysed in this study with panel regression and hierarchical panel regression models to attain the research objectives.

3.4 Operational Definition and Measurement of Variables

Following Figure 3.1, the study framework incorporates a number of research variables: two dependent variable measurements, six independent variable measurements, two control variable measurements, and a moderator variable.

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3.4.1 Dependent Variables

The dependent study variable implied financial performance with indicators represented by ROA and ROE. In Mallin et al. (2014), ROA and ROE are extensively employed measures in bank performance and sustainable growth. The ROA ratio was computed by dividing net profit by average total assets while ROE was computed by dividing net profit by average shareholder equity. This study emphasised financial performance assessment with the aforementioned accounting-based measure proxies. The ROA and ROE proxies have been broadly employed in banking-related financial performance literature (El Mousaid & Boutti, 2012; Arshad et al., 2012; Mallin et al., 2014; Hafez, 2015; Cornett et al., 2016, Menne et al., 2016; Platonova et al., 2018; Buallay, 2019b; Shakil et al., 2019; Nizam et al., 2019; Ho et al., 2019). Essentially, two financial ratios (ROA and ROE) were incorporated to measure the financial

performance as each constitutes specific advantages as discussed in Chapter 2. Table 3.1 outlines the dependent study variable measurement.

Table 3.1
Measurement of Dependent Variables

Variables	Measurement	Sources
Financial Performance	**Return on Asset:** Net Profit / Average Total Asset x 100 **Return on Equity:** Net Profit / Average Shareholder's Equity x 100	Mallin et al. (2014), Cornett et al. (2016), Shakil et al. (2019), Buallay (2019b), Baklouti, (2020), Tuan Ibrahim et al. (2020), Jabari and Muhamad (2021).

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3.4.2 Independent Variables

Independent variables or predictors influence the dependent counterpart. Variables denote the primary focus of interest in positive or negative associations with the dependent variable. The independent study variable components are based on the six Shariah compliance elements: Shariah-compliant financing, Zakat, advertising, household financing, non-performing financing and operational efficiency. These elements were adapted from Attia (2005), Ibnu Ashur (2006) and Noordin and Hudaefi (2019). The element of measurement indicators was first presented by Mohammed et al. (2008) and categorised under *Maqasid Shariah* dimensions whereby proposed to attain the *maslahah* for the stakeholders of Islamic banks. Table 3.2 outlines the measurement of independent variablesof the study.

Table 3.2
Measurement of Independent Variables

Variables	Measurement	Sources
Shariah-compliant financing	$\frac{\text{Finance Income}}{\text{Total Income}} \times 100$	Mohammed et al. (2008), Mohammed et al. (2015), Asutay and Harningtas (2015), Noordin and Hudaefi (2019).
Zakat	$\frac{\text{Zakat}}{\text{Net Asset}} \times 100$	Mohamed Ibrahim et al. (2004), Noordin and Hudaefi (2019)
Advertising	$\frac{\text{Advertising Expenses}}{\text{Total Expenses}} \times 100$	Hosen et al. (2019), Noordin and Hudaefi (2019) Wan Ibrahim and Ismail (2020)
Household financing	$\frac{\text{Household Financing}}{\text{Total Financing}} \times 100$	Dinc (2018), Nizar and Abdul Karim (2021)
Non-performing Financing	$\frac{\text{Non-performing Financing}}{\text{Total Financing}} \times 100$	Sanwari and Zakaria (2013), Ozurumba (2016), Samail et al. (2018), Kingu et al. (2018), Ghenimi et al. (2021)
Operational Efficiency	$\frac{\text{Total Expenses}}{\text{Total Revenue}} \times 100$	Sreesha (2014), Gill et al. (2014) Dietrich and Wanzenried, (2014), Buchory (2015)

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3.4.3 Moderating Variables

The SC effectiveness could be assessed by specific characteristics. Past research has applied the number of SC (Abdul Rahman & Bukair 2013; Grassa et. al 2014; Noordin & Kassim, 2019; Baklouti, 2020: Khan & Zahid, 2020), meetings attended by SC, (Grassa et al., 2014; Ghanem & Ariff, 2016; Baklouti, 2020; Khan & Zahid, 2020), their education level (Ajili & Bouri, 2018b; Neifar et al., 2020; Abdul Rahman & Bukair, 2013), and accounting and finance backgrounds (Grassa et. al 2014; Khan & Zahid, 2020) as the indicators of SC effectiveness and quality in Islamic banks.

Following Basiruddin and Ahmed (2020) and Ajili and Bouri (2018b), four SC effectiveness characteristics were integrated for SC index measurement. This study utilised a dichotomous procedure for each SC attribute where 1 is assigned when a criterion is met and 0 otherwise. A score for the SC index was calculated by summing the values assigned to the relevant characteristics and converting it into percentage form following Ajili and Bouri (2018b) and Neifar et al. (2020). Table 3.3 presents the SC variable measurement based on several characteristics: number of SC, number of meetings attended by SC, doctoral qualification and accounting or finance background.

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Table 3.3
Measurement of Moderating Variable

Variable	Characteristics	Measurement	Sources
Shariah Committee	Number of Shariah committee	1 for banks with 5 of more SC members and 0 otherwise	Noordin and Kassim (2019), Abdul Rahman and Bukair 2013), Basiruddin and Ahmed (2020).
	Number of meeting attended	1 if the average number held by SC is equal to or higher than median and 0 otherwise	Basiruddin and Ahmed (2020), Ghanem and Ariff (2016), Khan and Zahid (2020).
	Doctoral qualification	1 if an SC member hold a doctorate and 0 otherwise	Ajili and Bouri (2018b), Neifar et al. (2020), Abdul Rahman and Bukair (2013).
	Accounting or Finance background	1 if an SC member hold a degree in Accounting or Finance and 0 otherwise	Basiruddin and Ahmed (2020), Khan and Zahid (2020).

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3.4.4 Control Variables

The first control variable in this study implied bank size, which was measured by the total bank assets. As Malaysian Islamic banks vary in size, this study controlled the size effects to analyse the independent-dependent variable relationship. Bank size, which denotes the total bank asset by year, was measured as a natural log of total assets. This

proxy was extensively employed by Hafez (2015), Park (2017), Devie et al. (2018), Nizar Al-Malkawi and Pillai (2018), Platonova et al. (2018), Buallay (2019b), and Sekhon and Khaturia (2019) to control the size effect on financial performance. Resultantly, the size-organisational financial performance proved to be significant.

As the second control variable in this study, leverage has been broadly employed in several studies of the financial performance (Platonova et al. 2018; Devie et al., 2018; Buallay, 2019b). Based on these empirical works, debt impacted organisational financial performance. Company leverage was evaluated by Platonova et al. (2018), Devie et al. (2018), and Miralles-Quiros et al. (2019) by dividing total liabilities-by-total assets. This ratio is also described as the debt ratio. A positive impact might minimise cash flow and organisational control to reveal more of the market as the debt ratio affects company outcomes. Table 3.5 presents the measurement of control variables.

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Table 3.4
Measurement of Controlling Variable

Variables	Measurement	Sources
Size	The natural logarithm of total asset of the banks	Hafez (2015), Park, (2017), Platonova et al. (2018), Nizar Al-Malkawi and Pillai, (2018), Devie, et al. (2018), Buallay, (2019b), Sekhon and Khaturia (2019).
Leverage	$\frac{\text{Total Liabilities}}{\text{Total Assets}} \times 100$	Devie et al., (2018), Platonova et al. (2018) Miralles-Quiros et al. (2019)

3.5 Content Validity

A minimum of five experts is recommended and it is not necessary if more than ten for content validity purpose (Lynn, 1986). Table 3.4 outlines the distribution of experts consulted to validate all the study variables. The experts were chosen based on banking and teaching experiences and Islamic banking publications.

Table 3.5
Distribution of Experts

Experts	Type
Expert 1	Practical Expert
Expert 2	Practical Expert
Expert 3	Practical Expert
Expert 4	Academic Expert
Expert 5	Academic Expert

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The content validity report was retrieved after several days. Three of the professionals were Malaysian Islamic bank practitioners (one SC and two senior Shariah executives) while the remaining two were accounting and Islamic banking professors from Malaysian public universities. The experts were required to rate each variable item for content validation using the following scales: very high valid, highly valid, valid, less valid, or not valid at all. Overall, most of the items were agreed upon by the experts while several counterparts were eliminated. Amendments were made based on expert reviews and feedback pre-data collection.

3.6 Hypotheses Development

The research hypotheses were primarily developed based on the following theories: stakeholder theory and resource dependency theory. The study hypotheses are proposed below based on the research objectives.

3.6.1 The Relationship between Shariah-Compliant Financing and the Financial Performance of Islamic Banks

Past studies indicated that Shariah-compliant business practices could enhance organisational financial performance (Akguc & Al Rahahleh, 2018; Pepis & Jong, 2019). In terms of Islamic banks, Shariah or religious compliance is the most important factor that renders Islamic banks favourable to customers (Sayani & Miniaoui, 2013; Ltifi et al., 2016; Iqbal et al., 2018; Kaakeh et al., 2019; Abdul Hadi & Muwazir, 2020).

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Islamic banks only engage in Shariah-compliant activities particularly Shariah-compliant financing. As previously mentioned, the primary reason underlying the prohibition of *riba* in business transactions (particularly in Islamic banking systems) involves justice as only one party would benefit from the earned interest while the other would suffer from contract-induced losses. Alternatively, the Islamic banking system prevents unjustness among contractual parties. The PLS concept encompassing interest-free *Mudarabah* and *Musharakah* contracts guide typical Islamic banking products (Beck et al., 2013; Alshattarat & Atmeh 2016; Ahroum et al., 2020). This contract is also regarded as a partnership contract between banks and borrowers.

Much research examined the impact of equity-based financing on bank performance. In Abbas and Arizah (2019), PLS financing entailing *Mudarabah* and *Musharakah*

contract positively influenced the financial performance represented by the Islamic bank ROA and ROE. Meanwhile, Chowdhury and Mohd Rasid (2017), Dewi (2019), and Pratama and Febriansyah (2020) revealed that *Mudarabah* and *Musharakah* positively and significantly impacted bank ROA. Syahri and Haryito (2020) similarly disclosed that *Mudarabah* and *Musharakah* positively impacted the bank ROE. Concerning debt-based financing, Almanaseer and Alslehat (2016), Afkar (2017), Yusof and Isa (2021), and Ijaiya et al. (2021) asserted that financing contracts encompassing *Murabahah, Ijarah, Qard, and Bai Ajil* positively influenced the Islamic bank financial performance. Regardless, Afkar (2017) highlighted that *Mudarabah* financing insignificantly impacted profitability as the financing contract offered by the *Mudarabah* scheme failed to impact the bank financial performance.

By providing such social and economic tools of financing as an alternative to *riba*-oriented financing to its customers, Islamic banks are believed to fulfil the interest of Muslim community who endeavor for justice of the society. The aforementioned argument affirmed the proposition developed by the stakeholder theory that relates well with all stakeholders, specifically with Muslim customers, in preserving their religion through Shariah-compliant products and services for high profitability. This study developed the following hypotheses following past literature:

> *H1a: There is a positive and significant relationship between Shariah-compliant financing and the ROA of Islamic banks in Malaysia.*

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H1b: There is a positive and significant relationship between Shariah-compliant financing and the ROE of Islamic banks in Malaysia.

3.6.2 The Relationship between Zakat and the Financial Performance of Islamic Banks

As the most important instrument for the social redistribution of income and wealth, Zakat is imposed on Islamic business operations for wealth purification (Lewis, 2001; Abu Bakar & Abd Ghani, 2011). The Zakat contributions could also facilitate companies towards fulfilling their obligations to both God and the society at large. Regarding the real Islamic banking and financing objectives toward social welfare and benefit attainment, Zakat could be regarded as a means of generating revenues while considering community welfare as a whole.

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Multiple studies have examined whether Zakat influenced company performance. Past literature on the influence of Zakat on financial performance was performed by Al-Homaidi et al. (2021) who disclosed that Zakat contributions by Islamic banks positively impacted their financial performance, which was proxied by ROA and ROE. Meanwhile, Tuan Ibrahim et al. (2020) and Auliyah and Basuki (2021) revealed that Zakat positively affected organisational ROA. Saeed and Alali (2020) and Nizar Al-Malkawi and Javaid (2018) implied that Zakat positively influenced the organisational ROE. Resultantly, Zakat positively boosted company profitability as an exceptional means of increasing financial performance while simultaneously regarding society as a whole.

According to Tuan Ibrahim et al. (2020), stakeholder demands specific activities from the company in evaluating the behavior of an ethical company. Ethics implementation can be seen from a company's responsibilities to the surrounding environment, increasing the welfare of the surrounding community, as well as social welfare responsibility to its employees. Increasing the welfare of the surrounding community can be performed by paying Zakat.The aforementioned arguments proved the proposed stakeholder theory from an Islamic perspective where Islamic banking and finance institutions should place emphasis on stakeholder interests by integrating their social and Islamic values with economic development when communicating with stakeholders and performing in business growth (Dusuki, 2008). The following hypotheses were proposed in line with past literature:

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H2a: There is a positive and significant relationship between Zakat and the ROA of Islamic banks in Malaysia.

H2b: There is a positive and significant relationship between Zakat and the ROE of Islamic banks in Malaysia.

3.6.3 The Relationship between Advertising and the Financial Performance of Islamic Banks

From Islamic point of view, advertisements should, besides being commercial, remind audiences to prescribe Islamic values and increase positive attitudes and strong emotions in them that could lead to good behaviour (Mokhtar & Samsudin, 2015). Marketing awareness campaigns, such as advertising activities could familiarise customers with the principles of Shariah compliance and features of Islamic bank

products (Chauhan & Rasheed, 2015) following Jan et al. (2019) where advertising increases income and customers' awareness and knowledge by influencing short-term and long-term consumer preferences. In Ahmad and Al Aidaros (2017), Islamic banks must measure marketing effectiveness and customer satisfaction to sustain market relevance. Such approaches could substantially impact customers' attitudes towards Islamic banking products and services (Muhammad, Basha & Alhafidh, 2019).

Various studies identified the essentiality of marketing methods, such as advertising on company performance (Nath et al., 2010; Assaf et al., 2015; Acar & Temiz, 2017; Kim, Jun & Tang, 2019; Shah, Akbar, Ahmad & Stark, 2019; Rahman, Rodriguez-Serrano & Hughes, 2020). In this vein, organisations could enhance their financial performance by optimising marketing competence through effective advertising approaches.

According to Polonsky & Hyman (2007) all stakeholder interests should be regarded and incorporated into organisational advertising strategies and tactics. The aforementioned discussions proved the proposal of stakeholder theory that relating well with stakeholders especially customers will lead to performance enhancement. The following hypotheses were developed based on past study outcomes:

H3a: There is a positive and significant relationship between advertising and the ROA of Islamic banks in Malaysia.

H3a: There is a positive and significant relationship between advertising and the ROE of Islamic banks in Malaysia.

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3.6.4 The Relationship between Household Financing and the Financial Performance of Islamic Banks

As previously mentioned, Islamic banks facilitate households through house and vehicle financing, personal loans, and credit cards. The household financing enables customers to manage their living costs and improve their lifestyles and that of their families. Several prior empirical studies have examined the relationship between household financing and financial performance. Most of the previous scholars found an inverse relationship between household financing and the financial performance of banks (Hirtle & Stiroh, 2007; Dinc, 2018; Prastivi & Anik, 2021; Nizar & Abdul Karim, 2021).

Under the stakeholder theory, it is deemed pivotal to balance stakeholder or customer needs, for economic benefits. Thus, this study hypothesised that household sector financing negatively impacted the Islamic bank financial performance. The following hypotheses were developed based on the aforementioned arguments:

H4a: There is a negative and significant relationship between household financing and the ROA of Islamic banks in Malaysia.

H4b: There is a negative and significant relationship between household financing and the ROE of Islamic banks in Malaysia.

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3.6.5 The Relationship between Non-Performing Financing and the Financial Performance of Islamic Banks

Based on conventional bank roles, financing constitutes a large proportion of bank assets, including that of Islamic banks. High bank financing rates would lead to credit risk, which is measured by the non-performing financing-to-total gross financing ratio. The decrease in doubtful loans predicts high-quality banking assets. As such, a high non-performing financing ratio indicated high banking credit risk (Ghenimi et al., 2020).

Several empirical studies conceded that high non-performing financing lowered the financial performance of banks. Sanwari and Zakaria (2013), Laryea et al. (2014), and Ozurumba (2016) demonstrated that high non-performing financing potentially reduces both bank ROA and ROE. Bhattarai et al. (2017), Samail et al. (2018), and Salike and Ao (2018) disclosed that non-performing financing adversely affected ROA, whereas Etale et al. (2016) revealed that non-performing financing negatively and significantly impacted the bank ROE.

In accordance with the theory of stakeholders that focus on the company's view of the various layers of stakeholders (Mallin, 2016). Under this theory, banks will conduct activities as expected by stakeholders by mitigating credit risk (Hanim et al., 2011) and implementing risk management to reduce non-performing loans to banks (Haneef et al., 2012). Any increase in the non-performing financing level could lower organisational performance, which is deemed logical as financial institutions need to keep more provisions and compensate defaulted clients. This study developed the following hypotheses following the aforementioned observations:

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H5a: There is a negative and significant relationship between the non-performing financing and the ROA of Islamic banks in Malaysia.

H5b: There is a negative and significant relationship between the non-performing financing and the ROE of Islamic banks in Malaysia.

3.6.6 The Relationship between Operational Efficiency and the Financial Performance of Islamic Banks

Banks function to minimise or manage their expenses and generate outputs without compromising their quality. Theoretically, financial institutions that could efficiently manage their expenditure demonstrate high profitability. The total operating income-to-total operating expense ratio is regarded as the proxy of bank operational efficiency. In this vein, operational efficiency enables organisations to save costs and elevate performance (Shou et al., 2018).

A high operational efficiency represents the bank ability to effectively manage operating expenses and affect profitability. Past literature has identified an operational efficiency-financial performance correlation. Olson and Zoubi (2011), Dietrich and Wanzenried (2014), Petria et al. (2015), and Adelopo et al. (2018) determined a significant and negative operational efficiency-financial performance relationship proxied by ROA and ROE indicators. Nevertheless, several studies revealed a negative impact of operational efficiency on organisational ROA (Sreesha, 2014; Christaria &

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Kurnia, 2016; Bougatef, 2017; Batchimeg, 2017; Adam et al., 2018) and ROE (Azad et al., 2018).

According to Hasan & Asutay, (2010) stakeholder theory could be applied in the allocation of resouces efficiently for the benefit of the stakeholders of the banks. Such stakeholder management is classified under the *maslahah* of the shareholders of the IFIs. In this regard, companies that operate efficiently by minimizing costs would enhance organisational financial performance. This study developed the following hypotheses:

H6a: There is negative and significant relationship between operational efficiency and the ROA of Islamic banks in Malaysia.

H6b: There is negative and significant relationship between operational efficiency and the ROE of Islamic banks in Malaysia.

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3.6.7 Moderating Effects of SC Effectiveness on the Relationship between Shariah Compliance and the Financial Performance of Islamic Banks

The empirical outcomes derived from the Shariah compliance-financial performance entity relationship proved to be inconsistent (Ahmed & Khatun, 2013; Mollah & Zaman; 2015; Nawaz, 2016; Lusyana & Sherif, 2017; Ajili & Bouri, 2018a; Akguc & Al Rahahleh, 2018; Ullah & Khanam, 2018; Pepis & Jong, 2019; Al-Sartawi, 2020; Khalil & Taktak, 2020). Therefore, this study proposed SC effectiveness as a moderator to moderate the Shariah compliance-financial performance association.

Farook et al. (2011), Mallin et al. (2014), and Ali Bukhari (2020) stated that SC could influence the social accountability of Islamic banks towards various stakeholders. Additionally, the presence of SC is pivotal in customising and monitoring Islamic bank social behaviours based on Islamic laws and principles for optimal levels of social practices and activities. This is mainly because the SC members encompass religious scholars with expertise in Islamic law and business practices (Rahman & Bukair, 2013). Also, the Islamic bank SC would ensure Shariah compliance to minimise the difference of interest between stakeholders and the Islamic bank management.

Following past research, SC effectiveness impacted the bank financial performance. Rahman and Bukair (2013), Mollah and Zaman (2015), Nomran et al. (2018), and Jabari and Muhamad (2021) revealed that SC effectiveness regarding their specific characteristics positively and significantly impacted the bank financial performance. Meanwhile, Grassa and Matoussi (2014), Baklouti (2020) and Aslam and Haron (2020), asserted that an effective SC who attends regular meetings might facilitate the Islamic bank financial performance. Conversely, Nawaz (2016), Ajili and Bouri (2018a), and Al-Sartawi (2019) revealed that SC negatively influenced Islamic bank financial performance. Specific empirical studies employed the SC effectiveness variables as a moderator to monitor internal company decisions for improved bank performance (Iryani, Yadiati, Supardi & Triyuwono, 2019; Neifar et al., 2020; Eldaia et al., 2020; Siswanti et al., 2021).

