

ISLAMIC FINANCE-GROWTH NEXUS: EMPIRICAL EVIDENCE FROM MALAYSIA

BY

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ABSTRACT

The expanding Islamic financial and banking system, together with the remarkable economic development has drawn the attention to explore the impact of Islamic financial and banking system on economic growth, especially in Malaysia as it has been retaining its position as the leader in Islamic finance as well as maintaining its position to be in the top for the Global Islamic Economy Indicator (GIEI) Score for the 9th consecutive years. Although many challenges have been faced by the Islamic financial sector successfully as time goes by, there are still some issues that need to be improved especially in terms of the legal, supervisory, institutional framework, and the directions for future research by focusing on statistical analysis and economic significance, and its primary objective to serve the society. Therefore, this study intends to examine the link between Islamic financial sector, which includes Islamic Banking (IB), Islamic capital market (ICM), and Takaful sectors, and real economic growth in Malaysia with three specific research objectives. First, this study aims to investigate the Islamic finance (IF)-growth nexus in Malaysia both in short and long-run. Second, this study proposes to analyze whether the introduction of Islamic Financial Services Act (IFSA) 2013 has a significant effect on each of the three sectors of IF (IB, ICM and Takaful) in the short-run and long-run. This study adopts Autoregressive Distributed Lag (ARDL) method of cointegration for IB and ICM sectors, and Pearson Correlation method for Takaful sector, using the secondary data that are extracted from the official reports. Information from interview session is also shown to support the quantitative analysis. Third, this study seeks to observe whether IF is fulfilling the goals of Islamic economics by adopting the method of Between-Study Analysis and Interview. The findings show that IB sector is linked positively to the real economic growth both in the short and long run, while for ICM sector, it is found that the link between *Shari'ah*-compliant Securities (SCS) and the real economic growth is negative, while the link between *Shari'ah*-compliant Market Capitalization (SCMC) and the real economic growth is positive in both short and long run, and the third sector, which is Takaful sector, is found to be positively linked to the real economic growth significantly. On the other hand, it is also shown that IFSA 2013 does assist the IB sector to improve the real economic growth in Malaysia in the long run. Besides, there is also evidence that IFSA 2013 could support inclusive growth in the ICM sector for SCS both in the short run and long run. Meanwhile, for Takaful sector, the positive effect of IFSA is found to be insignificant due to the data limitation. Last but not least, the qualitative results of the study via interviewing 7 experts in the industry have shown that the Islamic financial system has progressed really well to satisfy the *Maqasid Shari'ah*, especially during COVID-19. However, there is a need for additional metrics to measure economic growth to reflect a fair distribution amongst the society. These findings signify the significance of a refined and conducive regulatory and legal framework in supporting the Malaysian IF industry's transformation to become a global leader in the field. For the vital contribution of IFSA 2013 to the Malaysian Islamic financial system, it is recommended for policymakers to focus on implementing policies that can further develop the IF's abilities to enhance the economic growth.

خلاصة البحث

جذب النظام المالي والمصرفي الإسلامي المتوسع والتطور الاقتصادي الملحوظ الانتباه إلى استكشاف تأثير هذا النظام على النمو الاقتصادي في العالم عامة وفي ماليزيا خاصة، حيث احتفظت ماليزيا بمكانتها كدولة رائدة في التمويل الإسلامي بجانب الحفاظ على مكانتها لتكون في صدارة مؤشر الاقتصاد الإسلامي العالمي للسنة التاسعة على التوالي. على الرغم من أن القطاع المالي الإسلامي واجه العديد من التحديات بنجاح، إلا أنه لا تزال هناك بعض القضايا التي تحتاج إلى تحسين، خاصة من حيث الإطار القانوني والرقابي والمؤسسي، إضافة إلى توجهات البحث المستقبلي من خلال التركيز على التحليل الإحصائي وأهميته الاقتصادية متضمننا هدفه الأساسي في خدمة المجتمع. لذلك، فإن هذه الدراسة تهدف إلى فحص العلاقة بين القطاع المالي الإسلامي الذي يشمل الخدمات المصرفية الإسلامية (IB)، على جانب سوق رأس المال الإسلامي (ICM) وقطاعات التكافل والنمو الاقتصادي الحقيقي في ماليزيا مع ثلاثة أهداف بحثية محددة. أولاً، تهدف هذه الدراسة إلى التحقيق في العلاقة بين التمويل الإسلامي (IF) والنمو في ماليزيا على المدى القريب والبعيد. ثانياً، تقترح هذه الدراسة تحليل ما إذا كان إدخال قانون الخدمات المالية الإسلامية 2013 (IFSA) له تأثير كبير على كل من القطاعات الثلاثة (IB و ICM و Takaful) على المدى القريب والبعيد. تتبنى هذه الدراسة طريقة الانحدار الذاتي (ARDL) للتكامل المشترك لقطاعي IB و ICM، وطريقة Correlation Pearson لقطاع التكافل من خلال استخدام البيانات الثانوية المستخرجة من التقارير الرسمية. تظهر المعلومات من جلسة المقابلة أيضاً لدعم التحليل الكمي. ثالثاً، تسعى هذه الدراسة إلى ملاحظة ما إذا كانت IF تحقق أهداف الاقتصاد الإسلامي من خلال اعتماد أسلوب التحليل بين الدراسة والمقابلة. تظهر النتائج أن قطاع IB مرتبط بشكل إيجابي بالنمو الاقتصادي الحقيقي على المدى القريب والبعيد، بينما بالنسبة لقطاع ICM، وجد أن الرابط بين الأوراق المالية المتوافقة مع الشريعة الإسلامية (SCS) والنمو الاقتصادي الحقيقي هو ذو دلالة سلبية، في حين أن الارتباط بين الأسهمية السوقية المتوافقة مع الشريعة الإسلامية والنمو الاقتصادي الحقيقي له أهمية إيجابية على المدى القريب والبعيد، ووجد أن القطاع الثالث والذي هو قطاع التكافل مرتبط بشكل إيجابي بالنمو الاقتصادي الحقيقي بشكل ملحوظ. من ناحية أخرى، اتضح أن IFSA 2013 يساعد قطاعي IB و ICM على تحسين النمو الاقتصادي الحقيقي

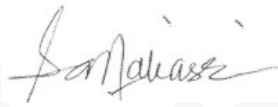
في ماليزيا من خلال قواعدها ولوائحها كمعلومات. كما أن أهمية النمو الاقتصادي الحقيقي أو ما يسمى بمؤشر الإنتاج الصناعي (IPI) تتحسن مع تنفيذ IFSA 2013، بينما بالنسبة لقطاع التكافل، وجد أن التأثير الإيجابي لـ IFSA غير مهم بسبب محدودية البيانات. من ناحية أخرى، يُظهر أيضاً أن قانون الخدمات المالية الإسلامية لعام 2013 يساعد قطاع البنوك الإسلامية على تحسين النمو الاقتصادي الحقيقي في ماليزيا على المدى الطويل. وبالإضافة إلى ذلك، هناك أيضاً دليل على أن قانون الخدمات المالية الإسلامية لعام 2013 يمكن أن يدعم النمو الشامل في قطاع السوق المالية الإسلامية للسندات الشرعية سواء في القصير أو الطويل. وفي الوقت نفسه، يُعثر على أن الأثر الإيجابي لقانون الخدمات المالية الإسلامية لعام 2013 في قطاع التكافل غير ملحوظ بسبب قيود البيانات. وأخيراً وليس آخراً، أظهرت النتائج الكيفية النوعية للدراسة من خلال مقابلة 7 خبراء في الصناعة أن النظام المالي الإسلامي قد تقدم بشكل جيد لتلبية مقاصد الشريعة، خاصة خلال جائحة كوفيد-19. أخيراً، فقد أظهرت النتائج النوعية للدراسة أن النظام المالي الإسلامي قد تقدم بشكل جيد لتلبية مقاصد الشريعة خاصة خلال فترة جائحة كورونا، ومع ذلك فإن هناك حاجة إلى تزويد بعض المقاييس الإضافية لقياس النمو الاقتصادي لتعكس التوزيع العادل بين أفراد المجتمع. تشير هذه النتائج إلى أهمية وجود إطار تنظيمي وقانوني مصقول ومساعد في دعم تحول صناعة IF الماليزية لتصبح رائدة عالمياً في هذا المجال. أما عن المساهمة الحيوية التي يقدمها IFSA 2013 النظام المالي الماليزي الإسلامي، فإنه من الأفضل أن يركز صانعو السياسات على تنفيذ السياسات التي يمكن أن تزيد من تطوير قدرات IFSA لتعزيز النمو الاقتصادي.