Based on previous discussions, the SC within Islamic bank CG might counter the negative impact and strengthen the social reponsibilty-Islamic bank financial performance association following Kabir and Thai (2017) and Velte (2019) where BOD

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power (as part of the CG mechanism) strengthened the social responsibility-financial performance relationship. Notably, SC who works independently of the BOD and top bank management and are present in BOD meetings ensures Shariah compliance in all bank transactions and practices (Rahman & Bukair, 2013; Mohd Thas Thaker et al., 2018). Therefore, the resource dependency theory implies the SC could transfer valuable recources by contributing their expertise and skills in promoting Shariah compliance and regulate Shariah compliance quality following Islamic principles in Islamic banks for high bank financial performance. The following study hypotheses were developed:

H7a: The SC effectiveness moderates the relationship between Shariah-compliant financing and the ROA of Islamic banks in Malaysia.

H7b: The SC effectiveness moderates the relationship between Shariah-compliant financing and the ROE of Islamic banks in Malaysia.

H8a: The SC effectiveness moderates the relationship between Zakat and the ROA of Islamic banks in Malaysia.

H8b: The SC effectiveness moderates the relationship between Zakat and the ROE of Islamic banks in Malaysia.

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H9a: The SC effectiveness moderates the relationship between advertising and the ROA of Islamic banks in Malaysia.

H9b: The SC effectiveness moderates the relationship between advertising and the ROE of Islamic banks in Malaysia.

H10a: The SC effectiveness moderates the relationship between household financing and the ROA of Islamic banks in Malaysia.

H10b: The SC effectiveness moderates the relationship between household financing and the ROE of Islamic banks in Malaysia.

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H11a: The SC effectiveness moderates the relationship between non-performing financing and the ROA of Islamic banks in Malaysia.

H11b: The SC effectiveness moderates the relationship between non-performing financing and the ROE of Islamic banks in Malaysia.

H12a: The SC effectiveness moderates the relationship between operational efficiency and the ROA of Islamic banks in Malaysia.

H12b: The SC effectiveness moderates the relationship between operational efficiency and the ROE of Islamic banks in Malaysia.

3.7 Population of the Study

All the Malaysian Islamic banks presented in Table 3.6 were selected as study population. The list of Malaysian Islamic banks was derived from the official BNM website in 2020. The list of current Malaysian Islamic banks is presented as follows:

Table 3.6
List of Malaysian Islamic Banks

No.	Particulars	Type	Ownership
1.	Bank Muamalat Malaysia	Full-fledged	Local
2.	Bank Islam Malaysia	Full-fledged	Local
3.	MBSB Bank	Full-fledged	Local
4.	Al-Rajhi Banking & Investment Corporation	Full-fledged	Foreign
5.	Kuwait Finance House	Full-fledged	Foreign
6.	Affin Islamic Bank	Subsidiary	Local
7.	Alliance Islamic Bank	Subsidiary	Local
8.	AmIslamic Bank	Subsidiary	Local
9.	CIMB Islamic Bank	Subsidiary	Local
10.	Public Islamic Bank	Subsidiary	Local
11.	Hong Leong Islamic Bank	Subsidiary	Local
12.	Maybank Islamic	Subsidiary	Local
13.	RHB Islamic Bank	Subsidiary	Local
14.	HSBC Amanah Malaysia	Subsidiary	Foreign
15.	OCBC Al-Amin Bank	Subsidiary	Foreign
16.	Standard Chartered Saadiq	Subsidiary	Foreign

Source: BNM (2020)

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3.8 Data Sources and Data Collection Procedures

This study solely employed secondary data that were elicited from the annual reports of all the 16 (full-fledged and subsidiary) Islamic banks listed in Table 3.10 between 2010 and 2019 for outcome analysis. 10-year periods were selected as suggested by Baltagi (2013) maximum periods of micro-panels is rarely exceeding 10 years. The data source was complemented with information from individual bank websites and other online financial databases. The analysed variables implied a combination of financial ratios and disclosure indices. The ratio validation and acceptability utilised for Shariah

compliance, SC index, and financial performance were assessed by garnering expert views through feedback and validating processes (see Section 3.5).

3.9 Data Analysis

The current study employed panel data analysis with SPSS version 25, STATA version 16, and EVIEWS 10 version software for data evaluation purposes. Several diagnosis tests involving outliers, multicollinearity, homoscedasticity, autocorrelation, and cross-sectional dependence were performed before panel regression and hierarchical panel regression analyses.

3.9.1 Descriptive Test

Specific statistical methods were utilised to summarise the data findings for descriptive analysis through the mean, median, standard deviation, minimum and maximum of dependent and independent variables, and moderator.

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3.9.2 Diagnosis Test

The diagnostic tests performed on the data are justified in this section. Several diagnosis tests entailing outliers, multicollinearity, homoscedasticity, autocorrelation, and cross-sectional dependence were conducted before multivariate regression and hierarchical regression analyses.

3.9.2.1 Outliers

The following step in data management involved multivariate outlier detection pre-data evaluation. Outliers are observations with dissimilar combinations of features from other observations. Hair, Black, Babin and Anderson (2014) defined outliers as an

extreme response that could unduly influence the multivariate analysis outcomes. Meanwhile, Sekaran and Bougie (2016) implied outliers as an illogical response that could substantially affect the study outcomes. Outliers could arise in any distribution and indicate either measurement error or an abnormally distributed population. As such, this study applied the Mahalanobis distance values to identify data outliers.

3.9.2.2 Multicollinearity

A multicollinearity test ascertains how independent variables are interrelated in a given model. In the presence of an extreme interconnection between two variables, one such variable would be omitted to allow its counterpart to justify changes in the explained variable. The correlation matrix and variance inflation factor (VIF) tests were extensively employed to detect multicollinearity, a problem arising in the correlation matrix when the values indicate 0.90 and above, in the data outcomes (Pallant, 2010; Tabachnick & Fidell, 2013). This test refers to a relationship between two or more independent variables of sufficient magnitude with the potential to adversely impact regression parameters. Meanwhile, the VIF is performed as the correlation matrix between variables does not necessarily detect multicollinearity (Hamilton, 2009). The VIF denotes the impact other independent variables reflect on the standard error of regression coefficients. As collinearity problems potentially exist with a VIF value exceeding 10 (Hair et al., 2014), this study applied both the correlation matrix and VIF to test for multicollinearity problems in the research data.

3.9.2.3 Homoscedasticity

Research data are considered homoscedastic if the variance of error terms (ε) appears constant over a range of independent variables (Hair et al., 2014). A fundamental

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regression model requires the error term within the regression function to be homoscedastic or in equal variance across all periods and locations. Heteroscedasticity arises when the variance of errors is not independently and identically distributed over the examined observations. In panel data, the variance could differ within observations through time and instigate group-wise heteroscedasticity issues even if the variance of errors is constant between cross-sectional observations (Baum, 2001). Arguably, disregarding the presence of heteroscedasticity could lead to inefficient coefficient estimations and biased standard errors (Baltagi, 2013). Thus, the current study applied the Modified Wald test for groupwise heteroscedasticity to test the error term in the examined models.

3.9.2.4 Autocorrelation

Gujarati and Porter (2014) mentioned that autocorrelation indicates the correlation between members of a series of observations sequenced in time (time series data) or space (cross-sectional data). Several assessments encompassing the graphical method test, Durbin Watson test, and Wooldrigde test were conducted to detect the presence of auto-correlation in the study model. This study conducted the Wooldrigde test to identify autocorrelation problems in the research data.

3.9.2.5 Cross-Sectional Dependence

Cross-sectional dependence implies the correlation of residuals across entities. Financial and economic data tend to reflect cross-sectional dependence problems as the entities demonstrate strong similarities between and across time (Hoyos & Sarafidis, 2006; Petersen, 2009). Following Baltagi (2013), panel data models could depict substantial cross-sectional dependence in the errors following individual or combined

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heteroscedasticity and auto-correlation that may arise owing to the advent of common shocks and unobserved components, thus becoming part of the error term, spatial dependence, and idiosyncratic pair-wise dependence in the disruptions with no specific patterns of common components or spatial dependence. Hoyos and Sarafidis (2006) proposed the Pesaran test to identify the cross-sectional dependence problem within the study dataset. Additionally, Hoyos and Sarafidis (2006) recommended the test to be the most appropriate assessment for the panel data with big cross-sectional units and small time series. As such, neglecting the cross-sectional dependence problem might generate under or over estimations of the findings' coefficient.

3.9.3 Panel Data Analysis

Panel data analysis (longitudinal or cross-sectional time series data) quantitatively employs panel data regression analysis to achieve the research objective. Panel data observations typically entail a minimum of two aspects: (i) a time series dimension represented by *i* and (ii) a cross-sectional dimension represented by *t*. This study utilised panel data as the data were collected over 10 years between 2010 and 2019 among 16 Malaysian Islamic banks. The general estimated equation for panel data analysis is expressed as follows:

$$Y_{it} = B_0 + B_1X_{it} + B_2X_{it} + \ldots\ldots\ldots\ldots + B_nX_{it} + \varepsilon_{it} \quad (3.1)$$

Each observation is regarded as heterogeneous in panel data regression. Fixed-effect or random-effect models are commonly employed to regulate the heterogeneity effect in panel data regression. The simple ordinary least squares (OLS) or Pooled OLS regression proved unsuitable as the analysis considers each observation as homogeneous, which could induce varied outcomes with misleading inferences (Greve & Goldeng, 2004; Jager, 2008). Notwithstanding, Breusch and Pegan (1980) affirmed

that the suitability of Pooled OLS regression should be first assessed before regarding the fixed or random effect regression model. The Breusch-Pegan Lagrange multiplier (LM) test is typically applied to select an adequate panel regression model choice or selection is guided by a decision criterion associated with critical value computation. Hence, fixed or random effects are preferred as the null hypothesis is rejected when the calculated value exceeds the critical counterpart (*Ho* states the unobserved fixed effect variance as zero).

3.9.3.1 Fixed-Effect Model

Fixed effects essentially examine the variable correlations within an individual be it an organisation or country. In other words, this model considers the variations between the individual and itself within the duration to control for unobserved unique characteristics or time-invariant factors that could instigate biased outcomes. As the error term in a fixed-effects method correlates to the independent variables, a fixed-effects method could eliminate the unobserved time-invariant attribute impacts on independent variables and render the estimation assessable. Overall, a fixed-effects estimation proved to be favourable despite its possible unproductiveness with time-variant elements (Allison, 2009; Wooldridge, 2010).

3.9.3.2 Random-Effect Model

The random-effects estimate could examine time-constant independent variables that are omitted in the fixed-effects estimation. As the unobserved effect is not correlated to the independent variables regardless of their variation over time (Schmidheiny, 2013), the random-effects method might be favoured if the primary empirical concern entails

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time-constant variables. Notwithstanding, random effects might be biased if the appropriate method encompasses fixed effects.

3.9.3.3 Choosing Between Fixed and Random Effects

The Hausman test is typically performed in research to decide between fixed and random effect models. Based on the null hypothesis underlying this test, the fixed- and random-effect model estimators do not demonstrate a substantial difference. Thus, a random-effects model is deemed inappropriate if the null hypothesis is rejected, which necessitates utilising the fixed-effects model. Fixed effects should be selected as opposed to random effects in the wake of a significant p-value (under 0.05) to prevent bias. Regardless, random effects could be safely applied with an insignificant p-value (Wooldridge, 2010).

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3.9.4 Panel Regression Analysis

Panel Regression analysis was employed for hypothesis testing and to assess the significance of the direct relationship between two or more independent variables and a dependent variable (Hair et al., 2014).

3.9.5 Hierarchical Panel Regression Analysis

Hierarchical panel regressions enable another variable between independent and dependent counterparts to rely on the level of another independent variable (moderator) (Baron & Kenny, 1986). Following Baron and Kenny (1986), the moderating model in Figure 3.3 depicts three causal paths that impact the outcome variable. Path '*a'* implies the direct impact of a predictor (independent) variable on the outcome variable, path '*b*' defines the direct impact of the moderator on outcome variable, and path '*c*' is the

interaction or multiplicative product of the predictor and moderator variables. The moderator hypothesis is supported or unsupported based on the significant or insignificant outcomes of the interaction term. Although Baron and Kenny (1986) indicated a direct and significant relationship between paths *a* and *b* with the outcome variable, the aforementioned paths are not conceptually not relevant to test the moderating effect.

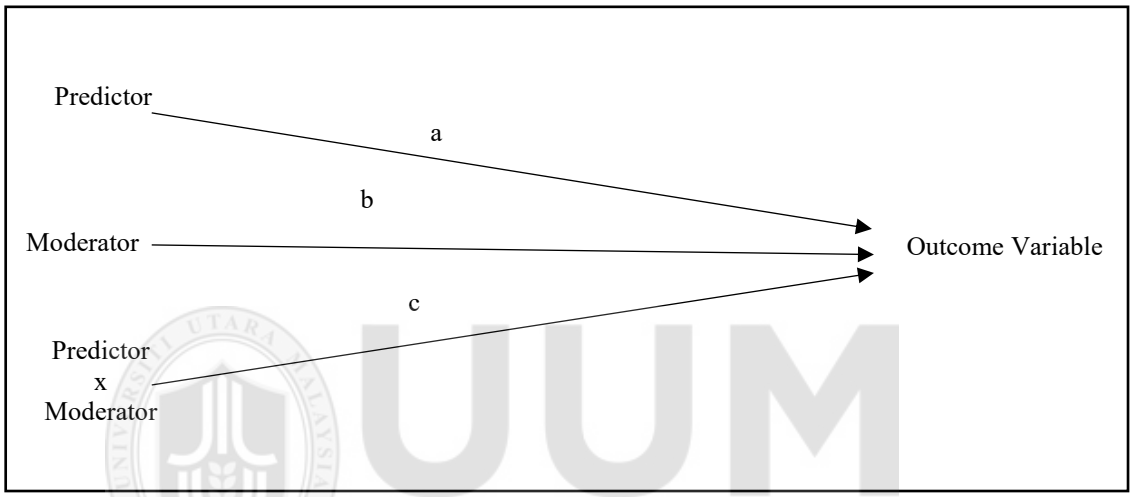

Figure 3.3
Moderating Effect Model
Source: Baron and Kenny (1986)

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Hair et al. (2014) implied the hierarchical regression model as a minor extension of classical linear regression. The linear model of Hair et al.'s (2014) moderated relationship is illustrated as follows:

$$Y = \beta_0 + B_1X_1 + B_2X_2 + B_3X_1X_2 \quad (3.2)$$

Where
β_0 = Intercept
B_1X_1 = Linear effect of X_1
B_2X_2 = Linear effect of X_2
$B_3X_1X_2$ = Moderating effect of X_2 on X_1

3.10 Research Models

Two regression model types, panel regression and hierarchical panel regression, were employed to achieve the research objectives. The fixed and random effects of the panel data analysis were also evaluated for regression model development.

3.10.1 Panel Regression Models

The two panel regression models below test the direct influence of independent variables on the dependence counterparts to achieve objectives one to six. The equations for the regression model in this study are expressed as follows:

$$\mathrm{ROA}_{it} = \alpha_0 + B_1\mathrm{SCF}_{it} + B_2\mathrm{ZKT}_{it} + B_3\mathrm{ADV}_{it} + B_4\ \mathrm{HF}_{it} + B_5\mathrm{NPF}_{it} + B_6\ \mathrm{OE}_{it} + B_7\mathrm{SIZE}_{it} + B_8\ \mathrm{LEV}_{it} + \varepsilon_{it} \quad (3.3)$$

Where,
For each bank (i) and each year (t)
α = Constant
ROA = Return on Assets
SCF = Shariah-Compliant Financing
ZKT = Zakat
ADV = Advertising
HF = Household Financing
NPF = Non-Performing Financing
OE = Operational Efficiency
SIZE = Size of banks
LEV = Leverage
Ɛ = Error

$$\mathrm{ROE}_{it} = \alpha_0 + B_1\mathrm{SCF}_{it} + B_2\mathrm{ZKT}_{it} + B_3\mathrm{ADV}_{it} + B_4\ \mathrm{HF}_{it} + B_5\mathrm{NPF}_{it} + B_6\ \mathrm{OE}_{it} + B_7\mathrm{SIZE}_{it} + B_8\ \mathrm{LEV}_{it} + \varepsilon_{it} \quad (3.4)$$

Where,
For each bank (i) and each year (t)
α = Constant
ROE = Return on Equity

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SCF = Shariah-Compliant Financing
ZKT = Zakat
ADV = Advertising
HF = Household Financing
NPF = Non-Performing Financing
OE = Operational Efficiency
SIZE = Size of banks
LEV = Leverage
Ɛ = Error

3.10.2 Hierarchical Panel Regression Models

A third and fourth hierarchical panel regression modela were structured to test the moderating effects of SC effectiveness on the independent-dependent variable relationship in this study. The SC effectiveness was integrated and subsequently multiplied with each independent variable creating six interaction terms as presented in the models below. In line with Baron and Kenny (1986) and Hair et al. (2014), the moderating model equations in this study are expressed as follows:

$$\mathrm{ROA}_{it} = \alpha_0 + B_1\mathrm{SCF}_{it} + B_2\mathrm{ZKT}_{it} + B_3\mathrm{ADV}_{it} + B_4\ \mathrm{HF}_{it} + B_5\mathrm{NPF}_{it} + B_6\ \mathrm{OE}_{it} + B_7\mathrm{SIZE}_{it} + B_8\mathrm{LEV}_i + B_9\mathrm{SC}_{it} + B_{10}(\mathrm{SCF\ X\ SC})_{it} + B_{11}(\mathrm{ZKT\ X\ SC})_{it} + B_{12}(\mathrm{ADV\ X\ SC})_{it} + B_{13}(\mathrm{HF\ X\ SC})_{it} + B_{14}\ (\mathrm{NPF\ X\ SC})_{it} + B_{15}(\mathrm{OE\ X\ SC})_{it} + \mathrm{Ɛ}_{it} \quad (3.5)$$

Where,
For each bank (i) and each year (t)
α = Constant
ROA = Return on Assets
SCF = Shariah-Compliant Financing
ZKT = Zakat
ADV = Advertising
HF = Household Financing
NPF = Non-Performing Financing
OE = Operational Efficiency
SIZE = Size of banks
LEV = Leverage
SC = Shariah Committee
Ɛ = Error

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$$\mathrm{ROE}_{it} = \alpha_0 + B_1\mathrm{SCF}_{it} + B_2\mathrm{ZKT}_{it} + B_3\mathrm{ADV}_{it} + B_4\ \mathrm{HF}_{it} + B_5\mathrm{NPF}_{it} + B_6\ \mathrm{OE}_{it} + B_7\mathrm{SIZE}_{it} + B_8\mathrm{LEV}_{it} + B_9\mathrm{SC}_{it} + B_{10}(\mathrm{SCF\ X\ SC})_{it} + B_{11}(\mathrm{ZKT\ X\ SC})_{it} + B_{12}(\mathrm{ADV\ X\ SC})_{it} + B_{13}(\mathrm{HF\ X\ SC})_{it} + B_{14}\ (\mathrm{NPF\ X\ SC})_{it} + B_{15}(\mathrm{OE\ X\ SC})_{it} + \varepsilon_{it} \quad (3.6)$$

Where,
For each bank (i) and each year (t)
α = Constant
ROA = Return on Equity
SCF = Shariah-Compliant Financing
ZKT = Zakat
ADV = Advertising
HF = Household Financing
NPF = Non-Performing Financing
OE = Operational Efficiency
SIZE = Size of banks
LEV = Leverage
SC = Shariah Committee
Ɛ = Error

3.11 Summary of the Chapter

This chapter was elaborated based on a sound understanding of the preceding chapter and discussions on the study methodology. The theoretical framework model and hypotheses were established based on the research objectives. The quantitative study employed data panel analysis on the information extracted from the annual reports of Islamic banks between 2010 and 2019. The SPSS, STATA and EVIEW software was utilised for data evaluation, which would be elaborated on in the following chapter.

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CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents and elaborates on the empirical study outcomes. This chapter is divided into seven major sections. Section 4.2 summarises the descriptive analysis of the assessed variables, Section 4.3 analyses diagnostic tests involving, multicollinearity, homoscedasticity, autocorrelation, cross-sectional dependence, Lagrangian Multiplier, and Hausman, Section 4.4 documents the panel regression analysis of direct relationships, Section 4.5 reports the hierarchical regression outcomes of SC as the moderator of independent-dependent variable correlations, Section 4.6 critically discusses the primary study findings, and Section 4.7 concludes the chapter.

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4.2 Descriptive Analysis

Table 4.1 demonstrates the study variable statistics with summarised information on the mean, median, standard deviation, and minimum and maximum values for the independent, dependent, moderator and control variables. This research adopted return on assets (ROA) and return on equity (ROE) as dependent variables and Shariah-compliant financing (SCF), Zakat (ZKT), advertising (ADV), household financing (HF), non-performing financing (NPF), and operational efficiency (OE) as independent counterparts. The SC implied the moderating variable while the control counterparts denoted size (SIZE) and leverage (LEV).

Table 4.1
Descriptive Statistics of Variables

Variables	N	Mean	Median	Standard Deviation	Min	Max
ROA	151	0.69	0.77	0.45	-1.67	1.68
ROE	151	9.83	10.60	6.19	-9.81	30.67
SCF	151	73.80	75.21	7.95	49.09	87.49
ZKT	151	0.08	0.01	0.13	0.00	0.62
ADV	151	3.07	2.17	2.49	0.01	12.05
HF	151	55.87	58.28	19.83	3.38	87.98
NPF	151	2.14	1.49	2.07	0.33	12.02
OE	151	52.03	47.61	17.11	21.20	100.52
SC	151	75	75	18.71	25	100
SIZE	151	9.90	9.93	1.00	7.72	12.41
LEV	151	91.30	92.23	3.63	79.29	96.29

Notes: ROA is return on assets measured by net profit to average total assets; ROE is return on equity measured by net profit to average total shareholder's equity; SCF is Shariah-compliant financing is measured by finance income to total income; ZKT is Zakat is measured by total Zakat to net assets; ADV is advertising measured by advertising expenses to total expenses; HF is household financing is measured by household financing to total financing; NPF is non-performing financing measured by non-performing financing to total financing; OE is operational efficiency is measured by total expenses to total revenue; SC is Shariah committee is measured by dividing total number of SC recommendations respected by banks to four Shariah committee characteristics (number of meetings, number of Shariah committee, number of Shariah committee hold doctorate, number of Shariah committee hold degree in accounting or finance); SIZE is size of the Islamic banks is measured by natural logarithm of total assets; LEV is leverage is measured by total liabilities to total assets.

Based on the descriptive statistics in Table 4.1, the ROA represented an average of 0.69% with minimum and maximum values of -1.67% and 1.68%, respectively. Meanwhile, the average ROE reflected 9.83% with a minimum and maximum value of -9.81% and 30.67%, respectively. The ROA-ROE variations demonstrated in their mean and minimum and maximum values implied that some Islamic banks substantially profited between the reviewed periods as opposed to other financial

institutions. This essential difference accounts for the reason why all the measures were incorporated into this study. The means score of financial performance was supported by the Islamic Financial Services Board (2020) report where the current profitability of Malaysian Islamic banks with regards to ROA and ROE indicated a substantial increase compared to their conventional counterparts.

The average SCF reflected 73.80% with minimum and maximum values of 49.09% and 87.49%, respectively. The mean value of SCF (73.80%) implied that most of the Malaysian Islamic bank revenues originated from Shariah financing contracts: *Bai' Bithaman Ajil, Bai' Inah, Mudarabah, Musharakah, Murabaha, Istisna',* and *Ijarah*. Meanwhile, the remaining bank revenues were extracted from financial investment, fees, commissions and others. The research findings paralleled Zaini et al. (2018) where most of the Malaysian Islamic bank revenues originated from SCF.

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Table 4.1 also outlines a mean of 0.08% for ZKT with minimum and maximum values of 0% and 0.62%, respectively. On average, Malaysian Islamic banks paid an average of 0.08% ZKT from net assets with the highest reflecting 0.62%. Notably, few Islamic banks such as Al-Rajhi Banking and Investment Corporation, Kuwait Finance House, HSBC Amanah, and Standard Chartered Saadiq paid zero ZKT. Such foreign-owned Islamic banks do not pay Zakat on behalf of their shareholders. Likewise, a local study of Rosman et al. (2019) documented a low mean of ZKT from 2011 to 2018.

Regarding ADV, the mean reflected 3.07% with minimum and maximum values of 0.01% and 12.05%, respectively. The mean value of ADV during the study period implied low ADV expenses among Malaysian Islamic banks. This outcome paralleled

Haron and Wan Azmi (2009) and Kamarulzaman and Madun (2013) where the marketing strategies of Malaysian Islamic banks (ADV activities) remain inadequate with much room for improvement.

Regarding HF, Table 4.1 presents the percentage of HF ranging from 3.38% to 87.98% with a mean of 55.87%. The mean value of HF implied that Islamic banks disbursed up to 56% of their total financing to household sectors between 2010 and 2019. The research outcomes corresponded to Seho et al. (2021) where most Malaysian Islamic bank financing funds household sectors.

The mean of NPF reflected 2.14% with minimum and maximum values of 0.33% and 12.02%, respectively. The mean value of NPF indicated that Malaysian Islamic banks experienced extremely low NPF during the study period. A low NPF mean value was similarly documented by Isaev and Masih (2017) where Malaysian Islamic financial services have undergone high growth stability and asset quality when compared to their counterparts in neighbouring nations. Such study discovered that the asset quality proxied by the NPF ratio on Malaysian Islamic bank assets falls well below that of their conventional counterparts.

This study also incorporated OE with a mean value of 52.03% and minimum and maximum values of 21.20% and 100.52%, respectively. The maximum value of OE exceeds 100% is due to several banks reported higher operating expenses than its revenue during the research period. Notwithstanding, the overall mean value of OE demonstrated that Malaysian Islamic banks could control their OE.

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The percentage mean of moderating variable, SC index, implied 75% with minimum and maximum values of 25% and 100%, respectively. This outcome corresponded to the study of Neifar et al. (2020) on GCC countries. On average, Malaysian Islamic banks acknowledged 75% of the BNM Shariah governance recommendations. This high mean value indicated that Malaysian Islamic banks valued the quality of SC. The Islamic banks in dire need to convince their stakeholders of Shariah compliance strived to improve SC adherence. Thus, an effective SC was equivalent to their proof of compliance with Shariah products and services in Islamic banks.

Other variables (SIZE and LEV) were considered to control potential differences among Islamic banks. Essentially, SIZE was assessed by the natural logarithm of total assets with a mean value of 9.90 and minimum and maximum values of 7.72 and 12.41, respectively. Meanwhile, LEV (as measured with total liability by total assets) denoted a mean of 91.30% with minimum and maximum values of 79.29% and 96.29%, respectively. The SIZE is commonly employed in past literature to control the advantages of bigger and smaller bank sizes while LEV is typically employed to control bank risk levels.

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4.3 Diagnosis Test

This section elaborates on the diagnostic tests conducted on the data for regression assumption testing. The diagnostic tests were first performed to analyse data distribution in terms of multicollinearity. The diagnostic tests related to panel data (homoscedasticity, auto-correlation, cross-sectional dependence, LM, and Hausman test) were subsequently justified.

4.3.1 Multicollinearity Test

The multicollinearity test was conducted to identify how independent variables are interrelated in a given model. Correlation matrix, Variance Inflation Factors (VIF), and tolerance (1/VIF) tests are extensively employed to identify multicollinearity in the research data outcomes.

4.3.1.1 Correlation

Correlation analysis was employed in this study to identify the presence of multicollinearity among independent variables, which could affect their relationship with the dependent variables in regression analysis. Notably, multicollinearity arises in the correlation matrix when the correlation values indicate 0.90 and above (Pallant, 2010). Based on Table 4.2, all the correlation values were under 0.90, thus indicating the absence of correlations among all the study variables.

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Table 4.2
Correlation Analysis

Variables	SCF	ZKT	ADV	HF	NPF	OE	SIZE	LEV	SC
SCF	1								
ZKT	-0.238**	1							
ADV	-0.177**	0.213**	1						
HF	0.201*	0.291**	0.188*	1					
NPF	-0.392**	-0.080	-0.088	-0.476**	1				
OE	-0.312**	-0.062	-0.007	-0.553**	0.444**	1			
SIZE	0.352**	0.393**	0.074	0.552**	-0.367**	-0.594**	1		
LEV	0.410**	0.228*	0.142	0.526**	-0.680**	-0.583**	0.622**	1	
SC	0.056	0.193*	0.127	0.516**	-0.280**	-0.234**	0.402**	0.279**	1

**. Correlation is significant at the 0.01 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Notes: SCF is Shariah-compliant financing is measured by finance income to total income; ZKT is Zakat is measured by total Zakat to net assets; ADV is advertising measured by advertising expenses to total expenses; HF is household financing is measured by household financing to total financing; NPF is non-performing financing measured by non-performing financing to total financing; OE is operational efficiency is measured by total expenses to total revenue; SC is Shariah committee is measured by dividing total number of SC recommendations respected by banks to four Shariah committee characteristics (number of meetings, number of Shariah committee, number of Shariah committee hold doctorate, number of Shariah committee hold degree in accounting or finance); SIZE is size of the Islamic banks is measured by natural logarithm of total assets; LEV is leverage is measured by total liabilities to total assets.

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4.3.1.2 Variance Inflation Factors and Tolerance

The Variance Inflation Factors (VIF) and Tolerance (1/VIF) tests were also performed to detect any multicollinearity problems in the dataset. In Hair et al. (2014), VIF or 1/VIF values exceeding 10 or under 0.01, respectively, demonstrate a multicollinearity issue. The aforementioned values in Table 4.3 clearly suggest that multicollinearity does not exist among the study variables. All the VIF values proved to be significantly below the threshold of 10 with an average of 2.00, whereas 1/VIF values exceeded the threshold of 0.10. Hence, the VIF and 1/VIF values indicate that the research variables are not correlated or redundant.

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Table 4.3
Variance Inflation Factor and Tolerance Tests

Variables	VIF	Tolerance Value
SCF	1.68	0.5955
ZKT	1.63	0.6139
ADV	1.14	0.8780
HF	2.20	0.4552
NPF	2.11	0.4734
OE	2.13	0.4699
SIZE	2.76	0.3624
LEV	2.90	0.3448
SC	1.48	0.6759
Mean VIF	2.00	

SCF is Shariah-compliant financing is measured by finance income to total income; ZKT is Zakat is measured by total zakat to net assets; ADV is advertising measured by advertising expenses to total expenses; HF is household financing is measured by household financing to total financing; NPF is non-performing financing measured by non-performing financing to total financing; OE is operational efficiency is measured by total expenses to total revenue; SC is Shariah committee is measured by dividing total number of SC recommendations respected by banks to four Shariah committee characteristics (number of meetings, number of Shariah committee, number of Shariah committee hold doctorate, number of Shariah committee hold degree in accounting or finance); SIZE is size of the Islamic banks is measured by natural logarithm of total assets; LEV is leverage is measured by total liabilities to total assets.

4.3.2 Homoscedasticity Test

Greene (2008) proposed assessing the presence of heteroscedasticity in the panel data with random-effect and fixed-effect model selections. The Modified Wald test for groupwise heteroscedasticity test was conducted in this study. Following Greene (2008), a null hypothesis implies no groupwise heteroscedasticity while a rejected null hypothesis denotes a case of groupwise heteroscedasticity. Table 4.4 presents the

modified Wald test for both study models. The p-values for both models documented significant values at $p < 0.01$ while the null hypothesis of no group-wise heteroscedasticity was rejected for both ROA and ROE models. Conclusively, the heteroscedasticity in both research models requires rectification. Hair et al. (2014) explained that proceeding with data analysis without the correction could result in biased estimates and misleading inferences. In this vein, the study adopted the method discussed in Section 4.4 to resolve heteroskedasticity and prevent the derivation of misleading inferences from the study analysis.

Table 4.4
Modified Wald Test for Groupwise Heteroscedasticity

Direct Relationship Models

Test	**ROA Model**		**ROE Model**	
	Statistic	**p-value**	**Statistic**	**p-value**
Modified Wald Test	1562.95	0.0000	414.63	0.0000

Moderating Effect Models

Test	**ROA Model**		**ROE Model**	
	Statistic	**p-value**	**Statistic**	**p-value**
Modified Wald Test	1379.58	0.0000	524.20	0.0000

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4.3.3 Autocorrelation Test

The presence of autocorrelation implies noise, which is undesirable in regression analysis given its violation of regression assumption (Anderson et al., 2007) and generation of less precise regression outcomes (Drucker, 2003). The Wooldridge test was employed to detect autocorrelation in the study models. The test is based on the null hypothesis with no first-order auto-correlation. Table 4.5 demonstrates the p-values of both models to be under 0.05. The null hypothesis is rejected with a p-value under

0.05 and indicates the presence of autocorrelation for both ROA and ROE research models. Auto-correlation, which requires rectification for accurate outcomes, would be corrected with the White covariance estimator technique discussed in Section 4.4.

Table 4.5
Autocorrelation Test

Direct Relationship Models

Test	**ROA Model**		**ROE Model**	
	Statistic	**p-value**	**Statistic**	**p-value**
Wooldridge Test	12.369	0.0031	5.700	0.0306

Moderating Effect Models

Test	**ROA Model**		**ROE Model**	
	Statistic	**p-value**	**Statistic**	**p-value**
Wooldridge Test	12.207	0.0033	5.724	0.0303

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4.3.4 Cross-Sectional Dependence

The Pesaran test is deemed an appropriate test to ascertain cross-sectional dependence issues in the dataset. Pesaran is highly appropriate for panel data with large cross-sectional units and small time series (Hoyos & Sarafidis, 2006). This test was applied to ROA and ROE models as presented in Table 4.6. Resultantly, the p-value for both ROA and ROE models reflected more than a 1% of significant level. The Pesaran test outcomes accepted the null hypothesis of zero cross-section dependence problem within the research data.

Table 4.6
Pesaran Test

Direct Relationship Models

Test	ROA Model			ROE Model		
	Statistic	**Average absolute value of the off-diagonal elements**	**p-value**	**Statistic**	**Average absolute value of the off-diagonal elements**	**p-value**
Pesaran Test	1.059	0.351	0.2895	0.080	0.324	0.9359

Moderating Effect Models

Test	ROA Model			ROE Model		
	Statistic	**Average absolute value of the off-diagonal elements**	**p-value**	**Statistic**	**Average absolute value of the off-diagonal elements**	**p-value**
Pesaran Test	1.112	0.355	0.2662	0.095	0.330	0.9245

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4.3.5 Lagrangian Multiplier Test

The Lagrangian Multiplier **(**LM) test was performed to further confirm an appropriate model selection of panel data regression. Bruesch and Pagan's (1980) LM test functions to determine the appropriacy of a pooled OLS model. The null hypothesis of LM implies the random effect variance to equal zero. In this case, a pooled OLS is deemed more appropriate than the random effect model. Table 4.7 demonstrated the Bruesch Pagan LM test for both the ROA and ROE models. The p-values under 1% for all the study models would reject the null hypothesis. In this regard, the random-effects model is appropriate for all models as the variance of the effects is not equal to zero.

Meanwhile, the Hausman specification test was operated to determine the nature of bank data for each specified model.

Table 4.7
Lagrangian Multiplier Test

Direct Relationship Models

Test	ROA Model		ROE Model	
	Chi	p-value	Statistic	p-value
Bruesch-Pagan LM	11.06	0.0004	24.64	0.0000

Moderating Effect Models

Test	ROA Model		ROE Model	
	Chi	p-value	Statistic	p-value
Bruesch-Pagan LM	10.45	0.0006	23.80	0.0000

4.3.6 Hausman Test

This test was implemented to ascertain a good model fit between fixed or random effects upon meeting the validity assumption for the random-effect model. The Hausman test is generally performed to select between fixed-effect and random-effect study models. Based on the null hypothesis underpinning the test, fixed-effect and random-effect model estimators did not significantly vary. Conclusively, the random-effects model is deemed inappropriate if the null hypothesis is rejected, thus implying the use of the fixed-effects model. In the event of a significant p-value (under 0.05), the fixed-effects model should be applied as using random-effects would induce bias. Nevertheless, random effects could be safely employed with an insignificant p-value (Wooldridge, 2010). Based on Table 4.8, the Hausman test results suggested that the random-effects model would be more appropriate for the ROA model (p-value > 0.05)

while the fixed-effects counterpart would be more adequate for the ROE model (p-value < 0.05).

The test discrepancies for both models occurred following the difference in the predictor measurement within regression models. The Hausman test outcomes for both models corresponded to Abou Elseoud, Yassin and Moh'd Ali (2020) who reported different regression models for the ROA and ROE of Islamic banks in Bahrain.

Table 4.8
Hausman Test

Direct Relationship Models

Test	ROA Model		ROE Model	
	Statistic	**p-value**	**Statistic**	**p-value**
HausmanTest	8.6738	0.3706	21.8055	0.0053

Moderating Effect Models

Test	ROA Model		ROE Model	
	Statistic	**p-value**	**Statistic**	**p-value**
HausmanTest	8.8214	0.4539	21.8610	0.0093

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4.4 Panel Regression Analysis

This sub-section presents the panel regression results that determine the direct independent-dependent variable relationships. Two regression analyses were run representing both the Islamic bank financial performance measurement (ROA and ROE) for hypothesis testing. The current study employed the EVIEW software Version 14 for regression outcome analysis. White robust covariance was incorporated as a

robust estimator to rectify the presence of heteroscedasticity and auto-correlation in the study models. This estimator would generate highly precise coefficient standard errors in the research models. This covariance was selected in line with Wu and Shen's (2013) and Sekhon and Kathuria's (2019) recommendations. Table 4.9 summarises the direct relationship outcomes involving independent and control variables with financial performance proxied by ROA and ROE. Both models demonstrated a significant level of 1% with an adjusted R-square of 0.3982 and 0.8357 for the ROA and ROE models, respectively. Based on the statistics, the ROA and ROE models justified 39.82% and 83.57% of the financial performance variance, respectively.

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Table 4.9
Panel Regression Results of Shariah Compliance and Financial Performance

Variables	Expected Signs	ROA			ROE		
		Beta	**t**	**p-value**	**Beta**	**t**	**p-value**
SCF	+	0.0064	1.9134	0.0577*	-0.0301	-0.6311	0.5291
ZKT	+	0.8464	5.7778	0.0000***	8.4505	3.6900	0.0003***
ADV	+	0.0150	1.7947	0.0748*	0.3171	1.9535	0.0530*
HF	-	0.0032	0.9982	0.3199	0.0315	0.9877	0.3252
NPF	-	-0.0299	-1.0547	0.2934	-0.4423	-2.4486	0.0157**
OE	-	-0.0168	-6.4694	0.0000***	-0.2157	-8.3418	0.0000***
SIZE		-0.0554	-1.1607	0.2477	-1.3947	-1.5803	0.1165
LEV		-0.0115	-0.5144	0.6078	0.2026	0.8422	0.4012
Constant		2.4422	1.4986	0.1362	16.1201	0.8541	0.3964
R^2			0.4303			0.8609	
Adjusted R^2			0.3982			0.8357	
F-Statistic			13.4047			34.1659	
Prob (F-statistic)			0.0000			0.0000	
Observation			151			151	

*Note: *p<0.10, **p<0.05, ***p<0.01*
Notes: ROA is return on assets measured by net profit to average total assets; ROE is return on equity measured by net profit to average total shareholder's equity; SCF is Shariah-compliant financing is measured by finance income to total income; ZKT is Zakat is measured by total Zakat to net assets; ADV is advertising measured by advertising expenses to total expenses; HF is household financing is measured by household financing to total financing; NPF is non-performing financing measured by non-performing financing to total financing; OE is operational efficiency is measured by total expenses to total revenue; SC is Shariah committee is measured by dividing total number of SC recommendations respected by banks to four Shariah committee characteristics (number of meetings, number of Shariah committee, number of Shariah committee hold doctorate, number of Shariah committee hold degree in accounting or finance); SIZE is size of the Islamic banks is measured by natural logarithm of total assets; LEV is leverage is measured by total liabilities to total assets.

Based on Table 4.9, SCF was positively related to financial performance at a significant level of 10% in terms of ROA. This effect implied that an increase in SCF value would

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elevate that of the ROA for optimal bank performance. Nevertheless, the ROE model demonstrated an insignificant relationship between SCF and ROE. As such, the results supported **H1a** and did not support **H1b**.

Both regression model outcomes denoted a positive and significant relationship between ZKT and the financial performance of Islamic banks. The study outcome reflected a significant level of 1% for both ROA and ROE. Resultantly, a high Islamic bank ZKT contribution would optimise financial performance in terms of ROA and ROE. Notably, both **H2a** and **H2b** were supported.