APPROVAL PAGE

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DECLARATION

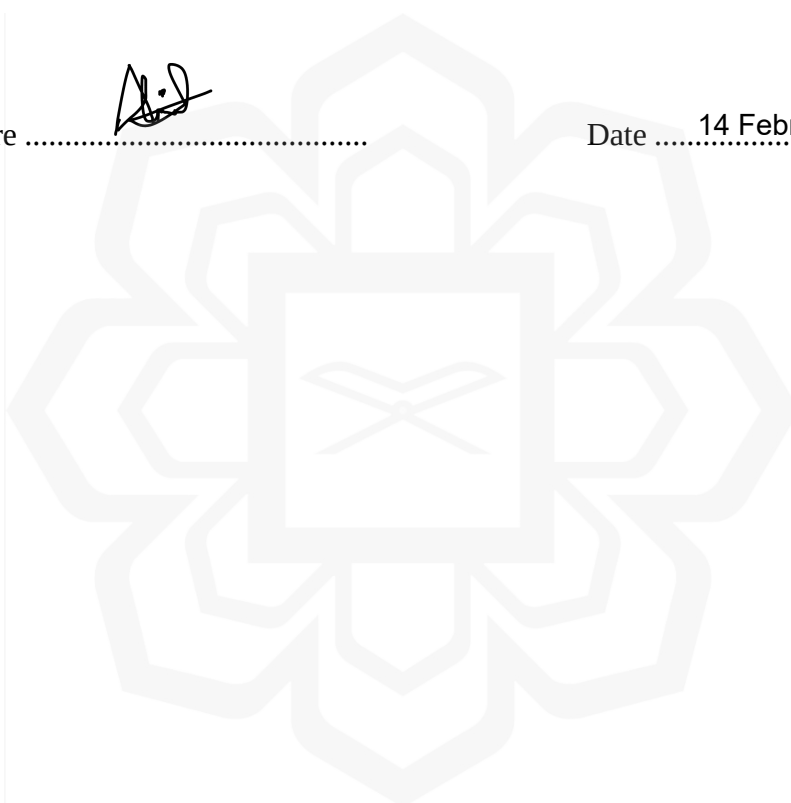
I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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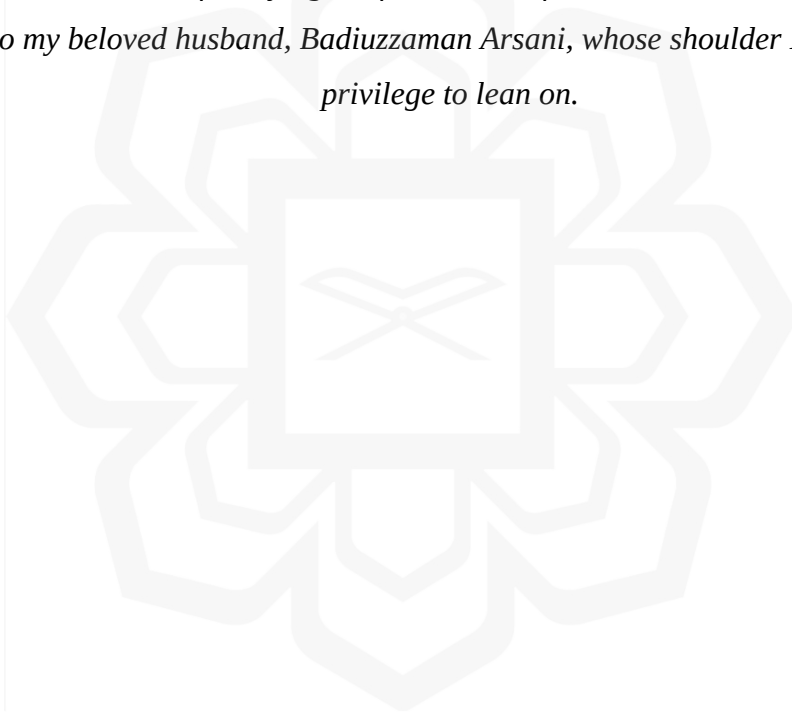


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This thesis is dedicated to my dearest parents, Kamarudin Abd Karim and Che Rahana Abd Rahaman for laying the foundation of what I turned out to be in life, and also to my beloved husband, Badiuzzaman Arsani, whose shoulder I have had the privilege to lean on.



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LIST OF SYMBOLS

$\ln$	Natural Logarithm
β_0	Constant or Intercept
μ_t	Error Terms.
R^2	Unadjusted Determination's Coefficient
α	Speed of Adjustment
H_0	Null Hypothesis
H_1	Alternative Hypothesis
r	Pearson Correlation Coefficient
n	Number of Pairs of the Variable
$\sum xy$	Sum of the Paired Variables
$\sum x$	Sum of the x Variable
$\sum y$	Sum of the y Variable
$\sum x^2$	Sum of the Squared x Variable
$\sum y^2$	Sum of the Squared y Variable
ρ	Optimal Lag Length
β_j	Coefficients of Determinations
t	Time Dimension
μ_t	Error Terms.
R^2	Unadjusted Determination's Coefficient
α	Speed of Adjustment
H_0	Null Hypothesis
H_1	Alternative Hypothesis
r	Pearson Correlation Coefficient
n	Number of Pairs of the Variable
$\sum xy$	Sum of the Paired Variables
$\sum x$	Sum of the x Variable
$\sum y$	Sum of the y Variable
$\sum x^2$	Sum of the Squared x Variable

LIST OF ABBREVIATION

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
ADF	Fisher-Augmented Dickey-Fuller
<i>AFT</i>	Total Assets of Family Takaful Funds
<i>AGT</i>	Total Assets of General Takaful Funds
AIBIM	Association of Islamic Banking Institution Malaysia
AIC	Akaike Information Criterion
ARCH	Autoregressive Conditional Heteroscedasticity
ARDL	Autoregressive Distributed Lag
ASEAN	Association of Southeast Asian Nations
BIMB	Bank Islam Malaysia Berhad
BNM	Bank Negara Malaysia
CB	Conventional Banking
CMSA	Capital Markets and Services Act
CSR	Corporate Social Responsibility
CUSUM	Cumulative Sum of Recursive Residuals
CUSUMSQ	CUSUM of Squares
DC	Developing Countries
DEA	Data Envelopment Analysis
DFIs	Development Finance Institutions
<i>DUM</i>	Dummy
ECM	Error Correction Model
ECT	Error Correction Term
ETF	Exchange Traded Fund
FDH	Free Disposal Hull
FMOLS	Fully Modified Ordinary Least Squares
FSA	Financial Services Act
FSMP	Financial Sector Masterplan
GIEI	Global Islamic Economy Indicator
GMM	Generalized Method of Moments
IA	Investment Account
IB	Islamic Banking
<i>IBA</i>	Islamic Banking Assets
<i>IBD</i>	Islamic Banking Deposits
<i>IBF</i>	Islamic Banking Financings
IBFC	International Business & Financial Centre
ICM	Islamic Capital Market
ICRIE	International Center for Research in Islamic Economics
IF	Islamic Finance

IFI	Islamic Financial Industry
IFS	Islamic Financial System
IFSA	Islamic Financial Services Act (IFSA) 2013
IFSB	Islamic Financial Services Board
IIFM	International Islamic Financial Market
IILM	International Islamic Liquidity Management Corporation
INCEIF	International Centre for Education
<i>INF</i>	Inflation
<i>IP</i>	Industrial Production Index
IPS	Im, Pesaran, and Shin
LFX	Labuan International Financial Exchange
LLC	Levin, Lin, and Chu
LOFSA	Labuan Offshore Financial Services Authority
MCO	Movement Control Order
MCO 2.0	Second Movement Control Order
MENA	Middle East and North Africa
MESDAQ	Malaysian Exchange of Securities Dealing and Automated Quotation
MGISA	Mit-Ghamr Islamic Saving Associations
MG	Malaysian Government Securities
MIFC	Malaysia International Islamic Financial Sector
MIFC	Malaysia International Islamic Financial Centre
NRP	National Recovery Plan
OECD	Organisation for Economic Co-operation and Development
OIC	Organisation of Islamic Cooperation
PCA	Principal Component Analysis
PDPA	Personal Data Protection Act
PFC	Pilgrims Fund Corporation
<i>PI</i>	Private Investment
PIDM	Perbadanan Insurans Deposit Malaysia
PLS	Profit and Loss Sharing
PP	Fisher-Phillips-Perron
RESET	Ramsey Regression Specification Test
RIA	Restricted Investment Account
RO	Research Objectives
ROE	Return on Equity
SAC	<i>Shari'ah</i> Advisory Council
SCMC	<i>Shari'ah</i> Compliant Market Capitalization
SCS	<i>Shari'ah</i> Compliant Securities
SGF	<i>Shari'ah</i> Governance Framework
SIC	Schwarz Information Criterion
SMEs	Small and Medium Enterprises
SOPs	Standard Operating Procedures

SPSS	Statistical Package for the Social Science
<i>TB</i>	Trade Balance
UAE	United Arab Emirates
UECM	Unrestricted Error Correction Model
UK	United Kingdom
URIA	Unrestricted Investment Account
US	United States
VAR	Vector Autoregressive
VARSOC	Vector Auto Regressive Specification Order Criterion
VECM	Vector Error Correction Model
VIF	Variable Inflation Factors
et al.	(et alia): and others
N/A	not applicable
n. d.	no date
i.e.	that is
p.	page
IIFM	International Islamic Financial Market
IILM	International Islamic Liquidity Management Corporation
INCEIF	International Centre for Education
<i>INF</i>	Inflation
<i>IP</i>	Industrial Production Index
IPS	Im, Pesaran, and Shin
LFX	Labuan International Financial Exchange
LLC	Levin, Lin, and Chu
LOFSA	Labuan Offshore Financial Services Authority
MCO	Movement Control Order
MCO 2.0	Second Movement Control Order
MENA	Middle East and North Africa
MESDAQ	Malaysian Exchange of Securities Dealing and Automated Quotation
MGISA	Mit-Ghamr Islamic Saving Associations
MGS	Malaysian Government Securities
MIFC	Malaysia International Islamic Financial Sector
MIFC	Malaysia International Islamic Financial Centre
NRP	National Recovery Plan
OECD	Organisation for Economic Co-operation and Development
OIC	Organisation of Islamic Cooperation
PCA	Principal Component Analysis
PDPA	Personal Data Protection Act

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF RESEARCH

Islam lays down the foundational ideas and regulations for every facet of life, including the economy, and what sets the Islamic economics system apart from all others is its emphasis on justice (Iqbal and Mirakhor, 2011). They further added that an economic system can be defined as a group of organisations created by society to manage the distribution of revenue and wealth that results from the creation of goods and services, the allocation of resources, and output, which also applies to Islam, with a significant exception that the term “society” is substituted with the word “the Law-giver”. Hence, an Islamic economic system according to Iqbal and Mirakhor (2011) would be described as having the following characteristics:

“A collection of institutions (that is, formal and informal rules of conduct and their enforcement characteristics) designed by the Law-Giver (that is, Allah (s.w.t) through the rules prescribed in the *Qur'an*, operationalized by the *sunnah* of the Prophet (p.b.u.h) and extended to new situations by *ijtihad*) to deal with allocation of scarce resources, production, and the exchange of goods and services and the distribution of the resulting income and wealth”

Accordingly, Islamic financial system is established to execute the goals of Islamic economics (Iqbal and Mirakhor, 2013). It is supported by a legal and commercial framework and consists of many sub-systems, including Islamic banking, Islamic capital market, and Takaful. The key characteristic of an Islamic financial system (IFS) is the total ban of both receipt and payment of interest as it violates the principles of equality, social justice and property rights (Khan and Mirakhor, 1989). As a result, countries that have decided to align their economic systems in accordance with the Islamic law (or *Shari'ah*) have to reorganise their financial systems to comply with the prohibition on interest-based financial transactions. Islamic law allows for a variable rate of return, which depends on trade and earnings, while rejecting the notion of a fixed interest rate. Islamic financial intermediaries like Islamic banks in an Islamic

country, where a dual or fully-fledge banking system is adopted, most of them function on a profit-and-loss basis as well as *Murabahah* contract to practice economic activities in accordance with Islamic law. Such settings for the conduct of financial transactions have been implemented in the Islamic Republic of Iran, Pakistan, and to a greater extent in other Islamic countries like Malaysia, which has been ranked first in Global Islamic Economy Indicator (GIEI) for nine consecutive years according to the State of Global Islamic Economy Report (2022).

Although Malaysia has been doing well in terms of the industrial perspective, where the Malaysian Islamic finance industry has demonstrated continuous development with a 9% increase in Islamic finance assets and a 20% increase in the value of Islamic funds, and has surpassed the government benchmark as of 2022 with a total score of 100%, it is doing poorly in terms of the ideological perspective, as it is still not achieving the government benchmark in terms of societal contribution, with a score of merely 20% (State of Global Islamic Economy Report, 2022). Despite the success of the Islamic financial industry, some still argue that it is facing an identity crisis, where the system mimics the conventional one, and fails to achieve the objectives of Islamic economics (Imon, 2018). Hence, the Malaysian Government has introduced Islamic Financial Services Act (IFSA) in 2013 to further enhance the application of Islamic financial system according to the *Shari'ah* principles.

Accordingly, this study explores two aspects; 1) The effectiveness of IFSA 2013 in enhancing the economic growth, and 2) The social impact of Islamic financial system as advocated by the *Shari'ah* law. In the field of economic development, the link between financial development and economic growth has been a significant subject over the recent years. The notional basis of this correlation can be tracked as far back as Joseph Schumpeter's research in the beginning of the 20th century, Robinson (1952), Goldsmith (1969), and later to Shaw (1973) and McKinnon (1973), who illustrate the significance of financial liberalization in encouraging domestic investment and savings.

Empirical research on the link between financial development and long-run economic growth, including Roubini and Sala-I-Martin (1992) as well as King and Levine (1993a), have shown that established financial sectors will stimulate a better

financial resources allocation into a creative and productive, which will then contribute positively to the growth of the economy. However, according to Lucas (1988), the Neoclassical theorists argued that finance is not a primary source of economic growth. Similarly, Christopoulos and Tsionas (2004) contended that the link between financial development and economic growth has long been overstressed in the literature, and in line with this, Singh (1997), Andersen and Tarp (2003), Ductor and Grechyna (2015), and Ayadi et al. (2015) provided evidence for an inverse correlation between financial development and the economic growth.

Research on the finance-growth nexus has been conducted in endogenous growth literatures. The World Economic Forum (2012) defined financial development as “the conditions, policies, and institutions that contribute to successful financial intermediation and markets, as well as deep and broad access to capital and financial services”. On the other hand, Kuznets (1973) defined economic growth as a sustained rise in a nation’s ability to provide its people with a wider range of economic goods and services, predicated on the advancement of technology and the corresponding institutional and ideological shifts. In examining the demonstrated in Table 1.1 below:

Table 1.1 Hypotheses of Finance-Growth Nexus (Patrick, 1966).

No.	Hypothesis	View
1	Supply-Leading Hypothesis	Financial development drives economic growth.
2	Demand-Following Hypothesis	Growth in the real economy drives financial development.
3	Mutual Dependence Hypothesis	The causality between financial development and economic growth is bidirectional. It is argued that in the under-developed countries, financial development leads to economic growth, whereas in the highly developed economies, economic growth leads to financial development.
4	Neutrality Hypothesis	The finance-growth nexus is unnecessarily over-stressed as it is not necessarily an important factor in the growth process.

(Patrick, 1966)

Further theorising and empirical research are needed in the debate over the relationship between finance and growth. Even so, it is still unclear exactly how finance and growth are related. The broad consensus is that, at least for emerging businesses and economically developing nations, finance stimulates economic growth (Marwa and Zhanje, 2015). They further added that although finance is important for

economic growth, its positive effects only last until the point at which the economy begins to self-destruct.

Comparably, the increasing presence of Islamic banking and finance since 1970s has also called for an evaluation of the contribution of IF to the economic development. Kassim (2016) investigated the impact of IF on real economic performances, where it is found that IF has started to make important contributions to the real economy by effectively pooling and channeling funds to the investment activities via the financial intermediations. Amongst the studies that explore the possibilities of IF to contribute positively to the economic growth were done by Furqani and Mulyany (2009), Nagaoka (2011), Abdul Manap et al. (2012), Abduh and Omar (2012), Abduh et al. (2012) and Yusof and Bahlous (2013), Kassim (2016), Ali and Uddin (2016), Smaoui and Nechi (2017), Zarrouk et al. (2017), Chowdhury et al. (2018), and Boukhatem and Moussa (2018), Ledhem and Mekidiche (2020), Ullah et al. (2020), Gwadabe and Ab Rahman (2020), Anwar et al. (2020), Juhro et al. (2020), Mensi et al. (2020), Alafif and Shaheen (2021), Ali (2021), Siddiqui (2021), Hassan et al. (2021), Benbekhti and Bouteldja (2021), Zahid and Arshad (2021), Tan and Shafi (2021), Gani and Bahari (2021), Arsyianti and Kassim (2021), Naz and Gulzar (2022), Butt et al. (2023) and Shawtari et al. (2023).

On the contrary, Bm and Uddin (2016) showed that there is no connection between Islamic banks and economic growth, which indicates that the contribution of Islamic financial sector toward the economic growth is weak and further research should include Islamic capital market as well as zakat funds as they also play an important role especially in the rural areas. Furthermore, Takaful should be taken into consideration when attempting to determine how closely Islamic financial intermediaries relate to economic growth (Rawat and Mehdi, 2017). Despite the abundance of studies in Islamic finance-growth nexus, there is a need to explore the efficiency of IFSA 2013 in assisting IF to boost economic growth, plus there is a very lack of studies that do so.

Hence, this research intends to investigate the relationship between Islamic financial development, which includes the Islamic banking (IB) sector, the Islamic capital market (ICM), and the Takaful industry, and real economic growth in Malaysia

as there are still few studies that have focused on Islamic financial sector in relation to the real economy and other sectors than IB (Kassim, 2016; Bm and Uddin, 2016). findings of this study will help industry players and policymakers to analyse their financial policy choices and business strategies with the goal of expanding IF's contribution to the real economic activities. The study also sheds light on the reality of IF in the view of Islamic economics to explore the social impact of IF according to the *Shari'ah* law.

1.1.1 The Recent Trends of Financial Development and Economic Growth

Moving forward, the research is looking at the recent trends as they are important to help us understand the context and direction of the industry and the world. By being aware of the trends that affect the industry, the changes and challenges that may arise can be anticipated and prepared for accordingly.

Recently, states and semi-public sectors of the economy are ever more reliant on financial markets, and they are assessed similarly to corporations, where scorecards for both national and municipal governments are supplied by rating agencies, and social scientists are starting to use the term “financialization” a lot more frequently (Aalbers, 2019). Financialization according to Epstein (2005) can be defined as:

“The increasing dominance of financial actors, markets, practices, measurements, and narratives, at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states, and households”

Moreover, Aalbers (2019) also added that financialization impacts households more and more, in addition to corporations and governmental entities. A deeper integration of finance into daily life and a greater susceptibility of people's financial stability to the performance of financial markets are the outcomes of the transition from an industrialized to a financialized society. In Malaysia, Islamic finance is the biggest sector in the Islamic economic system (State of Global Islamic Economy Report, 2022), which signifies the expansion of financialization in the nation.

In 2020, there was a COVID-19 outbreak in Malaysia that has affected the

economy severely. However, the Malaysian economy is recovered in 2021 by 3.1% (2020: - 5.6%) as shown in Figure 1.1, largely due to a turnaround in private sector spending. The year's containment efforts due to the pandemic, which include the National Recovery Plan (NRP) in June 2021 and the Second Movement Control Order (MCO 2.0) in January 2021, however, had an impact on the recovery momentum. Nonetheless, compared to 2020, the negative impact on people and companies had been reduced due to fewer onerous limitations, greater adjustments to the new norm, improved compliance with the standard operating procedures (SOPs), and rapid progress in immunisation. Besides, the gradual improvement in the labour market and income levels had also supported consumer expenditure. In the meantime, continued capital expenditures, particularly by private companies in the export-oriented sectors, benefited investment activity. Most importantly, the affected households and companies can still access the policy supports (BNM, 2021). Globally, the strong exports performance was fuelled by the recovery in global trade and economic activity, which was further boosted by the upswing in global technology. Net exports, however, decreased since import growth outpaced export growth.