Based on the study assumptions, ADV was positively associated with financial performance. The research outcomes implied that ADV was positively related to financial performance at a significant level of 10% in both the ROA and ROE models. As such, increased ADV expenditure could enhance Islamic bank profitability to familiarise customers with Islamic banking product and service benefits. In this vein, **H3b** and **H3b** were supported**.**

Although HF perceivably reflected an inverse relationship with bank financial performance, the beta coefficient result reflected an insignificant HF-financial performance connection at a p-value exceeding 10% for both ROA and ROE models. The coefficients imply that high HF disbursement by Islamic banks induces high bank ROA and ROE. Notwithstanding, the outcomes offered no sufficient evidence to support this notion and did not support **H4a** and **H4b**.

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Although the study findings reflected a negative coefficient value of NPF for both the ROA and ROE models, only the ROE model demonstrated a negative and significant NPF-financial performance relationship at a 1% significant level ($p < 0.05$). As such, the results did not support **H5a** but supported **H5b.**

The results of the study show that OE was negatively related to financial performance at a 1% significant level in both ROA and ROE models. The outcomes complemented the idea that organisations with minimal operational costs potentially optimise the bank profitability represented by ROA and ROE ratios. Overall, **H6a** and **H6b** were supported**.**

4.4.1 Summary of Regression Results of Relationship between Shariah Compliance and Financial Performance

Table 4.10 presents a summary of the Shariah compliance-financial performance (ROA and ROE) relationship outcomes while Table 4.11 outlines the supported and unsupported hypotheses.

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Table 4.10
Summary of Panel Regression Results of Shariah Compliance and Financial Performance

Independent Variables	Expected Sign	Actual Results	
		ROA	**ROE**
SCF	+	**Significant (+)**	Insignificant (-)
ZKT	+	**Significant (+)**	**Significant (+)**
ADV	+	**Significant (+)**	**Significant (+)**
HF	-	Insignificant (+)	Insignificant (+)
NPF	-	Insignificant (-)	**Significant (-)**
OE	-	**Significant (-)**	**Significant (-)**

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Table 4.11
Summary of Hypotheses Test Results of the Relationship between Shariah Compliance and Financial Performance

Hypotheses	Results
H1a: There is a positive and significant relationship between Shariah-compliant financing and the ROA of Islamic banks in Malaysia.	**Supported**
H1b: There is a positive and significant relationship between Shariah-compliant financing and the ROE of Islamic banks in Malaysia	**Not Supported**
H2a: There is a positive and significant relationship between Zakat and the ROA of Islamic banks in Malaysia.	**Supported**
H2b: There is a positive and significant relationship between Zakat and the ROE of Islamic banks in Malaysia.	**Supported**
H3a: There is a positive and significant relationship between advertising and the ROA of Islamic banks in Malaysia.	**Supported**
H3b: There is a positive and significant relationship between advertising and the ROE of Islamic banks in Malaysia.	**Supported**
H4a: There is a negative and significant relationship between household financing and the ROA of Islamic banks in Malaysia	**Not Supported**
H4b: There is a negative and significant relationship between household financing and the ROE of Islamic banks in Malaysia	**Not Supported**
H5a: There is a negative and significant relationship between the non-performing financing and the ROA of Islamic banks in Malaysia.	**Not Supported**
H5b: There is a negative and significant relationship between the non-performing financing and the ROE of Islamic banks in Malaysia.	**Supported**
H6a: There is negative and significant relationship between operational efficiency and the ROA of Islamic banks in Malaysia.	**Supported**
H6b: There is negative and significant relationship between operational efficiency and the ROE of Islamic banks in Malaysia.	**Supported**

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4.5 Hierarchical Panel Regression Analysis

This sub-section presents the results derived from the SC effect on the Shariah compliance-financial performance relationship. The regression analyses were performed in three stages or models in line with Baron and Kenny (1986). The interaction terms must first be formed to detect the moderating effect. The independent variables were then multiplied with the moderator counterpart to create the aforementioned terms. Six study interactions were created where every independent variable interacted with the moderator counterpart to create a second model for the moderating effect of SC, which was hypothesised to influence the direct relationship between Shariah compliance (SCF, ZKT, ADV, HF, NPF, and OE) and financial performance (ROA and ROE).

4.5.1 Moderating Effects of SC on the Relationship between Shariah Compliance and ROA

Table 4.12 presents the hierarchical regression results of moderating effects of SC on the relationship between Shariah compliance and ROA. Table 4.12 presents the hierarchical regression analyses outcomes based on the analysis stages (Models 1, 2, and 3).

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Table 4.12

Hierarchical Panel Regression Results of Moderating Effects of SC on the Relationship between Shariah Compliance and ROA

Variables	Model 1		Model 2		Model 3	
	Beta	**t**	**Beta**	**t**	**Beta**	**t**
SCF	0.0064	1.9134*	0.0071	1.8197*	0.0073	1.1234
ZKT	0.8464	5.7778***	0.8532	6.0269***	1.1937	2.6291***
ADV	0.0150	1.7948*	0.0147	1.8877*	0.0737	1.2960
HF	0.0032	0.9982	0.0030	0.9353	-0.0149	-2.7650***
NPF	-0.0299	-1.0547	-0.0279	-0.9625	-0.1494	-1.6983*
OE	-0.0168	-6.4694***	-0.0170	-6.5310***	-0.0448	-3.6322***
SIZE	-0.0554	-1.1607	-0.0646	-1.3835	-0.0143	-0.3591
LEV	-0.0115	-0.5144	-0.0110	-0.5094	0.0010	0.0757
SC			0.0009	0.7306	-0.0318	-1.9914**
SCF*SC					-3.55E-05	-0.2940
ZKT*SC					-0.0069	-1.3666
ADV*SC					-0.0008	-1.0228
HF*SC					0.0002	3.7572***
NPF*SC					0.0019	1.2153
OE*SC					0.0004	2.5242**
Constant	2.4422	1.4986	2.3938	1.5056	3.2878	1.9938**
Adjusted R^2	0.3982		0.3966		0.6077	
Change in R^2			-0.0016		0.2111	
F-Stat	13.4047		11.9538		16.4918	
Prob(F-Stat)	0.0000		0.0000		0.0000	
N	151		151		151	

*Note: *p<0.10, **p<0.05, ***p<0.01*

Notes: ROA is return on assets measured by net profit to average total assets; ROE is return on equity measured by net profit to average total shareholder's equity; SCF is Shariah-compliant financing is measured by finance income to total income; ZKT is Zakat is measured by total Zakat to net assets; ADV is advertising measured by advertising expenses to total expenses; HF is household financing is measured by household financing to total financing; NPF is non-performing financing measured by non-performing financing to total financing; OE is operational efficiency is measured by total expenses to total revenue; SC is Shariah committee is measured by dividing total number of SC recommendations respected by banks to four Shariah committee characteristics (number of meetings, number of Shariah committee, number of Shariah committee hold doctorate, number of Shariah committee hold degree in accounting or finance); SIZE is size of the Islamic banks is measured by natural logarithm of total assets; LEV is leverage is measured by total liabilities to total assets. SCF*SC is interaction term of Shariah-compliant financing with Shariah committee; ZKT*SC is interaction term of zakat with Shariah committee; ADV*SC is interaction term of advertising with Shariah committee; HF*SC is interaction term of household financing with Shariah committee; NPF*SC is interaction term of non-performing financing with Shariah committee; OE*SC is interaction term of operational efficiency with Shariah committee.

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4.5.1.1 Model 1

Following Table 4.12, Model 1 proved significant at 0.0000 levels with an adjusted R^2 of 0.3982. The regression model constituting SCF, ZKT, ADV, HF, NPF, and OE could justify 39.82% of the Islamic bank ROA. Furthermore, four predictors were deemed to be significant: the SCF (β = 0.0064, t = 1.9134), ZKT (β = 0.8464, t = 5.7778), and ADV (β = 0.0150, t = 1.7948) positively and significantly influenced ROA. Another predictor, OE (β=-0.0168, t=-6.4694), negatively and significantly affected the Malaysian Islamic bank ROA. Meanwhile, the HF (β=0.0032, t=0.9982) and NPF (β=-0.0299, t=-1.0547) predictors insignificantly impacted the Malaysian Islamic bank ROA.

4.5.1.2 Model 2

The SC was incorporated into Model 2 as a moderating variable. Following Table 4.12, this model proved to be significant at 0.0000 level with an adjusted R^2 value of 0.3966: slightly lower than the adjusted R^2 value in Model 1 = 0.3982. Thus, the model could almost explain the same variation in ROA with a difference of 0.0016 and SC inclusion. Similarly, four predictors proved to be significant in this model. The SCF (β = 0.0071, t = 1.8197), ZKT (β = 0.8532, t = 6.0269), and ADV (β = 0.0147, t = 1.8877) positively and significantly affected ROA. Meanwhile, OE (β = -0.0170, t = -6.5310) negatively and significantly affected the Malaysian Islamic bank ROA. The predictors of HF (β = 0.0030, t = 0.9353) and NPF (β = -0.0279, t = -0.9625) insignificantly affected the Malaysian Islamic bank ROA.

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4.5.1.3 Model 3

Model 3 justifies the analysis of the relationship between Shariah compliance (inclusive of moderating variable), variable interactions (SCF, ZKT, ADV, HF, NPF, SC, SCF*SC, ZKT*SC, ADV*SC, HF*SC, NPF*SC, OE*SC), and the dependent variable (ROA). Following Table 4.12, the model proved significant at 0.0000 level with an adjusted R^2 0.6077. A positive change of 0.2111 points in the value of adjusted R^2 was incorporated with the inclusion of SC and interactions terms. Resultantly, the SC and their interactions with Shariah compliance variable could better explain the ROA variation compared to Model 2. Elaborations on the Model 3 outcome are presented in the following sub-sections.

4.5.1.3.1 Moderating Effect of SC on the Relationship between SCF and ROA

The hierarchical regression results in Table 4.12 between SCF*SC and ROA reflected an insignificant and negative relationship effect with (β = -3.55E-05, t = -0.2940) for Malaysian Islamic banks. Although the SCF-ROA relationship was initially positive and significant in Model 1, the introduction of SC (moderating variable) as an independent variable in Model 3 rendered the SCF-ROA relationship insignificant and converted the β value direction from positive (0.0064) to negative (-3.55E-05) (see Table 4.12). The moderation result corresponded to Barron and Kenny's (1986) moderation method. Based on the results of the study, a high level of SC effectiveness could increase the ROA in Islamic banks despite the decrease in SCF. Based on the Model 3 results, SC moderated relationship between SCF and ROA. Overall, **H7a** was supported based on the aforementioned results.

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4.5.1.3.2 Moderating Effect of SC on the Relationship between ZKT and ROA

The hierarchical regression results in Table 4.12 between ZKT*SC and ROA implied an insignificant and negative result (β = -0.0069, t = -1.3666). Although the ZKT-ROA relationship was positively significant in Model 1, the introduction of SC as a moderating variable in Model 3 changed the direction of the β value from positive (0.8464) to negative (-0.0069) (see Table 4.12). The moderation results followed Barron and Kenny's (1986) moderation method. Conclusively, Islamic banks could increase their ROA at a high SC effectiveness level even with the decrease in Zakat contribution by banks. Based on the results of the study in Model 3, SC moderated the relationship between ZKT and ROA and supported **H8a**.

4.5.1.3.3 Moderating Effect of SC on the Relationship between ADV and ROA

The hierarchical results of ADV*SC and ROA similarly indicated an insignificant and negative result (β = -0.0008, t = -1.0228). Although the ADV-ROA relationship proved to be positively significant in Model 1, the introduction of SC as a moderating variable in Model 3 rendered the ADV-ROA relationship insignificant. The β value direction from positive (0.0150) to negative (-0.0008) value is depicted in Table 4.12. The moderation results followed Barron and Kenny's (1986) moderation method. Based on the results of the study, a high SC effectiveness level could increase the Islamic bank ROA despite low advertising expenses. Hence, the results in Model 3 implied that SC moderated the relationship between ADV and ROA and supported **H9a**.

4.5.1.3.4 Moderating Effect of SC on the Relationship between HF and ROA

The interaction term between HF*SC in Table 4.12 (see page 148) yielded a positive and significant relationship with ROA (β = 0.0002, t = 3.7572). Although the HF-ROA

relationship proved to be positive but insignificant in Model 1, the introduction of SC as a moderating variable the HF and ROA relationship proved significant at a 1% significant level without changing the relationship direction. The SC interaction with the HF-ROA relationship strengthened this relationship by positively moderating it at a 1% significant level and proved that SC is a good regulator for high performance by increasing the ROA value with high HF. As such, the SC moderated the effect of HF on the Malaysian Islamic bank ROA and supported **H10a.**

4.5.1.3.5 Moderating Effect of SC on the Relationship between NPF and ROA

The interaction term between NPF*SC in Table 4.12 on page 148 highlighted a positive and insignificant relationship with ROA (β = 0.0019, t = 1.2153). The relationship between NPF and ROA is negatively insignificant in Model 1. By incorporating SC as moderating variable, the relationship between NPF and ROA still indicated insignificant p-value but converted the direction of β value from negative (-0.0299) to positive (0.0019). Based on the results of the study, SC did not moderate the NPF-Malaysian Islamic ROA relationship, thus did not support **H11a.**

4.5.1.3.6 Moderating Effect of SC on the Relationship between OE and ROA

The OE demonstrated a strong and inverse relationship with ROA at a 1% significant level in Model 1. This relationship did not change post-SC inclusion as an independent variable in Model 2. Notwithstanding, the SC-ROA interaction in Model 3 changed the relationship direction from negative to positive with a 5% significant level. The results of hierarchical regression illustrated in Table 4.12 (see page 148) implied that the interaction term OE*SC was positively and significantly associated with ROA (β = 0.0004, t = 2.5242). This result revealed a high level of SC effectiveness could optimise

Islamic bank financial performance despite operation inefficiency. Based on results the study, SC moderated the relationship between OE and ROA among Malaysian Islamic banks and supported **H12a.**

4.5.2 Moderating Effects of SC on the Relationship between Shariah Compliance and ROE

Table 4.13 presents the hierarchical regression results of the moderating effects of SC on the relationship between Shariah compliance and ROE. The results of analysis were presented based on the evaluation stages (Models 1, 2, and 3).

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Table 4.13
Hierarchical Panel Regression Results of Moderating Effects of SC on the Relationship between Shariah Compliance and ROE

Variables	Model 1		Model 2		Model 3	
	Beta	t	Beta	t	Beta	t
SCF	-0.0301	-0.6311	-0.0270	-0.5362	-0.2012	-1.5537
ZKT	8.4505	3.6900***	8.1883	3.5031***	3.3855	0.5438
ADV	0.3171	1.9535*	0.3126	1.9270*	1.0285	2.6759***
HF	0.0315	0.9877	0.0294	0.8976	0.0315	0.5011
NPF	-0.4423	-2.4486**	-0.4324	-2.2461**	0.1125	0.2117
OE	-0.2157	8.3418***	-0.2160	-8.6138***	-0.4203	-7.9046***
SIZE	-1.3947	-1.5803	-1.4178	-1.6716*	-1.5169	-1.8309*
LEV	0.2026	0.8422	0.2136	0.8653	0.2344	0.9639
SC			0.0045	0.4078	-0.3047	-1.8458*
SCF*SC					0.0028	1.4991
ZKT*SC					0.1177	1.2970
ADV*SC					-0.0083	-2.4380**
HF*SC					-6.54E-05	-0.0917
NPF*SC					-0.0075	-0.8403
OE*SC					0.0028	4.5191***
Constant	16.1201	0.8541	14.9198	0.7519	33.7429	1.8922
Adjusted R^2	0.8357		0.8380		0.8383	
Change in R^2	-		0.0057		0.0003	
F-Stat	34.1719		33.3340		26.9275	
Prob(F-stat)	0.0000		0.0000		0.0000	
N	151		151		151	

*Note: *p<0.10, **p<0.05, ***p<0.01*

Notes: ROA is return on assets measured by net profit to average total assets; ROE is return on equity measured by net profit to average total shareholder's equity; SCF is Shariah-compliant financing is measured by finance income to total income; ZKT is Zakat is measured by total zakat to net assets; ADV is advertising measured by advertising expenses to total expenses; HF is household financing is measured by household financing to total financing; NPF is no-nperforming financing measured by non-performing financing to total financing; OE is operational efficiency is measured by total expenses to total revenue; SC is Shariah committee is measured by dividing total number of SC recommendations respected by banks to four Shariah committee characteristics (number of meetings, number of Shariah committee, number of Shariah committees hold doctorate, number of Shariah committee hold degree in accounting or finance); SIZE is size of the Islamic banks is measured by natural logarithm of total assets; LEV is leverage is measured by total liabilities to total assets. SCF*SC is interaction term of Shariah-compliant financing with Shariah committee; ZKT*SC is interaction term of zakat with Shariah committee; ADV*SC is interaction term of advertising with Shariah committee; HF*SC is interaction term of household financing with Shariah committee; NPF*SC is interaction term of non-performing financing with Shariah committee; OE*SC is interaction term of operational efficiency with Shariah committee.

4.5.2.1 Model 1

In Table 4.13, model 1 proved significant at 0.0000 levels with an adjusted R^2 of 0.8357. The regression model constituting SCF, ZKT, ADV, HF, NPF, and OE demonstrated a good fit and could explain 83.57% of Islamic bank ROE. Four predictors proved to be significant. ZKT (β = 8.4505, t = 3.6900) and ADV (β = 0.3171, t = 1.9535) positively and significantly impacted ROE. Meanwhile, the NPF (β = -0.4423, t = -2.4486), OE (β = -0.2157 t = -8.3418) negatively and significantly impacted the Malaysian Islamic bank ROE. However, the SCF (β = -0.0301, t = -0.6311) and HF (β = 0.0315, t = 0.9877) predictors insignificantly affected the Malaysian Islamic bank ROE.

4.5.2.2 Model 2

The SC was incorporated as a moderating variable in this model. Following Table 4.13, this model proved significant at 0.0000 level with an adjusted R^2 value of 0.8380: slightly bigger than the adjusted R^2 value = 0.8357 in Model 1. Thus, the model could almost justify the same variation in ROE with a difference of positive increase (0.0057) in the adjusted R^2 with the inclusion of SC. Likewise, four predictors proved to be significant in this model. The ZKT (β = 8.1883, t = 3.5031) and ADV (β = 0.3126, t = 1.9270) positively and significantly impacted ROE. Other predictors, such as NPF (β = -0.4324, t = -2.2461) and OE (β=-0.2160 t=-8.6138) negatively and significantly affected the Malaysian Islamic bank ROE. Meanwhile, the SCF (β=-0.0270, t=-0.5362) and HF (β=0.0294, t=0.8976) predictors insignificantly impacted the Malaysian Islamic bank ROE.

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4.5.2.3 Model 3

Model 3 justifies the analysis of the relationship between Shariah compliance (inclusive of moderating variable), variable interactions (SCF, ZKT, ADV, HF, NPF, SC, SCF*SC, ZKT*SC, ADV*SC, HF*SC, NPF*SC, and OE*SC), and ROE (dependent variable). Following Table 4.13, this model proved significant at 0.0000 level with an adjusted R^2 0.8383. A positive change of 0.0003 points was identified in the value of adjusted R^2 with the inclusion of SC and interactions terms. Based on the study outcomes, SC and its interactions with the Shariah compliance variables could better explain the ROE variation compared to Models 1 and 2. The Model 3 results have been discussed and are presented below.

4.5.2.3.1 Moderating Effect of SC on the Relationship between SCF and ROE

The hierarchical regression outcomes illustrated in Table 4.13 between SCF*SC and ROE demonstrated an insignificant and negative relationship effect with (β = 0.0028, t = 1.4991) for Malaysian Islamic banks. The relationship between SCF and ROE is negatively insignificant in Model 1. By incorporating SC as moderating variable, the relationship between SCF and ROE still indicated insignificant p-value but changed the direction of β value from negative (-0.0301) to positive (0.0028) (see Table 4.13). Therefore, SC did not moderate the SCF-ROE relationship among Malaysian Islamic banks and did not support **H7b**.

4.5.2.3.2 Moderating Effect of SC on the Relationship between ZKT and ROE

The hierarchical regression results illustrated in Table 4.13 between ZKT*SC and ROE implied an insignificant negative outcome (β = 0.1177, t = 1.2970). Although the ZKT and ROE relationship proved to be positively significant in Model 1, the introduction

of SC as a moderating variable in Model 3 rendered the ZKT-ROE relationship insignificant. The direction of the β value remained unchanged as presented in Table 4.13. The moderation results paralleled Barron and Kenny's (1986) moderation technique. Based on the results of the study s, a high level of SC effectiveness catalysed Islamic bank ZKT contribution and bank ROE. Hence, the Model 3 outcome implied that SC moderated the ZKT-ROE relationship and supported **H8b**.