Figure 1.1 Real Gross Domestic Product (GDP) Growth in Malaysia (1995-2021)
Source: BNM (2021)

1.1.2 The Promulgation of IFSA 2013 by Bank Negara Malaysia (BNM)

The promulgation of IFSA 2013 by BNM, which took effect on June 30, 2013, marks a significant change in the Malaysian financial sector landscape. It marks the attempt of Malaysia to further support and strengthen the Islamic financial services industry (IFIs)'s *Shari'ah* governance and compliance, which represents the pinnacle of effort of the Malaysian IFIs' legal framework, particularly in the aspect of *Shari'ah* compliance (Laldin and Furqani, 2018). IFSA 2013 specifically focuses on a total *Shari'ah* compliance endeavour of the IFIs via four dimensions, which are:

- (1) The framework of *Shari'ah* governance.
- (2) *Shari'ah* standards for Islamic financial transactions' contracts.
- (3) Preventative procedures and measures to address the issues regarding the interests of both policyholders and depositors; and
- (4) Effective functions of Islamic financial intermediation.

Furthermore, IFSA 2013 also states that amongst the responsibilities of an IFI is to "ensure that its aims and operations, businesses affairs and activities are in compliance with the principles of *Shari'ah*" in Section 28(1). The definition of *Shari'ah* compliance is described in Section 28(2) of IFSA 2013 as follows:

"A compliance with any ruling of the Shariah Advisory Council (SAC) in respect of any particular aim and operation, business, affair or activity shall be deemed to be a compliance with *Shari'ah* in respect of that aims and operations, business, affair or activity"

In other words, the IFIs should adhere to *Shari'ah* principles by:

- Adhering to the rulings and *Shari'ah* standards of the SAC of BNM;
- Ensuring the internal procedures and policies are consistent with the *Shari'ah* standards; and
- Establishing *Shari'ah* audit function.

The fundamental goal of IFSA 2013 is to maintain the relevance and effectiveness of the financial regulatory and supervisory system. This new reform is

critical for the financial system and economy to preserve financial stability and encourage inclusive growth as according to BNM (2022), investment accounts for example, will provide Islamic banks with additional avenues for obtaining capital that may be effectively channelled towards profitable endeavours by utilising equity-based contracts and other *Shari'ah*-compliant arrangements. As a result, Islamic banks will play a bigger role as financial intermediaries in fostering development and economic progress. Given the study's time frame of 2007 to 2019, this research also adds to the body of knowledge by broadening the scope of the study by evaluating the differences in outcomes between pre-IFSA 2013 and post-IFSA 2013 amongst the three financial sectors to the economic growth to enrich the literature concerning IF-growth nexus.

1.1.3 Value-Based Intermediation (VBI)

Next, the concept of VBI is introduced in this section to observe the social impact of Islamic financial system as advocated by the *Shari'ah* law, which will covered by the research objective 3. In Malaysia, VBI was introduced in July 2017 (Mahadi et al., 2019). This was accomplished by the Central Bank of Malaysia's publication of a strategy document titled "Value-based Intermediation: Strengthening the Roles and Impact of Islamic Finance." The implementation of VBI has drawn praise from industry participants, particularly *Shari'ah* scholars. The Islamic Financial Services Industry (IFSI) is shaped to be stronger, especially in resilience towards economic crises, by incorporating VBI as an approach to sustainability. Adopting value-based strategies in Islamic banking, according to Tok and Yesuf (2022), improves the sustainability, resilience, and social impacts of banks by allocating resources to value-based initiatives that foster inclusive and sustainable economic growth and offer economic resiliency. Additionally, Malaysia is working to integrate VBI into the practical financial services provided by the IFSI. This is done in the hopes that IFSI can go to the next stage of development. Along with the release of the VBI strategy paper, BNM also released three key guiding documents, which are the VBI Implementation Guide, the VBI Financing and Investment Impact Assessment Framework (VBIAF), and the VBI Scorecard. These three key documents serve the following precise purposes, according to the BNM (2018)'s announcement:

“The VBI aims to re-orient Islamic Finance business models towards realising the objectives of *Shari’ah* that generate positive and sustainable impact to the economy, community and environment through practices, processes, offerings, and conduct: The Implementation Guide for VBI provides guidance on practical value- based banking practices, as reference to Islamic financial institutions that intend to embark on the Value-based Intermediation initiative. It also outlines the phases of implementation and deliberates on key implementation challenges alongside some pragmatic solutions. The VBI Financing and Investment Impact Assessment Framework (VBIAF) facilitates the implementation of an impact-based risk management system for assessing the financing and investment activities of Islamic banking institutions in line with their respective VBI commitment; and the VBI Scorecard provides an overview that covers purposes, key components of assessment and proposed measurement methodology”

According to the aforementioned documents, VBI is described as “an intermediation function that seeks to deliver the intended outcomes of *Shari’ah* through practices, conduct, and offerings that generate positive and sustainable impact on the economy, community, and environment, consistent with the shareholders’ sustainable returns and long-term interests” as an approach for IFSI sustainability.

1.2 MOTIVATION OF STUDY

The interest to conduct this study stems from Islamic faith-inspired ethical needs of Muslims, in which the principles are adopted as a “way of life” that touches all sectors, with values that have universal appeals. It is thought to have solutions to all economic and social issues, regardless of time or location. Islamic economics and finance are inextricably linked to ethics and social values. In this view, the movement for IF and economics, which has been gaining traction for the past forty years, may be understood as an attempt to integrate ethics and social justice into the core of the system. Perhaps more than any other social discipline, IF and economics have produced significant new concepts and applications in the recent years. This growth necessitates taking stock of accomplishments and identifying development gaps on a regular basis. The motivation to do this research also comes from the desire to serve the community, to get intellectual joy of doing something creative as well as concern over the practical

problems. The findings of this study aim to help industry players and policymakers around IF and Economics.

1.3 PROBLEM STATEMENT

The attempts to return back to Islamic roots in the areas of economics and finance, which have begun more than fifty years ago, should be emphasized. During the early years, the research topic in IF and economics areas are explored in broad terms in relation to sociology and religion (Narayan and Phan, 2019). Both areas are currently being taught at numerous academic institutions, drawing researchers' attention, and influencing the operation of various economic, financial, and social institutions.

While Islamic economics is still improving its analytical tools, IF has advanced further into practise. However, although Malaysia is doing well in terms of IF development, it is still not at the forefront in terms of societal contributions. This is due to the private sectors' goal of mimicking conventional finance in the creation of new products, as well as the public sector's policy of promoting a dual-system practice to financial sector's growth, that have influenced the path of its development thus far. Genuine innovation and a far broader range of applications are yet mostly untapped (Mirakhor, 2010).

Despite the IF development, there are still numerous issues to be addressed. Contrary to the general perception, many of the issues that IF faces are not new. For instance, as illustrated in Figure 1.2, Iqbal et al. (1998) have highlighted the key issues that are confronting the Islamic financial sector in general, particularly IB sector.



Figure 1.2 Key Challenges of Islamic Financial Sector
Source: Iqbal et al. (1998)

Iqbal et al. (1998) had mentioned several key challenges that are faced by Islamic financial sector, which include lack of proper institutional framework, increase in competition, lack of strategic alliance, small individual banks' size, and need for financial engineering, human capital development, mechanisms for Shari'ah auditing and compliance, variable return financing, more equity financing institutions, as well as improved legal and supervisory framework. Although many of the challenges are being addressed by the Islamic financial sector successfully as time goes by, there are still some issues that are still needed for more improvement especially the human capital development, fierce competition as well as legal, supervisory, and institutional framework (Boukhatem and Moussa, 2018 and Yas et al., 2020).

This study focuses on three issues in the area of IF-growth nexus. Two of the issues are from Iqbal et al. (1998), which are the importance of improving legal, supervisory, and institutional framework, which is also emphasized by Boukhatem and Moussa (2018) and Yas et al. (2020), and also the lack of mechanisms for *Shari'ah* compliance, causes Islamic economics and finance to face an identity crisis, which causes a bridge between IF development and IF contributions according to *Maqasid Shari'ah*. Furthermore, this study also focuses on the issue of the lack of coverage on

the other sectors such as ICM and Takaful, besides IB in the study of IF-growth nexus as suggested by Al Fathan and Arundina (2019).

1.3.1 Lack of Coverage on the Other Sectors Besides IB in the Study of IF-Growth Nexus

Currently, the global Islamic financial sector consists of Islamic banks, which include investment and commercial banks, non-bank financial institutions, such as fund management and investment companies, Islamic capital markets, which includes *sukuk* and stock markets, Takaful providers, and infrastructure institutions, which includes rating agencies and organisations or associations that set the regulatory and accounting standards as shown in Figure 1.3 below.

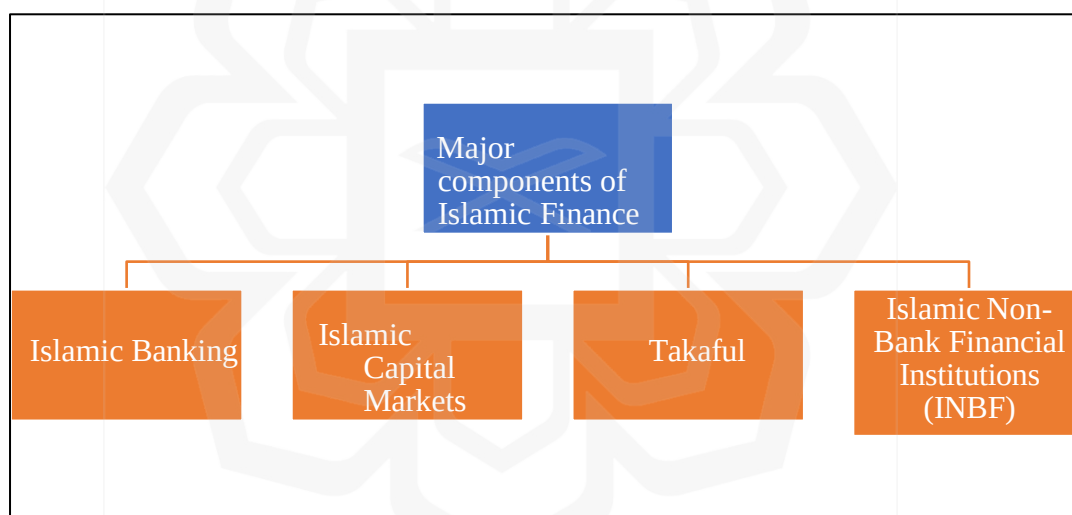


Figure 1.3 Major Components of IF
Source: International Centre for Education in IF (INCEIF, 2020)

In Malaysia, an abundance of studies in the area of IF-growth nexus have been focusing heavily on IB sector. There are very few studies that take into account other sectors like ICM and Takaful. Al Fathan and Arundina (2019), suggested that there is a need to include other Islamic financial sector components such as *sukuk* market and Takaful industry in the study of IF-growth nexus as there is still lack of studies that cover those areas, particularly Takaful sector. Aziz and Kassim (2020), who examined the impact of Takaful on economic growth, found that the investment and savings behaviour of the societies, in addition to the investment- linked Takaful, have a positive

influence on the Takaful demand, contributing to the economic growth in Malaysia. Furthermore, the empirical results of Ahmad and Hasan (2020)'s work suggested that the Takaful income can improve the GDP growth as well as increase the employment rate. They also stated that there is a need to conduct similar research with different variables, time frame, and methods to ensure the robustness of the results. Consequently, this study will include two other major components of Islamic financial sector, besides IB sector, which are ICM and Takaful sector.

1.3.2 Introduction of IFSA 2013 to Improve Legal and Institutional Framework

There has been a substantial development in the landscape of Malaysian financial system with the issuance of IFSA 2013 by BNM. The main goal of IFSA 2013 is to ensure that the financial supervisory and regulatory system remain useful and relevant. This new reform is very important to support inclusive growth and to sustain financial stability in the financial system and economy. Most of the existing body of literature debated on the link between IF and economic growth and many found that there is a close relationship between the two, while there are also studies that suggested otherwise (Nyasha & Odhiambo, 2015). However, Yusof and Loong (2020) stated that there is lack of studies that take into account the effect of IFSA 2013 in the studies of IF-growth nexus.

IFSA 2013 has been implementing a transition in policy, effecting from 1 July 2015, where the current Islamic deposit products that implement the *Shari'ah* contracts of *Wakalah*, *Musharakah*, and *Mudarabah* are classified as investment products, in which the principal is not guaranteed under the investment account (IA) (Bank Islam Malaysia Berhad, 2014). Correspondingly, this study intends to shed some light on whether IFSA 2013 moves IF towards a positive real economic growth.

1.3.3 Identity Crisis of Islamic Finance

Hussain and Turk (2016) mentioned that *Shari'ah* jurisprudence does not differentiate between religious and other aspects of life, and this include transactions that are falling under either economic, political, or social sphere (*muamalat*). However,

Tahir (2004) stated that “Islamic economics” is already facing an identity crisis, as it is being seen as “economics with moral and ethical values”, and the trend is embracing Islamic financial sector too as it is also viewed as “finance with emphasis on Islamic values” as if Islamic values are merely another branch of the system. He further added that there is a need for an urgent study on several fronts, which includes the need for a common *fiqh* and the need for necessary changes in the legal framework.

Imon (2018) mentioned that in order to understand the apparent problem of the Islamic financial system (IFS), there is a need to understand two groups of critics who are central to the development of the IFS. The first group who are concerned about the recent performance shortcomings in the IFS are referred to as “mainstreamists”, while the second group who are concerned about a deviation from conventional norms, are labeled as “structuralists”.

Mainstreamists are predominantly practitioners who prefer to emulate mainstream practices within the IFS framework. Owing to their direct connection to the industry, mainstreamists tend to be pragmatists who would rather develop the IFS by making use of conventional banking technics rather than experiment with a new corporate governance framework that has no proven track record. Unfortunately, recent statistics indicate that this strategy is not without its problems since IFS has faced slower growth in the recent times. On the other hand, the position of structuralists can be summarized as critics who oppose mainstreamists because of their belief that emulation of the IFS leads to deeper entrenchment of Islamic financial institutions in conventional financial institutions’ values through path dependency. Instead, structuralists call for a structural change in Islamic financial institutions so that risk-sharing and equity-based financing modes can lead to better real-sector value added and improved socioeconomic outcomes.

Moreover, the academia often describes IF development as being at a critical juncture where the emulate-innovate debate must be settled. Thus, it is not surprising that critics describe the IF as being in a “dilemma” (Khan, 2010; Dar and Presley, 2000; El-Gamal, 2000; Ahmad, 1994; Chapra, 1985); or, at a “crossroads” (Al-Jahri, 2015; Hassan and Lewis, 2007; Hasan, 2005; Ahmad, 1989). According to Imon (2018), a crossroad implies that Islamic financial institutions have reached a fork

in its development path, and it is in a dilemma regarding whether it should take the mainstreamist route, which refers to the group who favour conventional banking procedures or the structuralist one, which prefer the Islamic bank to alter structurally in accordance with the normative values that it was initially (but hypothetically) formed upon. It gives the impression that the two sets of critics hold each other back because of the different developmental-positions taken by mainstreamists and structuralists. In other words, the industry has reached an ideological stalemate on how IF should develop.

However, such a scenario is unlikely to be true because IF has shown a general tendency to develop according to the conventional finance framework. Thus, the problem of IF development goes beyond its identity. The issue of why IF-development has continued according to conventional standards despite prolonged criticism from structuralists is still a mystery. Structuralists would hypothesize that Islamic financial institutions are ignorant to their suggestions, as they are directly accountable to shareholders, however they have been opened to changes in the *Shari'ah* Governance Framework (SGF) as well as the legal framework such as the IFSA 2013, which brought stricter guidelines of *Shari'ah* compliance. Thus, the criteria for normative development within the Islamic financial institutions is unclear. Dispute is rising amongst the mainstreamist and structuralist as the former believes that IF is very successful, while the later believes that IF is unsuccessful as there is a bridge between IF development and IF contributions according to *Maqasid Shari'ah*. Therefore, this study will shed some light on how to address the associated issues, and to provide evidence of whether IF satisfies *Maqasid Shari'ah* via interviewing the experts in the IF industry.

1.4 RESEARCH QUESTIONS

In line with the problem statement, this study aims to address the subsequent research questions:

1. What is the relationship of each component of Islamic financial sector (IB, ICM and Takaful) and real economic growth in Malaysia in the short-run and long-run?

2. Has the introduction of IFSA 2013 had a significant effect on each of the three sectors of IF (IB, ICM and Takaful) and real economic growth in Malaysia in the short-run and long-run?
3. Does IF fulfil the goals of Islamic economics?

1.5 RESEARCH OBJECTIVES

This study is constructed on the general objective, which is to examine the relationship between Islamic financial sector and real economic growth in Malaysia. In line with the research questions, this study aims to accomplish the subsequent specific objectives:

1. To investigate the relationship of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia in the short-run and long-run.
2. To analyse whether the introduction of IFSA 2013 has a significant effect on each of the three sectors of IF (IB, ICM and Takaful) and real economic growth in Malaysia in the short-run and long-run.
3. To observe whether IF is fulfilling the goals of Islamic economics.

1.6 SIGNIFICANCE OF STUDY

The major contributing factor of this research is to provide new evidence on the link between Islamic financial sector and real economic growth in Malaysia. As previous studies have not attempted to study the financial sectors impact on the growth comprehensively, this study attempts to evaluate the link between two other sectors besides IB, which are ICM and Takaful and real economic growth. Moreover, this study also considers the implementation of IFSA 2013 in the landscape of Malaysian Islamic financial system into the analysis. IFSA 2013 came into force on 30 June 2013, and it faced a transition in policy that took into effect on 1 July 2015, which means that IFSA laws had to be implemented by the Islamic financial system by 1 July 2015. Hence, it affects profoundly the variables of Islamic financial sector development.

Therefore, this study aims to fill the gap of IF-growth studies in Malaysia in terms of the associated issue as there is very few studies that have investigated the significance of IFSA in moving the Malaysian IF sector towards real economic value. It enriches the existing limited studies on IF-growth in the case of Malaysia by exploring whether or not the IFSA 2013 benefits the link between the two.

Besides filling the research gap in terms of the consideration of the IFSA 2013 and other sector into the study, this study also enriches existing studies in terms of the variables, where unlike the previous studies on the finance-growth nexus, which employ GDP value that is measured in currency as the dependent variable, industrial production index (*IP*) is employed to represent the economy's real sector to explore whether or not Islamic financial sector contributes to the real economy, an economy which concerns more on the production, purchasing power, and also the flow of goods and services, and this is suitable given the theoretically estimated connection amongst IF and real economic activities (Kassim, 2016). *IP* is chosen as a proxy to the real economic growth because it reflects the producer's side, which is more reflecting the real growth as it helps to measure real output in the leading sectors, which are mining, manufacturing, gas, and electric industries as further explained in Chapter 3.