4.5.2.3.3 Moderating Effect of SC on the Relationship between ADV and ROE

The ADV was positively related to ROE at a 10% significant level in Model 1. This relationship remained unchanged post-SC inclusion as an independent variable in Model 2. Regardless, the SC-ROE interaction significantly changed the relationship direction from positive to negative at a 5% significant level. Based on the hierarchical regression results presented in Table 4.13 (see page 154), the interaction term ADV*SC was negatively and significantly associated with ROE (β = -0.0083, t = -2.4380). Following the results of the study, a high level of SC effectiveness could elevate bank ROE despite minimal bank advertising. The Model 3 results implied that SC moderated the ADV-ROE relationship and supported **H9b**.

4.5.2.3.4 Moderating effect of SC on the Relationship between HF and ROE

The hierarchical regression outcomes in Table 4.13 between HF*SC and ROE demonstrated an insignificant and negative outcome (β = -6.54E-05, t = -0.0917). The HF-ROE correlation was initially positively insignificant in Model 1. The introduction of SC as a moderating variable in the HF-ROE relationship still indicated an insignificant p-value and changed the direction of the β value from positive (0.0315) to

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negative (-6.54E-05) as outlined in Table 4.13. Resultantly, SC did not moderate the HF-ROE relationship among Malaysian Islamic banks and did not support **H10b**.

4.5.2.3.5 Moderating Effect of SC on the Relationship between NPF and ROE

The hierarchical regression outcomes in Table 4.13 between NPF*SC and ROE implied an insignificant negative result (β =-0.0075, t=-0.8403). Although the NPF-ROE relationship was negatively significant in Model 1, the introduction of SC as a moderating variable in Model 3 rendered the NPF-ROE relationship insignificant. The direction of the β value remained unchanged as demonstrated in Table 4.13. The moderation outcome followed Barron and Kenny's (1986) moderation method. Resultantly, a high level of SC effectiveness could improve the bank ROE and reduce NPF. As such, the results in Model 3 implied that SC moderated the NPF-ROE relationship and supported **H11b**.

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4.5.2.3.6 Moderating Effect of SC on the Relationship between OE and ROE

The OE demonstrated a strong and inverse relationship with ROE at a 1% significant level in Model 1, similar to ROA regression model. This relationship remained unchanged post-SC inclusion as an independent variable in Model 2. Interestingly, the SC-ROE interaction significantly changed the relationship direction from negative to positive at 1% significant level. The hierarchical regression outcomes presented in Table 4.13 (see page 154) demonstrated that the interaction term OE*SC was positively and significantly associated with ROE (β = 0.0028, t = 4.5191). Based on the study findings, a high level of SC effectiveness could elevate Islamic bank financial performance in terms of ROE despite the presence of inefficiency of operation. The

Model 3 results implied that SC moderated the OE-ROE relationship and supported **H12b**.

4.5.3 Summary of Hierarchical Regression Results of Moderating Effects of Shariah Committee on the Relationship between Shariah Compliance and Financial Performance

A summary of Shariah compliance and financial performance (ROA and ROE) is presented in Tables 4.14 and 4.15 while Table 4.16 outlines the supported and unsupported study hypotheses.

Table 4.14
Summary of Hierarchical Panel Regression Results of Shariah Compliance and ROA

Independent Variables	ROA	Interaction	ROA
SCF	**Significant (+)**	SCF*SC	Insignificant (-)
ZKT	**Significant (+)**	ZKT*SC	Insignificant (-)
ADV	**Significant (+)**	ADV*SC	Insignificant (-)
HF	Insignificant (+)	HF*SC	**Significant (+)**
NPF	Insignificant (-)	NPF*SC	Insignificant (+)
OE	**Significant (-)**	OE*SC	**Significant (+)**

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Table 4.15
Summary of Hierarchical Panel Regression Results of Shariah Compliance and ROE

Independent Variables	ROE	Interaction	ROE
SCF	Insignificant (-)	SCF*SC	Insignificant (+)
ZKT	**Significant (+)**	ZKT*SC	Insignificant (+)
ADV	**Significant (+)**	ADV*SC	**Significant (-)**
HF	Insignificant (+)	HF*SC	Insignificant (-)
NPF	**Significant (-)**	NPF*SC	Insignificant (-)
OE	**Significant (-)**	OE*SC	**Significant (+)**

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Table 4.16
Summary of Hypotheses Test Results of Effects of Shariah Committee on the Relationship between Shariah Compliance and Financial Performance

Hypotheses	Results
H7a: SC effectiveness moderates the relationship between Shariah-compliant financing and the ROA of Islamic banks in Malaysia.	**Supported**
H7b: SC effectiveness moderates the relationship between Shariah-compliant financing and the ROE of Islamic banks in Malaysia.	**Not Supported**
H8a: SC effectiveness moderates the relationship between Zakat and the ROA of Islamic banks in Malaysia.	**Supported**
H8b: SC effectiveness moderates the relationship between Zakat and the ROE of Islamic banks in Malaysia.	**Supported**
H9a: SC effectiveness moderates the relationship between advertising and the ROA of Islamic banks in Malaysia.	**Supported**
H9b: SC effectiveness moderates the relationship between advertising and the ROE of Islamic banks in Malaysia.	**Supported**
H10a: SC effectiveness moderates the relationship between household financing and the ROA of Islamic banks in Malaysia.	**Supported**
H10b: SC effectiveness moderates the relationship between household financing and the ROE of Islamic banks in Malaysia	**Not Supported**

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Table 4.16 (Continued)

Hypotheses	Results
H11a: SC effectiveness moderates the relationship between non-performing financing and the ROA of Islamic banks in Malaysia.	**Not Supported**
H11b: SC effectiveness moderates the relationship between non-performing financing and the ROE of Islamic banks in Malaysia.	**Supported**
H12a: SC effectiveness moderates the relationship between operational efficiency and the ROA of Islamic banks in Malaysia.	**Supported**
H12b: SC effectiveness moderates the relationship between operational efficiency and the ROE of Islamic banks in Malaysia.	**Supported**

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4.6 Discussion on the Study Findings

In this section, the results of the data analysis are discussed. The discussion is focused on summarising the findings of the study based on the objectives of the study.

4.6.1 Objective of the Study 1: To investigate the relationship between Shariah-compliant financing and the financial performance of Islamic banks in Malaysia

The panel regression results in Table 4.9 (see page 142) implied a positive and significant relationship between SCF and ROA. Regardless, the ROE model outcome demonstrated an insignificant relationship between SCF and ROE.

The ROA model results corresponded to Pratama and Febrianshah (2020), Chowdhury and Mohd Rasid (2016), and Abbas and Arizah (2019) where SCF contracts constituting *Mudarabah* and *Musharakah* financing positively and significantly affected the financial performance proxied by ROA. Furthermore, Almanaseer and Alslehat (2016), Afkar (2017), Ijaiya et al. (2021), and Yusof and Isa (2021) revealed that debt-based financing (*Murabahah, Bai Ajil, Qard, and Ijarah*) positively impacted the bank ROA. Conclusively, the implementation of SCF contracts could enhance bank profitability instead of non-compliant financing products and services offered by conventional banks. Such contracts are also favoured by Muslim consumers given their adherence to Shariah principles (Amin, 2008; Abdul Rehman & Masood, 2012; Sayani & Miniaoui, 2013).

The results of the study complemented the stakeholder theory where good stakeholder rapport, particularly with Muslim customers, to preserve their religion through Shariah-compliant products and services would improve company performance. It is proved that stakeholders of Islamic banks expected Islamic banks to uphold Islamic values and principles as well as to provide justice to the society in business transaction (Dusuki, 2008). Therefore, the theory implies that by fulfiling the needs of stakeholders it could enhance the performance of the banks.

4.6.2 Objective of the Study 2: To investigate the relationship Zakat and the financial performance of Islamic banks in Malaysia

The panel regression results in Table 4.9 depict a positive and significant relationship between Zakat and financial performance for both ROA and ROE models.

The study findings corresponded to Al-Homaidi (2021) who revealed significant positive impacts of Zakat on the financial performance proxied by ROA and ROE. Regarding ROA models, the results of the study paralleled Tuan Ibrahim et al. (2020) and Auliyah and Basuki (2021). Meanwhile, the results of ROE model corresponded to Saeed and Alali (2020) and Nizar Al-Malkawi and Javaid (2018). Suggestibly, Islamic banks that engage in socially accountable activities through Zakat contribution would boost economic growth, uphold justice, and manifest organisational success. Regardless, the results of the study contradicted Rosman et al. (2019) who found no evidence that Zakat contribution could substantially impact the ROA and ROE of Malaysian Islamic banks.

Regarding the real Islamic banks goals of achieving social welfare and benefits, Zakat could function as a revenue-generation tool while simultaneously preserving the life of community members as a whole. The study outcomes paralleled the stakeholder theory from an Islamic perspective where Islamic banks should fulfil stakeholder needs by incorporating their social and Islamic values through Zakat payment into economic development plans apart from increasing their financial performance. This fulfilment would induce sustainable stakeholder support towards their products and services in the short-run and long run and optimise bank performance.

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4.6.3 Objective of the Study 3: To investigate the relationship between advertising and the financial performance of Islamic banks in Malaysia.

Following the statistical results presented on page 142, advertising positively and significantly affect the ROA and ROE of Islamic banks.

The results of ROA model corresponded to Acar and Temis (2017) and Kim et al. (2019) where advertising positively impacted organisational ROA. Meanwhile, Mulchandani et al. (2019) indicated that high advertising expenses potentially increase the bank ROE. Nevertheless, the study findings opposed that of Abdul Hamid et al. (2017) who revealed a significant and negative relationship between advertising and Malaysian Islamic bank ROA and ROE.

Based on the study outcomes, aggressive marketing approaches, such as advertising, would expose customers to the offered products and services. Such approaches aim to create a new customer pool. Effective advertising would develop customer loyalty, trust, and support and organisational values (Ndubisi, 2007; Ha et al., 2011; Amoako et al., 2017).

Owing to various stakeholder perspectives on advertising, all stakeholder interests should be regarded and incorporated into organisational advertising strategies and tactics (Polonsky & Hyman, 2007). As such, the study findings paralleled the stakeholder theory where stakeholder needs should be prioritised in planning a company advertisement. In Mokhtar and Samsudin (2015), advertising in Islam should serve to increase audience members' knowledge apart from commercialisation and earning profit and remind customers to uphold Islamic values, positive attitudes, and strong emotions for good behaviour. In this vein, effective advertising could preserve consumers' mind by imparting knowledge on Islamic bank values and principles.

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4.6.4 Objective of the Study 4: To investigate the relationship between household financing and the financial performance of Islamic banks in Malaysia

Based on the study hypothesis, household financing was positively associated with bank financial performance. Regardless, the statistical proof in the preceding section revealed an unsupporting hypothesis. An insignificant relationship between household financing and the bank financial performance was identified for both ROA and ROE models.

The research results did not support by most of past studies. Several empirical works disclosed a negative and significant household financing-bank financial performance relationship (Hirtle & Stiroh; 2007; Nakornthab, 2010; Buyukkarabacak & Valev, 2012; Nizar & Abdul Karim, 2021; Prativi & Anik; 2021). Although the high financing channelled to household sectors would lower bank performance following past studies, the current work determined an insignificant and positive household financing-Islamic bank financial performance association. This may be because of the affordable Islamic bank products and services could minimise the number of defaulters. Meanwhile, Nakornthab (2010) supported that household financing is typically perceived to be a low risk given the segmented borrowers and their relatively smaller financing amount as compared to corporate financing.

Therefore, providing financing for household sectors could protect family institutions with no adverse impacts on Islamic bank performance. It is provision of stakeholder theory that balancing the needs of such stakeholder helps in achievement of economic advantage of the company.

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4.6.5 Objective of the Study 5: To investigate the relationship between non-performing financing and the financial performance of Islamic banks in Malaysia

The study hypothesized a significant and negative relationship between non-performing financing and financial performance of the banks. However, the estimated results in Table 4.9 implied a negative and significant relationship between NPF and ROE. Meanwhile, the results of the study demonstrated a negative and insignificant relationship between NPF and ROA.

The ROA model outcome paralleled Alshebmi et al. (2020) who disclosed an insignificant NPF-ROA link. The results of the study could be associated with the minimal amount of default payments by Islamic bank customers over the study period (2010 to 2019).

The regression results of the ROE model corresponded to Sanwari and Zakaria (2013), Laryea et al. (2016), Ozurumba (2016), and Etale et al. (2016) who revealed a significant and negative effect of asset quality proxied by the NPF on bank ROE. Perceivably, the asset quality measured by the NPF ratio adversely impacted bank ROE. In other words, a low NPF ratio value could increase Islamic bank profitability. Also, Adeolu (2014) affirmed that improper asset quality management potentially increases NPF and instigates financial distress in banks.

The stakeholder theory posits that management should operate the business in a way that is advantageous to all stakeholders. According to Frank and Bassey (2021) stakeholder theory provides a new insight into possible rationale for adopting credit risk management, since the motivation of a firm to satisfy the stakeholders needs is the

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driving force for extension of bank loans, which can ensure interest income that can lead to increased profitability of the firm. Thus, the results of the study reflect to the stakeholder theory where banks will conduct activities as expected by stakeholders by mitigating credit risk specifically by concentrating on risk management to reduce non-performing loans to banks.

4.6.6 Objective of the Study 6: To investigate the relationship between operational efficiency and the financial performance of Islamic banks in Malaysia

The panel regression results involving the OE-financial performance relationship demonstrated a significant and negative relationship between the two variables. The OE inversely impacted both the bank ROA and ROE. The regression results of OE on ROA and ROE paralleled Olson and Zoubi (2011), Dietrich and Wanzenried (2014), and Adelopo et al. (2018) where a significant and negative impact of OE was determined on the financial performance proxied by both organisational ROA and ROE. As such, high OE would result in bank profitability by mitigating Islamic bank costs. Resultantly, bank operational costs should be reduced to sustain high OE and bank financial performance.

Theoretically, the aforementioned statement reflects the stakeholder theory where stakeholders' resources should be safeguarded for optimal organisational performance. Thus, the bank management should strive to increase operational efficiency given the important roles of operational efficiency as a reflection of the competitive and financial performance level of Islamic banks.

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4.6.7 Objective of the Study 7: To investigate the moderating effects of SC effectiveness on the relationship between Shariah compliance and the financial performance of Islamic Banks in Malaysia

The SC interacted with independent variables to assess their roles in moderating the variables with bank financial performance. Most of the ROA and ROE model findings proved to be different. Generally, the study outcomes implied that SC effectiveness significantly moderated the relationship between Shariah compliance and Islamic bank financial performance. The results of current study corresponded to Iryani et al. (2019), Neifar et al. (2020), Eldaia et al. (2020), and Siswanti et al. (2021) where SC could moderate the impact of internal and external forces on Islamic bank performance.

Much research revealed a significant and direct relationship between SC and financial performance (Rahman & Bukair, 2013; Mollah & Zaman 2015; Nomran et al., 2018; Jabari & Muhamad, 2021; Grassa & Matoussi; 2014; Baklouti, 2020; Aslam & Haron, 2020; Khan & Zahid, 2020). Such empirical proof strongly highlighted the pivotal roles played by an effective SC in establishing values and high Islamic bank performance. Also, the current study findings corresponded to Farook et al. (2011), Mallin et al. (2014), Mollah and Zaman (2015), and Ali Bukhari (2020) in forecasting SC as a substantial catalyst that facilitates Islamic bank contributions to social justice and the protection of all stakeholder interests.

Specifically, SC is found to moderate on the association between SCF and ROA. However, SC did not moderate the relationship between SCF and ROE. This implies that Islamic banks with effective SC would experience high financial attainment in terms of ROA compared to those without an effective SC. The reason is SC plays an

essential role in providing objective and sound advice to IFIs and ensuring Shariah-compliant aims and operations, businesses, affairs, and activities. Likewise, Besar et al. (2009), Muhamad Sori, Mohamad and Mohd Rashid (2015), and Hussain (2019) contended that SC strengthens financing contracts by granting compliance approval of the financing contracts on offer.

In addition, the results of the study found that SC moderated the relationship between ZKT and financial performance for both ROA and ROE models. This implies that Islamic banks that contribute Zakat payments require strong support from SC for optimal financial performance. Specifically, SC implies one of the Zakat management players who decide on Zakat contribution with the bank management and BODs (Badarulzaman et al., 2016; Mohd Abbas, Sulaiman & Abu Bakar, 2018; Rosman et al., 2019). Such studies noted that the responsibility of SC in Zakat-oriented decisions for Islamic banks implies approving Zakat computation methods.

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Based on the study findings, SC moderated the relationship between ADV and financial performance for both the ROA and ROE models. As such, Islamic banks who plan to spend for advertising strategy also require strong SC support for high financial performance. The reason could be that SC assists Islamic banks to screen the advertising method applied by banks. According to Othman et al. (2013), SC is accountable for endorsing and validating relevant documentation, such as Shariah-compliant marketing advertisements.

Meanwhile, SC is found to moderate significantly on the association between HF and ROA. This implies that ROA could be easily attained with effective SC roles in

household financing management. This outcome corresponded to Ahmed, Rahman and Ahmed (2006) and Meslier, Risfandy and Tarazi (2020) who contended that the Islamic bank SC are considered to play an important role in controlling the distribution of financing to the clients.

In case of NPF, SC found to moderate the relationship between NPF and ROE. This finding entails that Islamic banks in managing to reduce risk interm of NPF would require strong SC support for improved bank ROE. Likewise, Mollah, Skully and Lijeblom (2017), AlAbbad, Hassan and Saba (2019), and Isa and Lee (2020) argued that SC should collaborate with the Islamic bank management to mitigate and control the ensuing risk factors in Islamic banks.

The SC moderated the relationship between OE and financial performance for both the ROA and ROE models. This indicates that at a high level of SC effectiveness could enhance the bank financial performance in terms of ROA and ROE with high OE. This implies that Islamic banks with optimal operational efficiency require strong SC support to facilitate high financial performance. Similarly, Farag, Mallin and Ow-Yong (2018), Nomran et al. (2018), and Saeed and Saeed (2018) asserted that SC assist towards reducing the inefficiency of operations in Islamic banks.

Although effective SC did not moderate the SCF-ROE, HF-ROE, NPF-ROA relationships in this study, the findings corresponded to Mohamad et al. (2016), Hussain et al. (2016), and Alam and Miah (2021) where the SC in Islamic banking encounter intricacies involving SC autonomy from managerial influences and conflicts of interest. Meanwhile, Tiby and Mohamed (2011) and Farook and Farooq (2013) and Bahari and

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Baharudin (2016) argued that the lack of expertise and qualified Shariah scholars in IFIs renders it challenging for the development of Islamic banking and finance to be at par with conventional banks.

Most of the study findings corresponded to the resource dependency theory where the board governance function as an essential link between the firm and external resources for optimal performance (Pfeffer, 1973). Perceivably, this theory relates to the social capital of an individual SC, such as the resources offered by SC for high organisational performance. For example, the SC may transfer valuable resources in terms of expertise and skills during committee-level meeting negotiations and strategic decision-making processes to regulate and guide Islamic banks towards achieving their real objectives. As such, regulators and central banks should not disregard the essentiality of SC in monitoring the Islamic bank financial performance.

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4.7 Summary of the Chapter

This chapter justified the data analysis from information processing to deriving the final results with empirical tests and subsequent discussions. The assumption of panel regression analysis was initially discussed and tested followed by the panel data analysis assumption. The empirical findings were explained by the direct effects of the independent variables and the moderating effect of SC. The F-statistics for all regression models proved to be significant, thus implying that the regression models fit the data for both ROA and ROE models. Regarding the direct effect analysis, this study encompassed a total of six independent and two control variables.

Regression analysis revealed that four out of the six independent variables (SCF, ZKT, ADV, and OE) indicated a strong correlation to the financial performance proxied by ROA. Meanwhile, the ROE model documented an important relationship between four independent variables (ZKT, ADV, NFL, and OE) with the bank financial performance. The hierarchical regression analysis of the SC moderation impact on independent and dependent variables revealed that SC moderated the SCF, ZKT, ADV, HF, and OE influence on financial performance with regards to ROA. Additionally, SC moderated the influence of ZKT, ADV, NPF, and OE on financial performance in terms of ROE. Overall, the results suggest that SC has pronounced impact in moderating the relationship between Shariah compliance and the financial performance of Malaysian Islamic banks.

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CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter reviews the study findings and elaborates on the primary research contributions and limitations with recommendations for future research. Section 5.2 presents the study overview while Section 5.3 presents a recapitulation of the empirical outcomes. Sections 5.4 and 5.5 discuss the research contributions and implications, respectively. Meanwhile, Sections 5.6 and 5.7 highlight the study limitations and recommendations for future research, respectively.