Real sector is perhaps the most important sector of an economy since its activities influence economic production (Khalil, 2018). It is made up of those economic sectors that are necessary for the economy's growth such as manufacturing, electricity, and mining sectors. According to Adeusi and Aluko (2015), the sector is critical for the economy's long-term viability because of its productive capacity to fulfil the nations' aggregate demand. In addition, they added that the real sector will become more fruitful if it is accompanied by a healthier and better financial system; hence, financial sector development is one of the best methods for the real sector development. Ductor and Greychyna (2015) stated that the impact of financial progress on economic development is uncertain due to the broad definition and interdependence with some other sectors of economic growth.

In addition, as many studies in the IF-growth nexus have been heavily focused on IB., this study is adopting an additional variable, which is IB assets to signify the volume of the IB sector's business, besides two other variables that were often used by

the previous researchers, IB deposits and financing to represent the IB development. The indicator chosen is in line with the study of Levine (1996), who adopts total assets of the banks to signify the business volume, and consistent with the study of Budhathoki and Rai (2020), which suggested that further studies should include more indicators to represent a variable. Last but not least, this study also sheds some light on how to address the disputes between mainstreamist and structuralist, and to provide evidence of whether IF satisfies *the Maqasid Shari'ah*.

1.7 SCOPE AND LIMITATION OF STUDY

This study generally attempts to analyse the linkages between Islamic financial sector (IB, ICM and Takaful) and real sector of the economy in Malaysia by taking into account the implementation of IFSA 2013, with a sample period of 2007 – 2019 on a monthly/quarterly basis. To achieve the specific research objectives, this study will adopt both quantitative and qualitative analyses. The first and second research objective will adopt empirical estimation that employ a time-series secondary data, while the third research objective will utilize a primary data that are collected from several interviewees with qualitative analysis as the analytical tool.

This research is confined to three major sectors of Islamic financial system. Besides, the study also notes that the introduction of IFSA can post a significant impact to IF-growth nexus. However, IFSA is only introduced in the beginning of June 2013 and the grace period for compliance to IFSA are accorded. Effectively compliance to IFSA especially with respect to the definition of deposit and investment only starts on July 2015. Hence, it is rather limited from data perspective, especially for the analysis that is related to post IFSA period. Since IFSA, other governance elements have been changed and altered. Other changes also include financial reporting standards, and shifts in governance values, which are not covered in this study. In addition, this study is also confined to IF practice in Malaysia, and hence, further research with a larger sample size, which includes other countries, should be done in order for the results to be generalized to the whole system.

1.8 ORGANISATION OF STUDY

The study is organized into six chapters. Chapter I, which is the Introduction section, explains the background of the study, motivation of study, problem statements, research questions and objectives, significance of the study, scope and limitations as well as organisation of the study.

To assess the understanding of nexus between both conventional and IF and growth, Chapter II, which is an additional section that presents the historical context for creating the Islamic financial system, which will then be contrasted with the contemporary reality of modern IF, the background of the Malaysian financial sector, IFSA 2013, the *IA* as well as the landscape of Malaysian Islamic economy. Key to the discussion is the structure of the banking system in Malaysia, especially on the existence of dual banking system, where conventional and Islamic banks operate in parallel, Islamic capital market, and also Takaful industry. As IB developed over the years, different type of product is introduced, and they are skewed towards conventional values and focuses on debt-based financing. The establishment of *IA* is an attempt by IFSA 2013 to make IF skews towards Islamic values. Hence in this chapter, overview of *IA* is given.

To assess the understanding of both conventional and IF and growth relationship, Chapter III, which is the Literature Review section, explains and appraises theoretical background on the mechanism of the financial sector that is influencing the economic growth. Then, it further reviews the recent development of both conventional and IF and growth empirical literatures, which include comprehensive cross-country growth regressions, time- series analyses, panel data estimations, thorough country studies, and any other methodologies used to discover the connecting mechanisms between finance and growth.

Chapter IV, which is the Methodology section, gives details of the data used in this study and its sources. Furthermore, this chapter explains the model and all variables that are employed in this study. It also provides an introduction to and motivation for the regression technique utilization as the primary methodology used in this study to answer research question 1 and 2 for IB and capital market sectors. Moreover, it further explores the model of the regression technique used, explains its specification, describes the output from the procedures and examines the various views

and procedures of its inferential methods. In addition, this study also explains Pearson correlation and descriptive analysis, as well as qualitative method based on interview that are used to analyse Takaful-growth nexus, and interview method to answer research question 3 of the study.

Moving forward, the empirical analyses and results of this research study on the relevance of Islamic financial sector development on real sectors of the economy, considering the implementation of IFSA 2013 are provided in Chapter V, which is the Results and Discussion section. It reports the results and findings of this study based on descriptive statistics, scatterplot graphs, correlation and discusses the economic implications of the findings. It further elucidates the empirical findings based on the regression, correlation, and interview techniques used.

Finally, Chapter VI, which is the Conclusion section, summarizes all chapters and concludes all the findings of this study. Then, it further explains the shortcomings and limitations of this study, suggests some advice and inputs for future research, and proposes for policy recommendation.

CHAPTER TWO

BACKGROUND OF STUDY

2.1 INTRODUCTION

Chapter 2 set the tone for discussion on the crucial components of this study, namely the historical overview of IF and the current practices, the nature of Malaysian financial system, which includes banking system and the fundamentals for IA, ICM, Takaful industry, IFSA 2013 and also the landscape of Islamic economy in Malaysia. Key to the discussion is the existence of dual banking system in Malaysia where conventional and Islamic banks are operating side by side, which leads to the existence of IA. Moreover, there will also be discussion on how introduction of IFSA 2013 has reshaped the structuring and offering of IA, from a product that is initially a replication of the conventional bank's fixed deposit to a genuine investment product. In addition, the effect of IFSA 2013 on ICM and Takaful industry is also presented in this chapter. Such a transformation posts impact towards IF-growth nexus but before this is further investigated, one need to have firm understanding on the overall financial system in Malaysia, which is presented in this chapter.

2.2 AN OVERVIEW OF ISLAMIC FINANCE HISTORY

IF's modern era began with ground-breaking efforts in Egypt at the beginning of the 1960s. The Mit-Ghamr Islamic Saving Associations (MGISA) tapped into Muslim investors' funds and gave halal profits. In the first three years of operation, the MGISA drew a flood of deposits, which increased at a pace of more than 100% annually. Later, in 1962, the Pilgrims Fund Corporation (PFC) allowed Malaysian Muslims to progressively save and invest in *Shari'ah*-compliant instruments to assist their expenses during the Hajj time (pilgrimage).

In 1976, Mecca hosted the First Islamic Conference on Islamic Economics. The first high-level meeting in Islamic history to focus only on economic issues. Effective measures were implemented to promote Islamic economics. In order to carry

out and promote theoretical and applied research in many subfields, King Abdul Aziz University founded the International Center for Research in Islamic Economics (ICRIE) in 1979. Throughout the 1980s and 1990s, these research institutions multiplied, and additional universities increased their Islamic economics courses. A rising number of nations attempted to Islamicize their economic systems, beginning with Pakistan in 1977. As a result, the official IB system began in the late 1970s with only a few institutions and small sums of money. However, during the next two decades, it has developed progressively.

The development of the Islamic Development Bank in 1975, which came soon after the formation of the first significant Islamic commercial bank—the Dubai Islamic Bank—in the United Arab Emirates, marked a turning point for the IB system. Several similar banks were founded as a result of the latter's success, including Kuwait Finance House and Faisal Islamic Bank in Sudan, both of which were founded in 1977. In Pakistan, attempts were taken as early as the late 1970s to bring the banking sector into compliance with the *Shari'ah* rules. The legal framework was then changed in 1980 to permit the operation of *Shari'ah*-compliant profit-sharing financing businesses and the using of Islamic financial instruments. The same thing happened in Iran, where a new banking legislation was passed in August 1983 to replace traditional banking with interest-free banking. The regulation allowed banks a three-year window to make changes to their business practises in order to comply with Islamic ideals. The Sudanese government began implementing *Shari'ah* rules to the financial sector in 1984.

Along with the fast expansion of IB, the financial infrastructure, which includes entities that create norms and regulate the industry, has also been keeping up. Although standardised Islamic products across many nations continue to be difficult, international standard-setting organisations have been developed to oversee the operations of the business globally. The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), located in Bahrain, has been making the *Shari'ah* standards for accounting and auditing of financial reporting for Islamic financial institutions since 1991. The Islamic Financial Services Board (IFSB), founded in Malaysia in 2002, is in charge of developing supervisory and regulatory norms and recommendations. It also encourages the appropriate regulatory bodies to

implement these guidelines and standards. In 2001, the International Islamic Financial Market (IIFM) in Bahrain was given the authority to create regulations for the issue of Islamic financial instruments and to promote active trading on the secondary market. In 2010, the International Islamic Liquidity Management Corporation (IILM), located in Malaysia, began issuing short-term *Shari'ah*-compliant financial instruments in 2010 to support cross-border Islamic liquidity management.

In the pre-modern Islamic world, there are no comprehensive financial systems. As a result, the way IF is being practised now is a unique experiment in the history of Islam. A structured banking system without interest has not occurred in the history of finance either. Hence, although IB continues to be “embedded” in the global financial system, its contemporary innovations can be explored and observed.