5.2 Overview of the Study

This study investigates the relationship between Shariah compliance and the financial performance of Malaysian Islamic banks, as well as the moderating effect of the effectiveness of the Shariah Committee (SC) on this relationship. The motivation for studying the relationship between Shariah compliance and the financial performance comes from the accelerated growth of the financial performance of Islamic banks in Malaysia as well as the inconclusive evidence of the impact of current compliance practices on the financial performance of Islamic banks. Meanwhile, the motivation to focus on the impact of SC as a moderating variable on Shariah compliance-financial performance relationship stems from the important of a Shariah governance mechanism and internal monitoring of Islamic banks which was not tested before.

The current research emphasised six independent variables: Shariah-compliant financing (SCF), Zakat (ZKT), advertising (ADV), household financing (HF), non-performing financing (NPF) and operational efficiency (OE). The aforementioned variables were selected based on the *maslahah* of *Maqasid Shariah*. Meanwhile, the

dependent variables were represented by the bank return on asset (ROA) and return on equity (ROE) while the moderating variable was characterised by SC effectiveness. Two control variables, size (SIZE) and leverage (LEV), were also incorporated into the study. The underpinning theories involved the stakeholder and resource dependency theories. The main study data were derived from the annual reports of 16 Malaysian Islamic banks between 2010 and 2019. Panel data analysis was utilised to achieve the research objectives. Panel regressions were forecasted using fixed-effect and random-effect models for study outcome assessment. The following section presents a recapitulation of the findings.

5.3 Recapitulation of the Findings

The study outcomes are sequentially presented based on the seven research questions below.

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5.3.1 Research Objective 1

To investigate the relationship between Shariah-compliant financing and the financial performance of Islamic banks in Malaysia.

The Shariah-compliant financing (SCF) significantly and positively affected financial performance in terms of ROA. Regardless, SCF failed to reflect any significant impacts on ROE. Based on the research outcomes, Islamic banks could present financing contracts based on fundamentals of the Islamic principle, which promote more advantages to the contracting parties and simultaneously enhance organisational financial performance rather than using conventional financing contracts.

5.3.2 Research Objective 2

To investigate the relationship between Zakat and the financial performance of Islamic banks in Malaysia.

The Zakat (ZKT) influence on financial performance proved to be positively significant through ROA or ROE. Based on the study outcomes, the revenue and wealth generated from Islamic banking operations should be utilised to fulfil stakeholder interests and facilitate social welfare. Resultantly, increased ZKT contributions by Malaysian Islamic banks could elevate organisational performance. Therefore, Islamic banks could satisfy their stakeholder interests, such as social obligation through ZKT payment.

5.3.3 Research Objective 3

To investigate the relationship between advertising and the financial performance of Islamic banks in Malaysia.

Advertising (ADV) positively impacted the bank ROA and ROE. High ADV expenses would increase the bank profitability represented by ROA and ROE. The research outcomes appeared to support the marketing strategy implemented by Malaysian Islamic banks and encourage more advertising-oriented investments to attract customers and educate them on the benefit of Islamic financial products and services.

5.3.4 Research Objective 4

To investigate the relationship between household financing and the financial performance of Islamic banks in Malaysia.

Although this study predicted a negative household financing-financial performance relationship, household financing insignificantly affected both ROA and ROE.

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Resultantly, household sectors should be provided with more household financing, which would not undermine bank financial performance from 2010 to 2019. This is attributed to several reasons, mainly due to the fact that Islamic banks offer affordable products and services to their customers and effectively manage defaulted payment from household sectors.

5.3.5 Research Objective 5

To investigate the relationship between non-performing financing and the financial performance of Islamic banks in Malaysia.

The study hypothesised a negative relationship between non-performing financing (NPF) and financial performance. Nevertheless, NPF negatively and significantly affected ROE alone with insignificant impacts on ROA. In this vein, Malaysian Islamic banks need to exercise more caution and optimise credit risk management to reduce NPF of the bank for high ROE.

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5.3.6 Research Objective 6

To investigate relationship between operational efficiency and the financial performance of Islamic banks in Malaysia.

Operational efficiency (OE) is hypothesised to have a negative impact on the financial performance of Islamic banks. Based on results of the study, OE negatively impacted financial performance through ROA and ROE. Overall, the Islamic bank financial performance could be enhanced by alleviating bank operational costs.

5.3.7 Research Objective 7

To investigate the moderating effects of SC effectiveness on the relationship between Shariah compliance and the financial performance of Islamic banks in Malaysia.

The SC interacted with independent variables to assess the SC roles in moderating them with bank financial performance. The results derived from both the ROA and ROE models significantly varied.

Based on the hierarchical regression result summary, the interaction between SCF*SC and ROA demonstrated a negative and significant correlation. The SC moderated the SCF impacts on Islamic bank ROA. Meanwhile, the interaction between SCF*SC and ROE implied an insignificant relationship similar to the direct SCF-ROE relationship. Overall, SC did not moderate the SCF impact on Islamic bank ROE.

Based on the hierarchical regression outcome, the ZKT*SC-ROA interaction reflected a negative and insignificant relationship. The SC moderated the ZKT results on ROA from a significantly positive result to an insignificantly negative relationship. Meanwhile, the regression results implied that the ZKT*SC-ROE interaction demonstrated a positive and insignificant relationship. Summarily, SC moderated the ZKT results on ROE from a significantly positive result to an insignificantly positive finding.

The hierarchical regression outcome implied that the ADV*SC-ROA interaction denoted a negative and insignificant relationship. The SC moderated the ADV results on ROA from a significantly positive result to an insignificantly negative relationship.

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Meanwhile, the ADV*SC-ROE interaction demonstrated a negative and significant relationship. Overall, SC moderated the ADV impact on Islamic bank ROE.

Based on the hierarchical regression outcome, the HF*SC-ROA interaction reflected a positive and significant relationship. The SC moderated the HF impact on the Islamic bank ROA. Meanwhile, the regression result revealed that the HF*SC-ROE interaction demonstrated an insignificant relationship similar to the direct HF-ROE correlation. Summarily, SC did not moderate the HF impact on Islamic bank ROE.

The hierarchical regression outcome denoted that the NPF*SC-ROA interaction implied an insignificant relationship similar to the direct NPF-ROA relationship. The SC did not moderate the NPF impact on Islamic bank ROA. Meanwhile, the regression outcome implied the NPF*SC-ROE interaction reflected a negative and insignificant relationship. The SC moderated the NPF results on ROE from a significantly positive result to an insignificantly negative counterpart. The OE*SC interaction results significantly and positively impacted both the bank ROA and ROE. Notably, SC moderated the OE effect on both Islamic bank ROA and ROE.

Conclusively, the hierarchical regression results disclosed that SC moderated the SCF, ZKT, ADV, HF, and OE impacts on the financial performance proxied by ROA. Additionally, SC moderated the ZKT, ADV, NPF, and OE impacts on the financial performance proxied by ROE. The derived interactions implied that regulators and central banks should highly regard pivotal SC roles to monitor the financial performance of Islamic banks.

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5.4 Contribution of the Study

The study findings expanded the current body of knowledge with theoretical and empirical contributions. The contributions are presented as follows:

5.4.1 Theoretical Contribution

This study provided insightful information on financial performance management by extending the current literature. The study empirically tested the (i) theoretical Shariah compliance practices-financial performance relationship and (ii) moderating effect of SC. A total of 12 hypotheses were developed to address the study questions. Two theories (stakeholder and resource dependency) were underpinned in this study to justify the relationship between Shariah compliance and financial performance as well as the moderating effects of SC on this this relationship. Also, the theories were used to hypothesise the framework of the study.

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This study expands current literature by examining Shariah compliance practices under the *maslahah* of *Maqasid Shariah* framework and measurement. Islamic banks should implement the *Maqasid Shariah*-oriented dimensions to evaluate their social contribution as it constitutes all social measurement aspects and attains *Maqasid Shariah*. The study outcomes also offered evidence of how *Maqasid Shariah*-oriented practices influenced Islamic bank financial performance.

The study findings also offered empirical support for the research framework, which contributes to the stakeholder theory with proof that complements their propositions. Under the stakeholder theory, Donaldson and Preston (1995) argued that stakeholder or social management and practices could impact corporate performance. Consistent with

the stakeholder theory, engaging in Shariah compliance practices by Islamic banks could establish a good stakeholder rapport and fulfil their needs to achieve high financial performance.

The SC roles impacted Shariah compliance practices for high financial performance among Islamic banks. Given that most past research on the direct SC relationship towards financial performance (Nomran, Haron & Hassan, 2018; Buallay, 2019; Baklouti, 2020; Jabari & Muhamad, 2021) and the Shariah compliance-financial performance correlation proved inconclusive, this study assessed SC effectiveness as the study moderator. As such, the study performed theoretical contributions by empirically investigating the moderating role of SC on the Shariah compliance-financial performance relationship. Islamic banks require an effective SC for improved financial performance using Shariah compliance practices and activities. As such, Islamic banks need to cautiously select effective SC for high financial performance.

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Much research has addressed financial performance issues through the stakeholder theory. Nevertheless, the current study applied the resource dependency theory regarding the moderating variable of SC. In this vein, the study has provided a sound understanding of the resource dependency theory in Malaysian Islamic banking where the presence of SC essential controls and monitors Islamic banking financial performance. The inclusion of this theory and the interaction of several others from which the Shariah compliance indicators were moderated by SC proved to be the significant factors affecting Malaysian Islamic bank financial performance. Thus, the stakeholder theory is expanded by the inclusion of resource dependency theory on the moderating effects of SC on the Shariah compliance practices-financial performance

relationship, which remains underexplored. The empirical outcomes also complemented the notion underlying the resource dependency theory where SC primarily aims to provide adequate monitoring for stakeholder protection and the enhancement of bank financial performance.

5.4.2 Empirical Contribution

The empirical study contributions are divided into two sub-sections: new findings and the moderating variable of SC as a new focus area.

5.4.2.1 New Findings

This study expands the current body of literature on Islamic bank financial performance with new evidence on the financial performance of Malaysian Islamic banks. The study discovered the simultaneous influence of SCF on financial performance in the Islamic bank management context unlike previous studies (Pratama & Febriansya, 2020; Chowdhury & Mohd Rasid, 2017; Abbas & Arizah, 2019; Syahri & Haryito, 2020) that only emphasised certain financing (*Mudarabah* and *Musharakah*).

Meanwhile, the financial performance proxied by Malaysian Islamic bank ROA and ROE could be positively influenced by ZKT contribution. Contrary to the study of Rosman et al. (2019), there is no evidence that ZKT contribution could substantially affect Malaysian Islamic bank ROA and ROE.

Based on the study outcomes, ADV expenditure positively and significantly affected the financial performance measured by ROA and ROE. Conversely, a study by Abdul

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Hamid et al. (2017) on Malaysian Islamic banks implied an inverse ADV-financial performance relationship measured by ROA and ROE.

As opposed to Nizar and Abdul Karim (2021) who disclosed that high HF decreases the financial performance of Malaysian commercial banks, this study discovered a different outcome for Malaysian Islamic Islamic banks. Resultantly, a rise in HF does not deteriorate the financial performance level of Malaysian Islamic banks.

5.4.2.2 Moderating Variable of Shariah Committee as New Focus Area

The current study examined the direct relationship between Shariah compliance practices and the financial performance of Malaysian Islamic banks and investigated a novel area entailing the moderating effects of SC on the Shariah compliance-Islamic bank financial performance relationship. Based on the hierarchical regression model test, this study made a first-time discovery where SC effectiveness moderated the Shariah compliance-financial performance relationship.

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Unlike previous study, this study does not only examine relationship between the direct relationship between Shariah compliance relationship and financial performance of the Islamic banks in Malaysia but examine new area which is the moderating effect of SC on the relationship between Shariah compliance and financial performance of the Islamic banks. Using hierarchical regression model test this study offered a first-time evidence that SC effectiveness moderate the relationship between Shariah compliance practices and financial performance. The results provide empirical evidences that the SC effectiveness strengthen the effects of SCF, ZKT, ADV, HF and OE on financial

performance interms of ROA indicators while strengthen the effects of ZKT, ADV, NPF and OE on financial performance in terms of ROE indicator.

5.5 Implication of the Study

The current study findings resulted in two implication types that could be proposed by referring to the outcome significance. For example, the results could prove useful in policy development by relevant policymakers and regulators. The central bank and local government are also at the policy implication level while the bank management could utilise the study outcomes for policy implementation purposes. Such implications are summarised in the following sub-section.

5.5.1 Policy Implication

This study analysis constitutes several policy implications for the Malaysian government, regulatory bodies, and banks managers and shareholders.

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The study also highlighted implications for Islamic banks by indicating the insight in financial performance management practices within banks. The relevant parties could improve the current practices, processes, and protocols related to performance management practices. This study emphasised the essentiality of SC in decision-making to regulate financial performance indirectly. More actions and rules need to be executed and enforced, respectively, for optimal SC effectiveness to protect stakeholders and their interests in Malaysian Islamic banks given its essentiality in monitoring bank values. As such, relevant authorities especially BNM should develop new financial performance management policies for a distinct approach that distinguishes between Islamic and conventional banks.

The current study has identified potential SC roles to reduce the detrimental effects of Shariah compliance on bank financial performance. The study's findings will greatly encourage stakeholders and policymakers to push Islamic banks to strengthen their SC quality and structure while adhering more closely to suggestions with a focus on governance. In order to maximise this mitigation, SAC of BNM would need to have the necessary training abilities, developmental knowledge, and comprehension of various operational aspects and Shariah principles to the SC of Islamic banks.

Additionally, the SAC may grant the SC of the banks independent authority to monitor and make decisions based on their knowledge and abilities. Such a body ought to promote Islamic banks to carry out socially responsible initiatives and business practises that adhere to Shariah principles. Meanwhile, any new policies or procedures that could improve bank administration or operation may also be subject to regulation by the bank's SC itself.

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Moreover, this research contributed to implementation efforts that are aligned with local government initiatives in promoting *Maqasid Shariah* principles from any managerial aspects, specifically in IFIs. Moreover, BNM could improvise the social reponsibility of IFIs or amend current regulations that merely emphasise social responsibility disclosure. For instance, BNM might advise Islamic banks to increase their Zakat payments to the community because it might improve the banks' performance. It appears that this study has helped to achieve *Maqasid Shariah* goals for a lasting influence on the economy, community, and environment.

5.5.2 Practical Implication

Regarding practical significance, Islamic banks might consider the research output to improve their compliance practice management in line with its real objectives to support stakeholder interests and facilitate the sustainable economic growth of banks. The output could also alert the bank management to develop and integrate their compliance activities and operation with business strategies for improved bank financial performance, a competitive advantage over other industry players, and valuable customer retention.

Based on results of the study, Malaysian Islamic banks could improve their performance with more Shariah-compliant products and services to attract more customers. As a predominantly-Muslim community, Islamic bank products and services could appeal to customers and generate more income. Thus, Islamic banks need to improve their Shariah financing quality and maintain good bank performance.

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Concerning Zakat contribution, the positive effect of Zakat on financial performance is intriguing and crucial in light of the current emphasis on Zakat contribution. Local regulatory authorities should encourage all Islamic banks to pay Zakat for high bank profitability. For example, such banks should collaborate with State Islamic Religious Councils (SIRCs) to contribute Zakat as a means of aiding the poor and needy.

In terms of advertising, strategic marketing through advertisements is deemed important for optimal bank performance. Hence, Islamic banks should strive to improve their marketing approaches as a means of educating and exposing the public to Islamic bank product and service benefits. For example, financial institutions should

communicate with their customers to convey their bank value and quality using media advertisements.

The study results also implied that providing financing for household sectors positively and insignificantly impacted the bank financial performance. No evidence has been identified to date on the possibility of lowered financial performance through the provision of household financing. Islamic banks should also engage more in financing distribution to household sectors rather than business counterparts.

Meanwhile, non-performing financing negatively and significantly influenced the Islamic bank financial performance. Malaysian Islamic banks should effectively minimise non-performing financing through (i) negotiations with defaulters for possible payment solutions, (ii) non-performing loan rescheduling, and (iii) write-offs.

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Empirically, operational efficiency negatively and significantly impacted the financial performance of banks. The bank management should focus on minimising operational costs for higher efficiency in business management.

Malaysian Islamic banks could employ the research results to make beneficial choices regarding SC appointments and optimal governance for high organisational performance. As previously discussed, SC plays an important role in explaining Shariah compliance variable behaviours and their subsequent implications on financial performance. In this vein, relevant parties could gauge ideas on the strength of SC roles in monitoring the social responsibility of banks under the *Maqasid Shariah* principles represented by SCF, ZKT, ADV, HF, NPF, and OE. For example, investors could

internalise the advantages of an effective SC in monitoring specific elements that could facilitate their investment choices and guide them towards high-performing assets.

The role of effective SC on the Islamic bank financial performance could facilitate financial institutions, such as banks towards objective achievement. The bank management should seriously consider incorporating social responsibility and effective SC as the study found support for the interaction of both activities towards outstanding financial performance.

Lastly, the research results could serve Islamic banking and finance stakeholders by providing appropriate indicators for them to assess and commit to the social roles of Islamic banks. Such results would enable stakeholders, specifically investors, to select reputable Islamic banks that prioritise social roles and stakeholder interests. In this regard, investors could use the current study outcomes to gauge Malaysian Islamic banks and diversify their investment portfolios.

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Given the fact that variables based on *maslahah* of *Maqasid Shariah* elements and the inclusion of Shariah committee as a moderator have not been previously incorporated into the financial performance research link, the study is considered as a breakthrough in financial performance study when integrating those variables in Islamic banking area. Such different method and emerging result will be significant in providing insights for scholars and practitioners in Malaysia. The future scholars and the general public could equally benefit from the present study outcomes.

5.6 Limitation of the Study

This study encountered several limitations that require due consideration. First, this study was restricted to six Shariah compliance proxies based on *maslahah* of *Maqasid Shariah* of Imam Al-Ghazali's framework. The aforementioned framework was extensively discussed in past literature.

Second, this research emphasised financial performance proxied by bank ROA and ROE. Other financial performance indicators, such as net profit margin, net interest income, and market value were excluded. Non-financial performance involving service quality and customer and employee satisfaction were also omitted.

Third, the research data and results were derived from one country: Malaysia. As such, the study proved limited by its framework that only examined Malaysian Islamic banks. The research outcomes failed to represent the overall financial performance of Malaysian banks given the exclusion of conventional establishments. In this vein, the study could only be generalised across the context of Malaysian Islamic banks.

Fourth, the study only utilised the secondary data extracted from the annual reports of 16 Islamic banks available on their websites between 2010 and 2019.

5.7 Suggestion for Future Research

Several recommendations are highlighted below for future directions or studies and to overcome the current limitations.

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Future studies should consider the *Maqasid Shariah* framework from different Islamic scholars' viewpoints, such as those developed by Imam Al-Juwayni, Imam Al-Shattibi, Imam Al-Najjar, and other prominent Islamic scholars. This consideration would expose potential scholars to other dimensions that could be pivotal and insightful.

Second, future studies could assess relationships encompassing financial performance, non-financial performance, or both. Notably, non-financial performance indicators are deemed equally essential to measure organisational performance and elicit core competencies and areas that require improvement.

Third, future scholars could broaden their scope beyond the Islamic banking industry to include other non-banking institutions, such as the development of financial institutions and insurance sectors. For example, a comparative study between countries or regions incorporating the Islamic banking system could be holistically performed to gauge the Islamic bank financial performance. A comparative study involving Malaysia and MENA countries should be conducted to compare empirical outcomes and detect country-based specifications.

Fourth, future researchers could conduct qualitative or mixed-method analysis based on the proposed study dynamics given the prevalence of quantitative research.