Most of the instruments that Islamic banks have embraced are not always utilised as financial instruments in the earlier times. For instance, the original Murabaha trade contract is intended to help a buyer who is unfamiliar with market business practises. Ijara also is merely a leasing agreement in consistent with the distinct ownership structure in *Shari'ah* law. These trade contracts are developed as financial instruments for IF to be established as a contemporary banking system. By fusing one trade contract with another during the formulation process, Islamic banks created the financial instruments. For instances, Ijara is transformed as a “finance lease” instrument called “Ijara wa Iqtina” to continue to play the role of lease by adding a sale contract at the end of the lease period. Hussain et al. (2015) stated that new interpretations by *Shari'ah* scholars allow trade contracts to perform as new financial instruments.

The other uniqueness of IF is that it coexists side by side with the conventional finance (Nagaoka, 2011). Although there are numerous contacts in the pre-modern and early modern world's Mediterranean commerce, the financial systems of both the Islamic world and Europe are divided by area. However, the contemporary application of IF not only offers services to the Islamic world but also spreads its enterprises to Europe and the global financial markets. IF is therefore greatly impacted by the traditional financial system, despite the fact that it is rooted in the real economy in theory. The supply and demand balance of the pertinent actual products, for instance,

supposedly determines the markup rate of Murabaha. The mark-up rate, however, is typically altered through arbitrage to match the interest rate of short-term loans. Another example is how newly created financial instruments in IF frequently borrow from the successful products in conventional finance, such as highly liquid instruments and financial derivatives. These circumstances undoubtedly lead to the IF's increasing competition with the conventional financing. The second modern innovation of IF is that it suggests that the embedded Islamic financial system in the modern world can come to exist with the support of an external system like the conventional finance system (Nagaoka, 2011). As a result, the disputes between mainstreamist and structuralist are not settled, as the former believes that IF has successfully been implemented, while the latter believes that IF has lost its identity as it is deep-rooted from the conventional finance.

2.3 THE MALAYSIAN FINANCIAL SYSTEM

Malaysia's financial sector has gone through various stages of evolution throughout the years and is unquestionably important to the country's economic prosperity. To chart and provide the foundation for a balanced, inclusive, and sustainable growth of the overall financial sector, including the banking sector, as a result of recent advancements, particularly in the areas of information technology and globalisation, the Financial Sector Masterplan (FSMP) was created.

The first FSMP, which ran from 2001 to 2010, lays the groundwork for the financial sector's orderly growth by focusing on the institutional capacity building of domestic intermediaries and the development of local financial infrastructures. The second masterplan for the financial industry, the Financial Sector Blueprint (Blueprint), was unveiled in 2011 for the period of 2011-2020. The Blueprint built on the first FSMP's accomplishments to create a financial ecosystem that will best serve a high-value-added and high-income Malaysian economy, while also extending regionally to satisfy the demands of Asia's financial markets. Aziz (2011) stated that the Blueprint's main goal is to create a financial ecosystem that will improve the financial sector's competitiveness both locally and regionally.

Strategies are being developed to promote universal access to financial

services, increase the number of financial institutions, products, and services that will facilitate and drive the development of new domestic sources of growth, and improve Malaysia's regional and international connectivity. This regional and worldwide integration will strengthen cross-border commerce and investment, as well as enable more efficient cross-border financial flow's intermediation. The internationalisation of IF and the development of Malaysia as a worldwide Islamic financial centre are also important aspects of this Blueprint (Aziz, 2011).

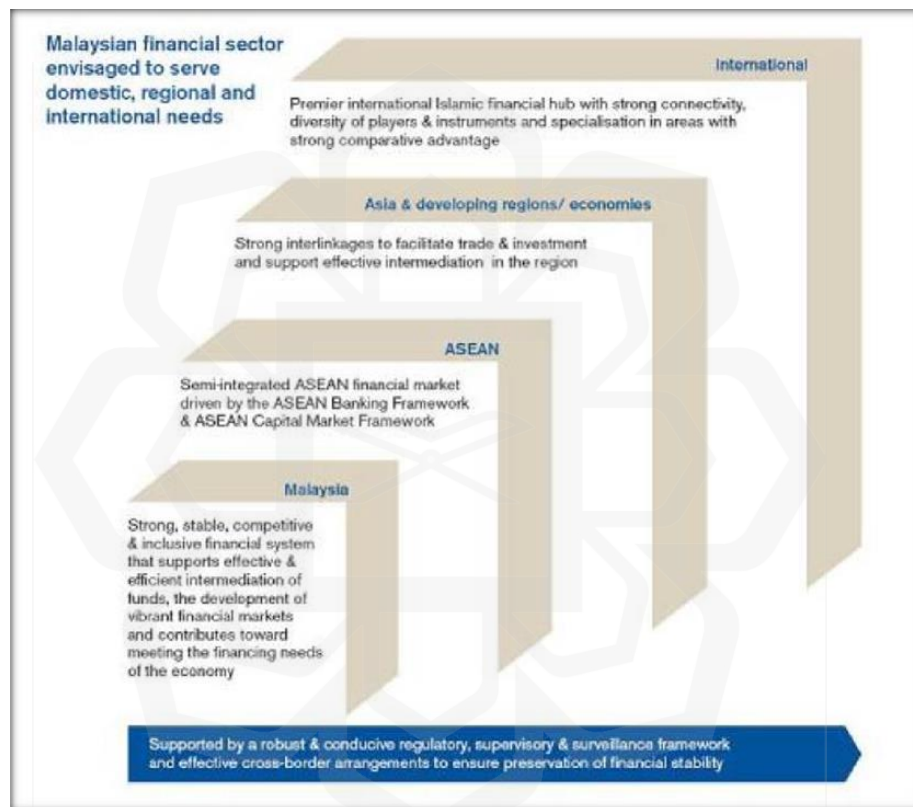


Figure 2.1 The Building Block of the Role of Malaysian Financial Sector
Source: BNM (2020)

However, the development might be delayed as a result of the global pandemic that was caused by COVID-19 in 2020, where the Global GDP, commerce, and commodity prices were expected to be lower. Production halted especially during the Movement Control Order (MCO) period, when non-essential industries were prohibited from operating as shown in Figure 2.2. While vital operations such as food and beverage manufacturing, transportation, and financial services were endured,

domestic supply limits were worsened by large labour capacity and operating hour restrictions, as well as stringent standard operating procedures (SOPs) owing to physical distance requirements. However, the situation was expected to bounce back in 2021 onwards.

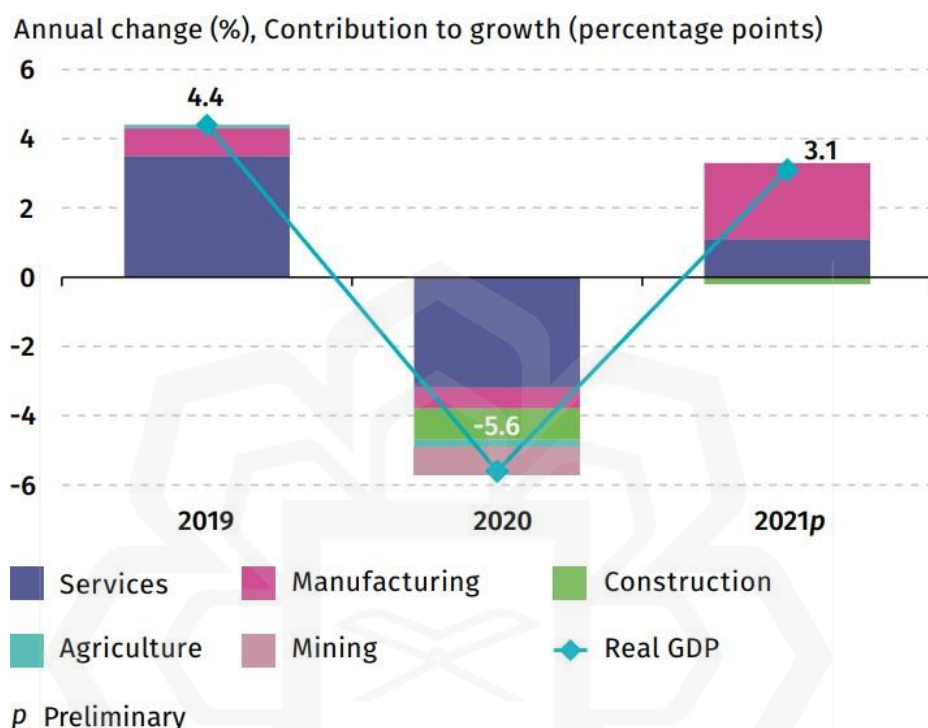


Figure 2.2 Economic Sectors' Real GDP
Source: BNM (2021)

2.4 THE MALAYSIAN BANKING SYSTEM

As indicated in Table 2.1, the Malaysian banking system consists of several types of banks. The first one is commercial bank, which offers financial services to the general businesses and public, guaranteeing economic and social stability as well as long-term economic progress. The second one is Islamic bank, where the principal role is to encourage trade operations as an active engagement with the economy's surplus and deficit units, and its secondary role is to provide agency services and other market-compatible goods to its customers via Shariáh compliant contracts, instruments, and products.

The third one is international Islamic bank, where an Islamic financial organization, which seek to perform the full range of IB operations in non-ringgit

foreign currency transactions can apply for an international IB license. The fourth one is investment bank, serving as a link between major corporations and investors, advising firms and governments on how to address financial difficulties and the best ways to obtain cash, whether through stock offerings, derivative products, or bond issuance. Banking institutions are connected through a network of more than 50 institutions spread across the country. The banking system is controlled by BNM, which has supervisory authority under the Central Bank of Malaysia Act 2009, as well as the Financial Services Act (FSA) 2013 and IFSA 2013.