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APPENDIX 1

ROA of Islamic Banks in Malaysia

No.	Banks	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1.	Bank Islam Malaysia	1.14	1.19	1.23	1.19	1.18	1.07	1.05	1.03	1	0.97
2.	Bank Muamalat Malaysia	0.52	0.79	0.47	0.87	0.76	0.42	0.60	0.66	0.79	0.77
3.	MBSB Bank	-1.67	0.01	-0.27	0.28	0.51	0.02	0.14	-0.15	1.15	0.97
4.	Al-Rajhi Banking & Investment Corporation	0.43	0.06	0.22	0.04	0.07	0.16	0.09	0.12	0.14	0.42
5.	Kuwait Finance House	-0.94	-0.72	0.67	1.09	0.94	-0.36	-0.27	0.05	0.22	-0.84
6.	Affin Islamic Bank	0.37	0.47	0.67	0.53	0.58	0.66	0.78	0.51	0.49	0.26
7.	Alliance Islamic Bank	2.16	0.97	1.13	0.82	0.76	0.72	0.55	0.78	0.82	0.99
8.	AmIslamic Bank	1.66	0.85	1.03	0.89	0.72	0.67	0.60	0.71	0.63	0.78
9.	CIMB Islamic Bank	0.9	0.88	0.86	0.71	0.79	0.74	0.90	0.86	0.90	0.76
10.	Public Islamic Bank	1.64	1.68	1.4	1.12	0.98	0.81	0.83	0.76	0.79	0.75
11.	Hong Leong Islamic Bank	0.9	0.62	0.51	1.08	1.07	0.88	0.82	0.84	0.96	1.01
12.	Maybank Islamic	1.04	1.1	1.09	0.99	0.86	0.80	0.79	0.92	0.94	1.08
13.	RHB Islamic Bank	0.56	0.56	0.64	0.61	0.72	0.64	0.69	0.69	0.73	0.83
14.	HSBC Amanah Malaysia	0.76	0.98	1.12	1.06	0.92	0.68	0.48	0.51	0.85	0.91
15.	OCBC Al-Amin Bank	0.52	0.44	0.69	1.25	0.58	0.93	1	1.23	0.83	0.99
16.	Standard Chartered Saadiq	1.05	0.91	0.73	0.63	0.11	0.13	0.32	0.27	0.54	0.61

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APPENDIX 2

ROE of Islamic Banks in Malaysia

No.	Banks	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1.	Bank Islam Malaysia	14.04	13.5	14.46	15	14.45	13.08	12.41	12.10	11.73	11.40
2.	Bank Muamalat Malaysia	6.25	10.06	6.10	11.19	9.15	4.95	6.95	7.28	8.23	7.93
3.	MBSB Bank	-9.81	0.05	-1.51	1.61	3.08	0.11	0.74	-0.74	10.40	8.93
4.	Al-Rajhi Banking & Investment Corporation	3.26	0.55	1.94	0.43	0.67	4.04	1.60	1.47	0.93	1.62
5.	Kuwait Finance House	-4.64	-3.55	4.05	6.28	5.61	-4.50	1.25	0.31	-1.68	-2.18
6.	Affin Islamic Bank	6.24	10.38	13.03	8.07	9.00	10.19	10.87	6.26	6.31	3.54
7.	Alliance Islamic Bank	22.54	12.58	14.29	9.57	8.97	9.48	7.26	9.23	9.69	12.65
8.	AmIslamic Bank	19.99	11.41	14.42	13.34	10.52	10.00	9.24	9.24	7.63	9
9.	CIMB Islamic Bank	30.67	20.92	19.47	15.03	13.98	12.69	14.81	15.12	17.02	13.72
10.	Public Islamic Bank	23.7	22.74	18.62	14.83	13.55	12.38	12.12	10.55	10.89	10.35
11.	Hong Leong Islamic Bank	10.79	8.04	9.62	18.04	16.06	12.55	11.42	11.62	13.16	13.77
12.	Maybank Islamic	14.16	19.1	20.06	20.18	16.44	15.67	15.49	18.92	20.63	23.51
13.	RHB Islamic Bank	7.18	8.77	10.35	8.69	10.51	10.72	12.04	11.76	11.45	13.65
14.	HSBC Amanah Malaysia	5.84	9.58	13.57	13.04	11.33	8.81	5.46	5.51	9.44	9.91
15.	OCBC Al-Amin Bank	9.43	6.92	11.8	20.16	9.99	15.36	14.11	15.54	9.15	10.58
16.	Standard Chartered Saadiq	12.83	9.47	9.91	8.76	1.83	2.52	5.44	3.79	6.60	6.70

APPENDIX 3

Preliminary Diagnostic Test (continued)

Correlation Test

Correlations

		SCF	ZKT	ADV	HF	NPF	OE	SIZE	LEV	SC
SCF	Pearson Correlation	1	-.238**	-.177*	.201*	-.392**	-.312**	.352**	.410**	.056
	Sig. (2-tailed)		.003	.030	.013	.000	.000	.000	.000	.493
	N	151	151	151	151	151	151	151	151	151
ZKT	Pearson Correlation	-.238**	1	.213**	.291**	-.080	-.062	.393**	.228**	.193*
	Sig. (2-tailed)	.003		.009	.000	.330	.452	.000	.005	.018
	N	151	151	151	151	151	151	151	151	151
ADV	Pearson Correlation	-.177*	.213**	1	.188*	-.088	-.007	.074	.142	.127
	Sig. (2-tailed)	.030	.009		.021	.281	.934	.365	.081	.121
	N	151	151	151	151	151	151	151	151	151
HF	Pearson Correlation	.201*	.291**	.188*	1	-.476**	-.553**	.552**	.526**	.516**
	Sig. (2-tailed)	.013	.000	.021		.000	.000	.000	.000	.000
	N	151	151	151	151	151	151	151	151	151
NPF	Pearson Correlation	-.392**	-.080	-.088	-.476**	1	.444**	-.367**	-.680**	-.280**
	Sig. (2-tailed)	.000	.330	.281	.000		.000	.000	.000	.001
	N	151	151	151	151	151	151	151	151	151
OE	Pearson Correlation	-.312**	-.062	-.007	-.553**	.444**	1	-.594**	-.583**	-.234**
	Sig. (2-tailed)	.000	.452	.934	.000	.000		.000	.000	.004
	N	151	151	151	151	151	151	151	151	151
SIZE	Pearson Correlation	.352**	.393**	.074	.552**	-.367**	-.594**	1	.622**	.402**
	Sig. (2-tailed)	.000	.000	.365	.000	.000	.000		.000	.000
	N	151	151	151	151	151	151	151	151	151
LEV	Pearson Correlation	.410**	.228**	.142	.526**	-.680**	-.583**	.622**	1	.279**
	Sig. (2-tailed)	.000	.005	.081	.000	.000	.000	.000		.001
	N	151	151	151	151	151	151	151	151	151
SC	Pearson Correlation	.056	.193*	.127	.516**	-.280**	-.234**	.402**	.279**	1
	Sig. (2-tailed)	.493	.018	.121	.000	.001	.004	.000	.001	
	N	151	151	151	151	151	151	151	151	151

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

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APPENDIX 3

Preliminary Diagnostic Test (continued)

Variance Inflation Factors and Tolerance Tests

```
. vif
```

Variable	VIF	1/VIF
LEV	2.90	0.344824
SIZE	2.76	0.362390
HF	2.20	0.455201
OE	2.13	0.469979
NFL	2.11	0.473454
SCF	1.68	0.595508
ZKT	1.63	0.613883
SCIndex	1.48	0.675929
ADV	1.14	0.877979
Mean VIF	2.00	

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APPENDIX 4

Diagnostic Tests for Panel Regression

Homoscedasticity Tests (ROA Model)

```
. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (16)  =    1562.95
Prob>chi2 =      0.0000
```

Homoscedasticity Tests (ROE Model)

```
. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (16)  =     414.63
Prob>chi2 =      0.0000
```

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Auto Correlation Test (ROA Model)

```
. xtserial ROA SCF ZKT ADV HF NPF OE LEV  SIZE

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
    F(  1,      15) =     12.369
           Prob > F =      0.0031
```

Auto Correlation Test (ROE Model)

```
.  xtserial ROE SCF ZKT ADV HF NPF OE LEV  SIZE

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
    F(  1,      15) =      5.700
           Prob > F =      0.0306
```

APPENDIX 4

Diagnostic Tests for Panel Regression (continued)

Cross-Section Dependence Test (ROA Model)

```
Pesaran's test of cross sectional independence =     1.059, Pr = 0.2895

Average absolute value of the off-diagonal elements =     0.351
```

Cross-Section Dependence Test (ROE Model)

```
Pesaran's test of cross sectional independence =     0.080, Pr = 0.9359

Average absolute value of the off-diagonal elements =     0.324
```

Lagrangian Multiplier Test (ROA Model)

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        ROA[ID,t] = Xb + u[ID] + e[ID,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                 --------+------------------------------
                     ROA |   .2029574        .450508
                       e |   .0742938       .2725688
                       u |   .0314345       .1772978

        Test:   Var(u) = 0
                                 chibar2(01) =    11.06
                              Prob > chibar2 =   0.0004
```

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APPENDIX 4

Diagnostic Tests for Panel Regression (continued)

Lagrangian Multiplier Test (ROE Model)

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        ROE[ID,t] = Xb + u[ID] + e[ID,t]

        Estimated results:
                         |       Var     SD = sqrt(Var)
                 --------+------------------------------
                     ROE |  38.27108       6.186362
                       e |   6.80906       2.609418
                       u |  2.795906       1.672096

        Test: Var(u) = 0
                                chibar2(01) =    24.64
                             Prob > chibar2 =   0.0000
```

Hausman Test (ROA Model)

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	8.673784	8	0.3706

** WARNING: estimated period random effects variance is zero.

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SCF	0.006323	0.005278	0.000001	0.2670
ZKT	0.733650	0.751350	0.001484	0.6459
ADV	0.016516	0.016745	0.000005	0.9173
HF	0.002038	0.002394	0.000000	0.1795
NPF	-0.028385	-0.027777	0.000054	0.9341
OE	-0.014777	-0.014842	0.000000	0.9125
SIZE	-0.024871	-0.037238	0.000467	0.5673
LEV	0.001835	0.004571	0.000018	0.5197

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APPENDIX 4

Diagnostic Tests for Panel Regression (continued)

Hausman Test (ROE Model)

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	21.805495	8	0.0053

** WARNING: estimated period random effects variance is zero.

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SCF	0.000867	-0.016068	0.000097	0.0860
ZKT	3.638271	4.360081	0.162913	0.0737
ADV	-0.018727	0.051758	0.000535	0.0023
HF	-0.010165	-0.000652	0.000008	0.0006
NPF	-0.368814	-0.116802	0.005925	0.0011
OE	-0.173093	-0.192463	0.000038	0.0017
SIZE	1.710255	0.885965	0.051300	0.0003
LEV	0.283754	0.446447	0.001981	0.0003

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APPENDIX 5

Diagnostic Tests for Hierarchical Panel Regression

Homoscedasticity Tests (ROA Model)

```
. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (16)  =    1379.58
Prob>chi2 =      0.0000
```

Homoscedasticity Tests (ROE Model)

```
. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (16)  =     524.20
Prob>chi2 =      0.0000
```

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Auto Correlation Test (ROA Model)

```
. xtserial ROA SCF ZKT ADV HF NPF OE SC LEV  SIZE

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
    F(  1,      15) =     12.207
           Prob > F =      0.0033
```

Auto Correlation Test (ROE Model)

```
. xtserial ROE SCF ZKT ADV HF NPF OE SC LEV  SIZE

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
    F(  1,      15) =      5.724
           Prob > F =      0.0303
```

APPENDIX 5

Diagnostic Tests for Hierarchical Panel Regression (continued)

Cross-Section Dependence Test (ROA Model)

```
Pesaran's test of cross sectional independence =     1.112, Pr = 0.2662

Average absolute value of the off-diagonal elements =     0.355
```

Cross-Section Dependence Test (ROE Model)

```
Pesaran's test of cross sectional independence =     0.095, Pr = 0.9245

Average absolute value of the off-diagonal elements =     0.330
```

Lagrangian Multiplier Test (ROA Model)

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        ROA[ID,t] = Xb + u[ID] + e[ID,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                 --------+------------------------------
                     ROA |   .2029574        .450508
                       e |   .0742438       .2724772
                       u |   .0304303       .1744429

        Test:   Var(u) = 0
                                chibar2(01) =    10.45
                             Prob > chibar2 =   0.0006
```

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APPENDIX 5

Diagnostic Tests for Hierarchical Panel Regression Analysis (continued)

Lagrangian Multiplier Test (ROE Model)

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        ROE[ID,t] = Xb + u[ID] + e[ID,t]

        Estimated results:
                         |       Var     SD = sqrt(Var)
                 --------+------------------------------
                     ROE |  38.27108       6.186362
                       e |  6.831191       2.613655
                       u |   3.32667       1.823916

        Test: Var(u) = 0
                                chibar2(01) =    23.80
                             Prob > chibar2 =   0.0000
```

Hausman Test (ROA Model)

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	8.821355	9	0.4539

** WARNING: estimated period random effects variance is zero.

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SCF	0.006082	0.005124	0.000001	0.2988
ZKT	0.723797	0.744815	0.001389	0.5728
ADV	0.016753	0.016784	0.000005	0.9893
HF	0.002436	0.002601	0.000000	0.7157
NPF	-0.028545	-0.028353	0.000051	0.9785
OE	-0.014678	-0.014743	0.000000	0.9023
SIZE	-0.021023	-0.034163	0.000421	0.5219
SC	-0.000849	-0.000473	0.000000	0.4839
LEV	0.001628	0.004363	0.000018	0.5171

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APPENDIX 5

Diagnostic Tests for Hierarchical Panel Regression Analysis (continued)

Hausman Test (ROE Model)

Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	21.860981	9	0.0093

** WARNING: estimated period random effects variance is zero.

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SCF	0.000544	-0.018147	0.000093	0.0532
ZKT	3.625069	4.271912	0.152757	0.0979
ADV	-0.018409	0.052273	0.000562	0.0029
HF	-0.009632	0.002138	0.000023	0.0134
NPF	-0.369028	-0.124572	0.005567	0.0011
OE	-0.172961	-0.191130	0.000031	0.0010
SIZE	1.715412	0.927453	0.046286	0.0002
SC	-0.001137	-0.006381	0.000032	0.3516
LEV	0.283475	0.443650	0.001961	0.0003

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APPENDIX 6

Panel Regression Analysis

ROA Model

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 10/06/22 Time: 11:08
Sample: 2010 2019
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 151
Swamy and Arora estimator of component variances
White cross-section standard errors & covariance (no d.f. correction)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCF	0.006443	0.003367	1.913408	0.0577
ZKT	0.846358	0.146488	5.777677	0.0000
ADV	0.015025	0.008371	1.794764	0.0748
HF	0.003246	0.003252	0.998161	0.3199
NPF	-0.029866	0.028317	-1.054690	0.2934
OE	-0.016803	0.002597	-6.469364	0.0000
SIZE	-0.055377	0.047709	-1.160742	0.2477
LEV	-0.011456	0.022271	-0.514403	0.6078
C	2.442182	1.629662	1.498582	0.1362

Effects Specification

	S.D.	Rho
Cross-section random	0.177200	0.2971
Idiosyncratic random	0.272574	0.7029

Weighted Statistics

R-squared	0.430263	Mean dependent var	0.305007
Adjusted R-squared	0.398165	S.D. dependent var	0.345022
S.E. of regression	0.268531	Sum squared resid	10.23947
F-statistic	13.40474	Durbin-Watson stat	1.641914
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.572960	Mean dependent var	0.686026
Sum squared resid	13.00065	Durbin-Watson stat	1.293191

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APPENDIX 6

Panel Regression Analysis (continued)

ROE Model

Dependent Variable: ROE
Method: Panel EGLS (Cross-section weights)
Date: 10/06/22 Time: 11:13
Sample: 2010 2019
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 151
Linear estimation after one-step weighting matrix
White period standard errors & covariance (no d.f. correction)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCF	-0.030145	0.047766	-0.631110	0.5291
ZKT	8.450505	2.290130	3.689967	0.0003
ADV	0.317130	0.162338	1.953512	0.0530
HF	0.031496	0.031888	0.987703	0.3252
NPF	-0.442318	0.180640	-2.448608	0.0157
OE	-0.215698	0.025857	-8.341803	0.0000
SIZE	-1.394723	0.882580	-1.580278	0.1165
LEV	0.202622	0.240579	0.842226	0.4012
C	16.12008	18.87270	0.854148	0.3946

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.860891	Mean dependent var	11.72491
Adjusted R-squared	0.835698	S.D. dependent var	7.555524
S.E. of regression	2.548655	Sum squared resid	824.9466
F-statistic	34.17194	Durbin-Watson stat	1.452565
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.844409	Mean dependent var	9.825894
Sum squared resid	893.1942	Durbin-Watson stat	1.525595

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APPENDIX 7

Hierarchical Panel Regression Analysis

ROA Model

Model 1

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 10/06/22 Time: 11:08
Sample: 2010 2019
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 151
Swamy and Arora estimator of component variances
White cross-section standard errors & covariance (no d.f. correction)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCF	0.006443	0.003367	1.913408	0.0577
ZKT	0.846358	0.146488	5.777677	0.0000
ADV	0.015025	0.008371	1.794764	0.0748
HF	0.003246	0.003252	0.998161	0.3199
NPF	-0.029866	0.028317	-1.054690	0.2934
OE	-0.016803	0.002597	-6.469364	0.0000
SIZE	-0.055377	0.047709	-1.160742	0.2477
LEV	-0.011456	0.022271	-0.514403	0.6078
C	2.442182	1.629662	1.498582	0.1362

Effects Specification

	S.D.	Rho
Cross-section random	0.177200	0.2971
Idiosyncratic random	0.272574	0.7029

Weighted Statistics

R-squared	0.430263	Mean dependent var	0.305007
Adjusted R-squared	0.398165	S.D. dependent var	0.345022
S.E. of regression	0.268531	Sum squared resid	10.23947
F-statistic	13.40474	Durbin-Watson stat	1.641914
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.572960	Mean dependent var	0.686026
Sum squared resid	13.00065	Durbin-Watson stat	1.293191

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APPENDIX 7

Hierarchical Panel Regression Analysis (continued)

ROA Model

Model 2

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 10/06/22 Time: 11:15
Sample: 2010 2019
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 151
Swamy and Arora estimator of component variances
White cross-section standard errors & covariance (no d.f. correction)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCF	0.007104	0.003904	1.819670	0.0709
ZKT	0.853154	0.141557	6.026918	0.0000
ADV	0.014665	0.007768	1.887696	0.0611
HF	0.003047	0.003257	0.935327	0.3512
NPF	-0.027912	0.029001	-0.962451	0.3375
OE	-0.017010	0.002605	-6.530962	0.0000
SIZE	-0.064562	0.046666	-1.383480	0.1687
LEV	-0.011040	0.021673	-0.509387	0.6113
SC	0.000941	0.001288	0.730611	0.4662
C	2.393760	1.589940	1.505566	0.1344

Effects Specification

	S.D.	Rho
Cross-section random	0.175257	0.2926
Idiosyncratic random	0.272482	0.7074

Weighted Statistics

R-squared	0.432788	Mean dependent var	0.307626
Adjusted R-squared	0.396583	S.D. dependent var	0.345531
S.E. of regression	0.269289	Sum squared resid	10.22482
F-statistic	11.95380	Durbin-Watson stat	1.637601
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.570113	Mean dependent var	0.686026
Sum squared resid	13.08731	Durbin-Watson stat	1.279421

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APPENDIX 7

Hierarchical Panel Regression Analysis (continued)

ROA Model

Model 3

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 10/06/22 Time: 11:22
Sample: 2010 2019
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 151
Swamy and Arora estimator of component variances
White cross-section standard errors & covariance (no d.f. correction)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCF	0.007323	0.006519	1.123383	0.2633
ZKT	1.193728	0.454041	2.629118	0.0096
ADV	0.073746	0.056904	1.295968	0.1972
HF	-0.014887	0.005384	-2.765047	0.0065
NPF	-0.149380	0.087957	-1.698326	0.0917
OE	-0.044840	0.012345	-3.632222	0.0004
SIZE	-0.014284	0.039778	-0.359093	0.7201
LEV	0.001006	0.013290	0.075706	0.9398
SC	-0.031837	0.015987	-1.991396	0.0485
SC*SCF	-3.55E-05	0.000121	-0.294011	0.7692
SC*ZKT	-0.006857	0.005017	-1.366606	0.1740
SC*ADV	-0.000770	0.000752	-1.022837	0.3082
SC*HF	0.000234	6.22E-05	3.757174	0.0003
SC*NPF	0.001876	0.001543	1.215288	0.2264
SC*OE	0.000412	0.000163	2.524176	0.0128
C	3.287801	1.648995	1.993821	0.0482

Effects Specification	S.D.	Rho
Cross-section random	3.95E-07	0.0000
Idiosyncratic random	0.258969	1.0000

Weighted Statistics

R-squared	0.646945	Mean dependent var	0.686026
Adjusted R-squared	0.607716	S.D. dependent var	0.450508
S.E. of regression	0.282165	Sum squared resid	10.74828
F-statistic	16.49175	Durbin-Watson stat	1.455490
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.646945	Mean dependent var	0.686026
Sum squared resid	10.74828	Durbin-Watson stat	1.455490

APPENDIX 7

Hierarchical Panel Regression Analysis (continued)

ROE Model

Model 1

Dependent Variable: ROE
Method: Panel EGLS (Cross-section weights)
Date: 10/06/22 Time: 11:13
Sample: 2010 2019
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 151
Linear estimation after one-step weighting matrix
White period standard errors & covariance (no d.f. correction)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCF	-0.030145	0.047766	-0.631110	0.5291
ZKT	8.450505	2.290130	3.689967	0.0003
ADV	0.317130	0.162338	1.953512	0.0530
HF	0.031496	0.031888	0.987703	0.3252
NPF	-0.442318	0.180640	-2.448608	0.0157
OE	-0.215698	0.025857	-8.341803	0.0000
SIZE	-1.394723	0.882580	-1.580278	0.1165
LEV	0.202622	0.240579	0.842226	0.4012
C	16.12008	18.87270	0.854148	0.3946

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.860891	Mean dependent var	11.72491
Adjusted R-squared	0.835698	S.D. dependent var	7.555524
S.E. of regression	2.548655	Sum squared resid	824.9466
F-statistic	34.17194	Durbin-Watson stat	1.452565
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.844409	Mean dependent var	9.825894
Sum squared resid	893.1942	Durbin-Watson stat	1.525595

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APPENDIX 7

Hierarchical Panel Regression Analysis (continued)

ROE Model

Model 2

Dependent Variable: ROE
Method: Panel EGLS (Cross-section weights)
Date: 10/06/22 Time: 11:17
Sample: 2010 2019
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 151
Linear estimation after one-step weighting matrix
White period standard errors & covariance (no d.f. correction)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCF	-0.026960	0.050283	-0.536156	0.5928
ZKT	8.188272	2.337430	3.503109	0.0006
ADV	0.312590	0.162217	1.926978	0.0562
HF	0.029387	0.032741	0.897572	0.3711
NPF	-0.432426	0.192525	-2.246082	0.0264
OE	-0.216037	0.025080	-8.613823	0.0000
SIZE	-1.417779	0.848145	-1.671623	0.0971
LEV	0.213620	0.246874	0.865300	0.3885
SC	0.004508	0.011056	0.407779	0.6841
C	14.91983	19.84283	0.751900	0.4535

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.863965	Mean dependent var	11.74880
Adjusted R-squared	0.838053	S.D. dependent var	7.814403
S.E. of regression	2.549184	Sum squared resid	818.7905
F-statistic	33.34299	Durbin-Watson stat	1.465697
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.844803	Mean dependent var	9.825894
Sum squared resid	890.9341	Durbin-Watson stat	1.525697

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APPENDIX 7

Hierarchical Panel Regression Analysis (continued)

ROE Model

Model 3

Dependent Variable: ROE
Method: Panel EGLS (Cross-section weights)
Date: 10/06/22 Time: 11:24
Sample: 2010 2019
Periods included: 10
Cross-sections included: 16
Total panel (unbalanced) observations: 151
Linear estimation after one-step weighting matrix
White period standard errors & covariance (no d.f. correction)
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCF	-0.201165	0.129477	-1.553672	0.1229
ZKT	3.385512	6.225226	0.543838	0.5876
ADV	1.028451	0.384339	2.675897	0.0085
HF	0.031538	0.062938	0.501095	0.6172
NPF	0.112460	0.531139	0.211734	0.8327
OE	-0.420299	0.053171	-7.904610	0.0000
SIZE	-1.516902	0.828484	-1.830938	0.0696
LEV	0.234438	0.243221	0.963887	0.3370
SC	-0.304711	0.165082	-1.845816	0.0674
SC*SCF	0.002811	0.001875	1.499103	0.1365
SC*ZKT	0.117656	0.090716	1.296975	0.1971
SC*ADV	-0.008253	0.003385	-2.437965	0.0162
SC*HF	-6.54E-05	0.000713	-0.091667	0.9271
SC*NPF	-0.007454	0.008870	-0.840320	0.4024
SC*OE	0.002832	0.000627	4.519076	0.0000
C	33.74290	17.83278	1.892184	0.0609

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.870665	Mean dependent var	10.75384
Adjusted R-squared	0.838332	S.D. dependent var	6.153076
S.E. of regression	2.456413	Sum squared resid	724.0756
F-statistic	26.92751	Durbin-Watson stat	1.501286
Prob(F-statistic)	0.000000		

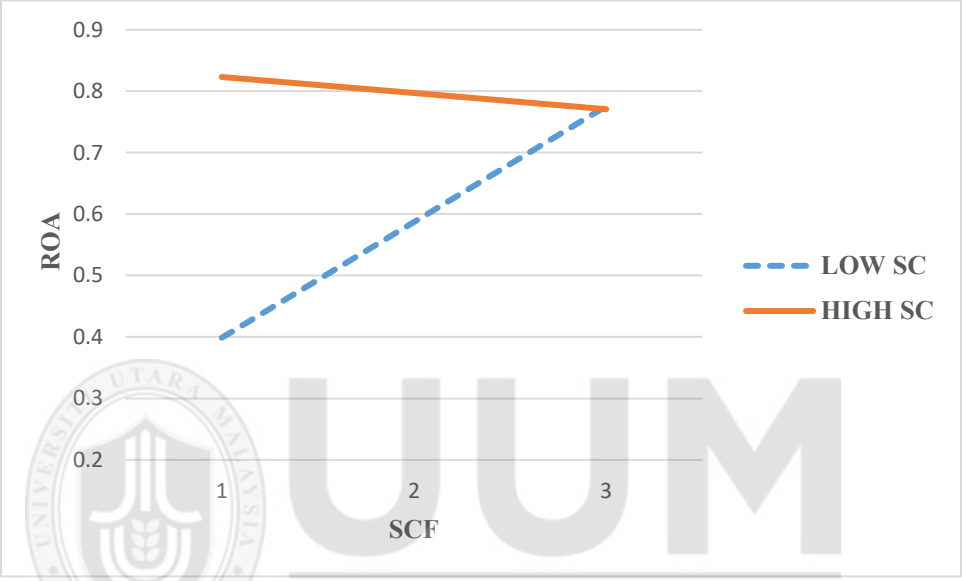
Unweighted Statistics

R-squared	0.857309	Mean dependent var	9.825894
Sum squared resid	819.1382	Durbin-Watson stat	1.579121

APPENDIX 8

Graphical Presentation of Moderation Effect

ROA Model



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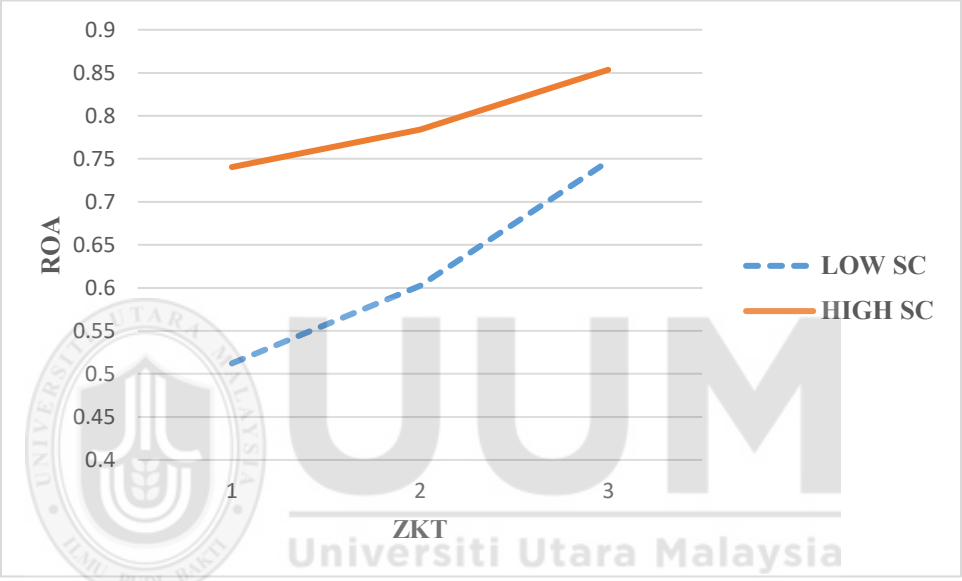
APPENDIX 8

Graphical Presentation of Moderation Effect (continued)

ROA Model



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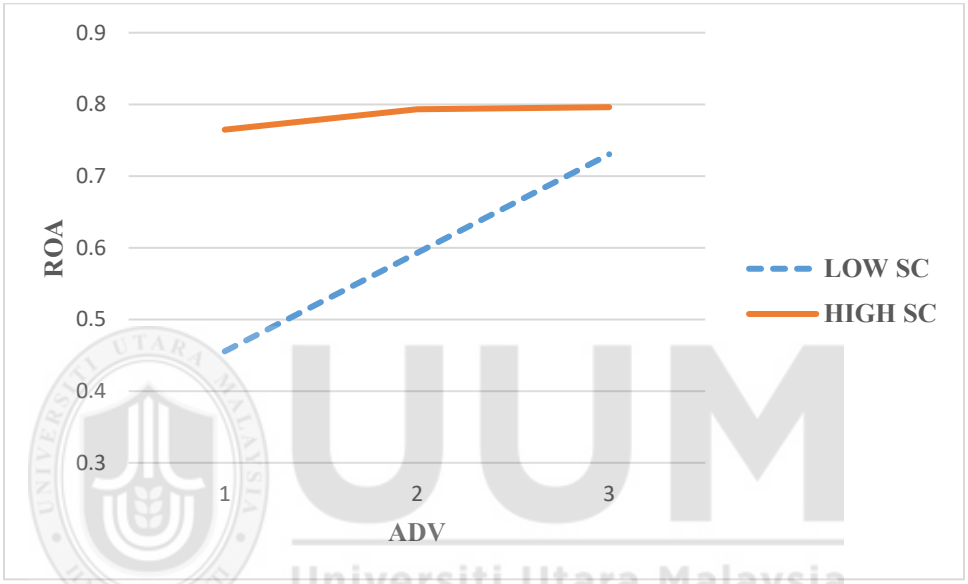
APPENDIX 8

Graphical Presentation of Moderation Effect (continued)

ROA Model



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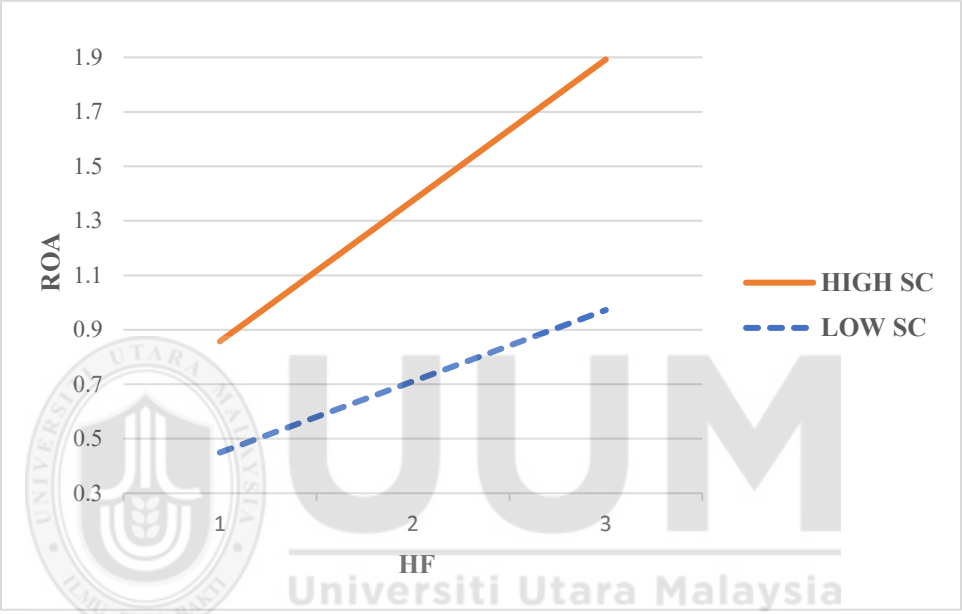
APPENDIX 8

Graphical Presentation of Moderation Effect (continued)

ROA Model



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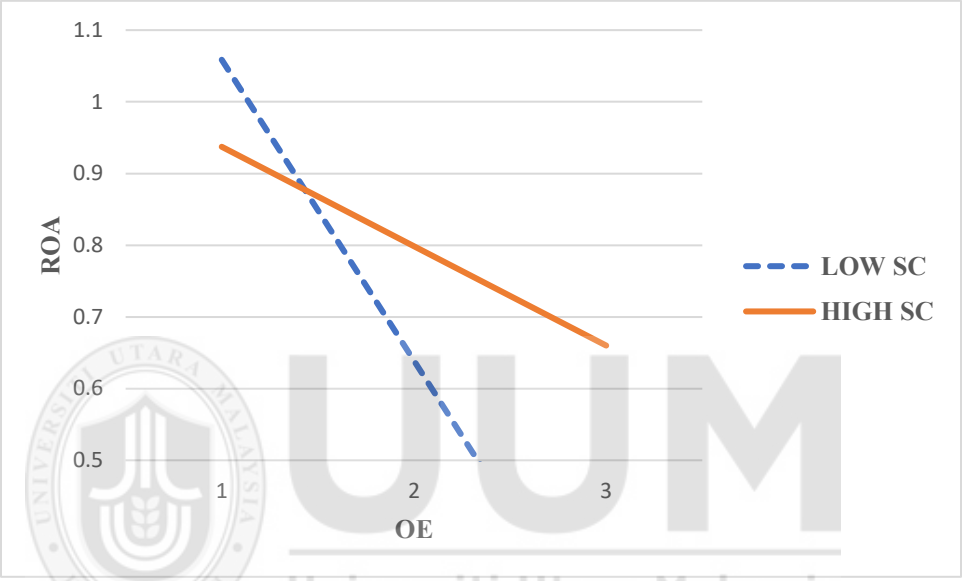
APPENDIX 8

Graphical Presentation of Moderation Effect (continued)

ROA Model



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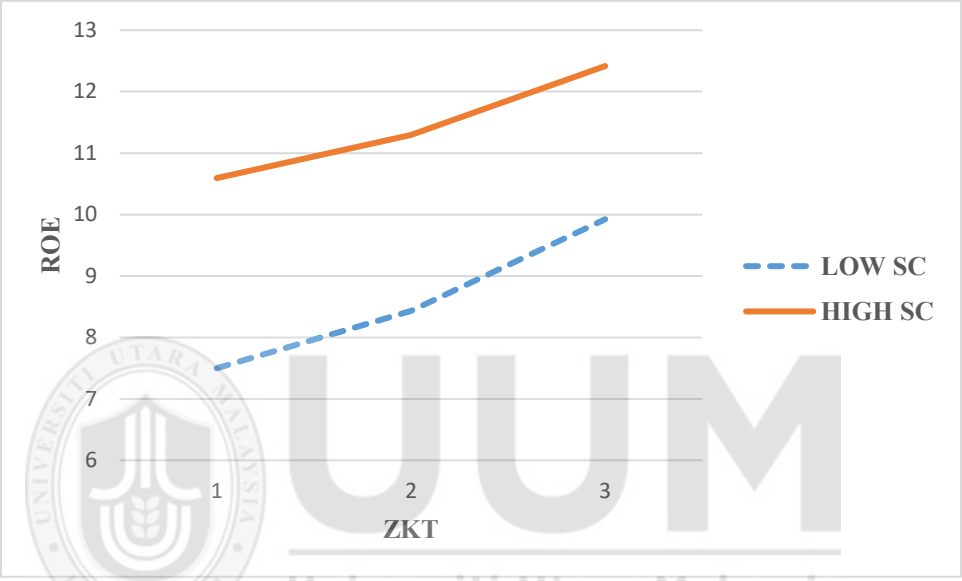
APPENDIX 8

Graphical Presentation of Moderation Effect (continued)

ROE Model



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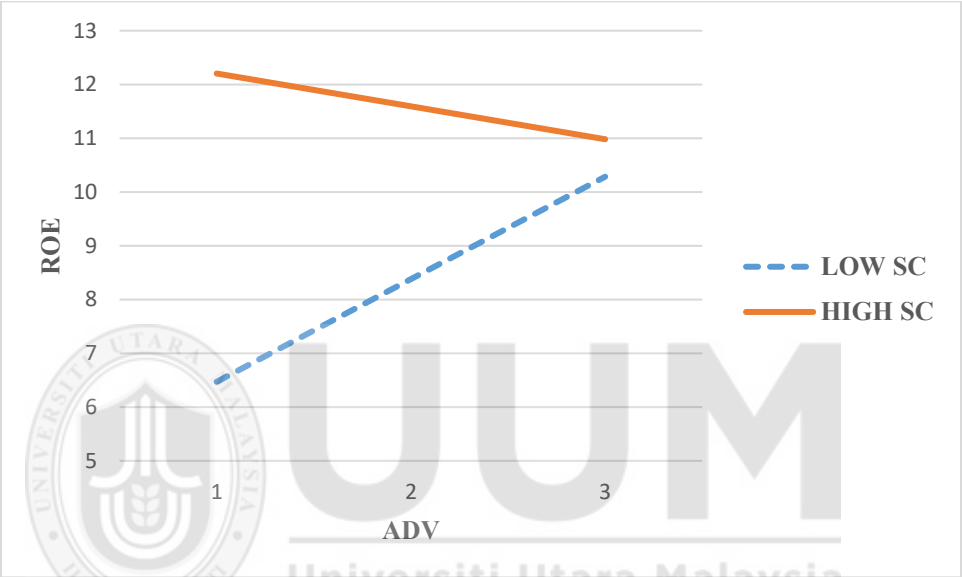
APPENDIX 8

Graphical Presentation of Moderation Effect (continued)

ROE Model



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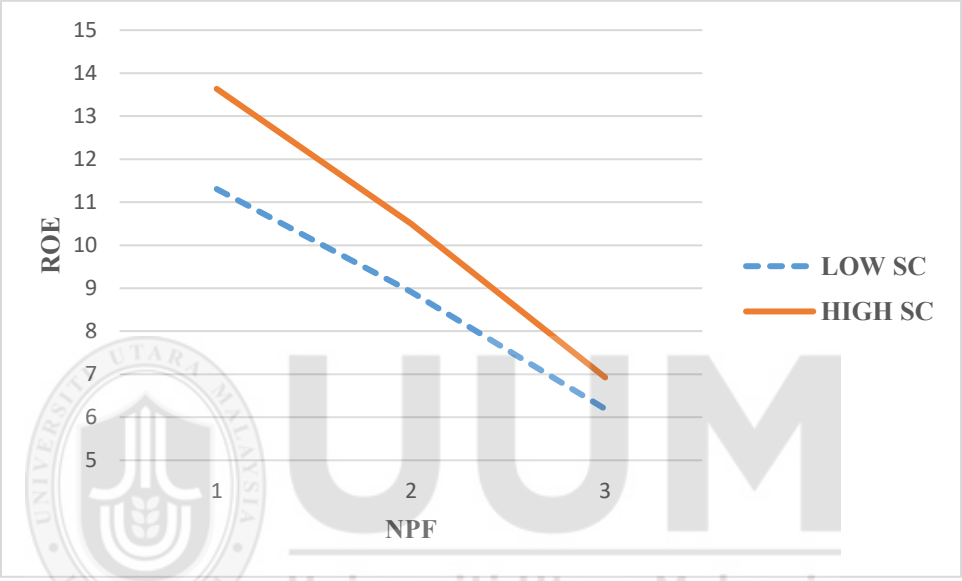
APPENDIX 8

Graphical Presentation of Moderation Effect (continued)

ROE Model



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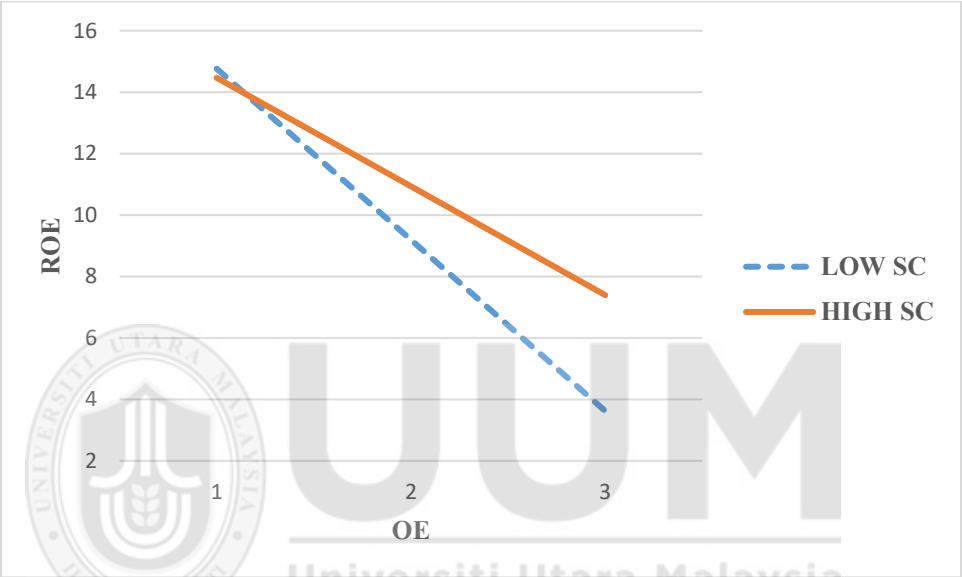
APPENDIX 8

Graphical Presentation of Moderation Effect (continued)

ROE Model



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