To develop and promote critical economic sectors such as manufacturing and export, small and medium enterprises (SMEs), infrastructure, agricultural, and marine sectors, 6 development finance institutions (DFIs) are established (Yunus, 2012). These DFIs work in tandem with banks to provide a range of financial and non-financial services to aid in the growth of important industries. It's also worth noting that the Malaysian banking sector is a dual banking industry, with conventional and IB systems coexisting and operating side by side (Bacha, 2004). Hence, to avoid the possibility of regulatory arbitrage, the regulations for both conventional and Islamic banks are generally harmonised.

Table 2.1 Type of Banking Institutions in Malaysia and Their Roles

Type of Banking Institutions	Role
Commercial Banks	Commercial banks' main function is to offer financial services to the general businesses and public, guaranteeing economic and social stability as well as long-term economic progress. In this regard, credit creation is the most important role of commercial banks.
Investment Banks	Investment banks serve as a link between major corporations and investors, advising firms and governments on how to address financial difficulties and the best ways to obtain cash, whether through stock offerings, derivative products, or bond issuance.
Islamic Banks	The Islamic bank's principal role is to encourage trade operations as an active engagement with the economy's surplus and deficit units, and its secondary role is to provide agency services and other market-compatible goods to its customers via <i>Shari'ah</i> -compliant contracts, instruments, and products.
International Islamic Banks	Under the IB Act 1983, financial organizations seeking to perform the full range of IB operations in non-ringgit foreign currency transactions can apply for an international IB license.

Source: Malaysia International Islamic Financial Sector (MIFC) Report (2022)

As of 2021, there are a total of 26 commercial banks, 11 investment banks, 16 Islamic banks, and 1 international Islamic bank in Malaysia as depicted in Table 2.2.

Table 2.2 List of the Banking Institutions in Malaysia

Conventional Commercial Banks	Investment Banks	Islamic Banks
1. Affin Bank Berhad	1. Affin Hwang Investment Bank Berhad	1. Affin Islamic Bank Berhad
2. Alliance Bank Malaysia Berhad	2. Alliance Investment Bank Berhad	2. Al Rajhi Banking & Investment Corporation (Malaysia) Berhad
3. AmBank (M) Berhad	3. AmInvestment Bank Berhad	3. Alliance Islamic Bank Berhad
4. BNP Paribas Malaysia Berhad	4. CIMB Investment Bank Berhad	4. AmBank Islamic Berhad
5. Bangkok Bank Berhad	5. Hong Leong Investment Bank Berhad	5. Bank Islam Malaysia Berhad
6. Bank of America Malaysia Berhad	6. KAF Investment Bank Berhad	6. Bank Muamalat Malaysia Berhad
7. Bank of China (Malaysia) Berhad	7. Kenanga Investment Bank Berhad	7. CIMB Islamic Bank Berhad
8. China Construction Bank (Malaysia) Berhad	8. MIDF Amanah Investment Bank Berhad	8. HSBC Amanah Malaysia Berhad
9. CIMB Bank Berhad	9. Maybank Investment Bank Berhad	9. Hong Leong Islamic Bank Berhad
10. Citibank Berhad	10. Public Investment Bank Berhad	10. Kuwait Finance House (Malaysia) Berhad
11. Deutsche Bank (Malaysia) Berhad	RHB Investment Bank Berhad	11. Maybank Islamic Berhad
12. HSBC Bank Malaysia Berhad		12. MBSB Bank Berhad
13. Hong Leong Bank Berhad		13. OCBC Al-Amin Bank Berhad
14. India International Bank (Malaysia) Berhad		14. Public Islamic Bank Berhad
15. Industrial and Commercial Bank of China (Malaysia) Berhad		15. RHB Islamic Bank Berhad
16. J.P. Morgan Chase Bank Berhad		Standard Chartered Saadiq Berhad International Islamic Banks 1. PT. Bank Syariah Muamalat Indonesia, Tbk
17. Malayan Banking Berhad (Maybank)		
18. Mizuho Bank (Malaysia) Berhad		
19. MUFG Bank (Malaysia) Berhad		
20. OCBC Bank (Malaysia) Berhad		
21. Public Bank Berhad		
22. RHB Bank Berhad		
23. Standard Chartered Bank Malaysia Berhad		
24. Sumitomo Mitsui Banking Corporation Malaysia Berhad		
25. The Bank of Nova Scotia Berhad		
United Overseas Bank (Malaysia) Bhd.		

Source: BNM (2022)

2.4.1 The Dual Banking System

Malaysia is one of the nations that has implemented a dual banking system, in which a fully functional IB system coexists with a fully functional conventional banking system. The two banking systems share a common set of financial infrastructures, and Islamic banks have a propensity to duplicate the issuance of products and services that are offered in the conventional banking system. As a result, the conventional and IB systems grow at the same time (Bacha, 2004).

In comparison to a single IB system, Malaysia's form of dual banking offers several advantages. First, the variety of IB goods and services in a dual banking system tends to be wider. In the climate of the competitive market of the dual banking system, Islamic banks cannot afford to remain complacent. Customers will not be able to switch from one IB system to another, thus there will be no equivalent incentive for Islamic banks in a single IB system paradigm. Furthermore, the dual banking system's IB products and services are typically anticipated to be more sophisticated. Because the conventional banking system often has more depth and innovations, Islamic banks that are operating within a dual banking system will naturally develop similar products of comparable sophistication to meet the consumer demand.

2.4.2 The Importance of Investment Account

The use of *IA* in Malaysia might be a game changer for Malaysia's IB path due to its detachment from conventional banking system products and deviation from the previously described “replication principle”. *IA* is a profit-sharing investment product that is established on a profit-sharing contract (Maybank, 2016). In this case, Islamic bank will be the fund manager, while consumer or investor will be the fund provider. The fund will be invested in Shariah-compliant asset classes, and any profit earned will be divided between the fund provider and manager according to a pre-determined profit-sharing ratio. BNM (2014) states that *IA* can be formed by utilising three underlying Shariah contracts, which are *Wakalah*, *Mudharabah*, and *Musyarakah*.

Restricted Investment Account (RIA) and Unrestricted Investment Account (URIA) are generally the two forms of *IA* that are prevalent in the Islamic banks'

balance sheets. In RIA, the investor gives the Islamic bank a specific investment mandate that includes the purpose, asset class, economic sector, and investment period. Meanwhile in URIA, the investor gives the Islamic bank the authority to make the final investment decision without specifying any specific restrictions or conditions. According to the Association of Islamic Banking Institution Malaysia (AIBIM) (2015), even though *IA* may be customised to fit a wide variety of consumer demands and preferences, they do not have a principal guarantee by Perbadanan Insurans Deposit Malaysia (PIDM), which is in line with its nature as an investment rather than a deposit product.

As a result, *IA* may be built with a variety of risk and return profiles that change depending on the underlying assets' attributes. The fund that is raised for these accounts can be used for a variety of purposes, including debt-based financing, equity-based financing, and funding to viable enterprises that meet a broader set of credit requirements that are in line with the *IA*'s risk-absorbing characteristics. The funds can be directed to a specific asset, such as trade finance to a single exporter, or assets' portfolio such as financing for SMEs. In conclusion, *IA* is the new instrument that banks may use to mobilise funds from consumers, as opposed to traditional term deposit arrangements that are connected to OPR movement.



Figure 2.3 Key Features of Investment Account
Source: AIBIM (2015)

IA used to be another form of mainstream deposit that replicates the risk and return profile of a traditional deposit product but with the establishment of IFSA 2013, distinctions are drawn between the two. According to BNM (2014), the IFSA's explicit separation of investment and deposit products is said to pave the way for IA's rapid expansion as a unique *Shari'ah*-compliant asset class and a source of capital for the Islamic banks. Consumers with a larger risk appetite will be able to invest their excess cash in the IA and can keep their money for longer periods of time and receive higher returns, but with more stringent withdrawal restrictions unlike Islamic deposits, which may be withdrawn on demand and are insured by PIDM. Figure 2.4 as shown below depicts the total number of Islamic deposit and IA in 2019 and 2020, where it can be seen that they are both having an increasing trend from 2019 to 2020, and IA accounts for around 11.12% of the total Islamic deposit.



Figure 2.4 Total Islamic Deposit and Investment Accounts in 2019 and 2020
Source: BNM (2020)

2.5 ISLAMIC CAPITAL MARKET

The ICM is different from the mainstream capital market in terms of the principles of Islam, where the market activities are free from the prohibited elements and activities such as usury (*riba*), gambling (*maysir*) and ambiguity (*gharar*). Moreover, the growing of the wealth of Muslims worldwide, who are actively involved in both business and corporate activities lead to the growing of demand for and awareness of investing that is in line with the Islamic principles on a global scale, which then lead to a prosperous Islamic capital market. Just like the banking system, Malaysia adopts a dual capital market system, where the mainstream capital market is operating side by side with the ICM. The Malaysian ICM can be divided into several sectors, which are sukuk, Islamic equity, and Islamic unit trust fund market.

With the establishment of various international Islamic organizations to study and promote this alternative market, the pace of the Islamic financial market development is undeniably has gathered a momentum. Some examples of the organizations are IIFM, Islamic Financial Services Board (IFSB), and AAOIFI. Currently, the Islamic financial market is providing investors with an alternative investment's perspective or philosophy that is swiftly getting recognition. Besides, the fact that the Islamic financial market allows and welcomes the non-Muslims participation is creating limitless upside to the breadth and depth of this market. Moreover, it also complements the role of the IB system in constructing a comprehensive and thorough Islamic financial market system in Malaysia. According to the State of the Global Islamic Economy Report (2020) and Herzi (n.d.), Malaysia has been known as the pioneer and leader in IF industry for the consecutive 6 years, and currently, Malaysia has far surpassed the other Muslim countries in terms of the market infrastructures with a persistent support from the government, which motivates the development of the local ICM.

In paving the path to lead ICM, Malaysia has introduced numerous 'firsts' and key milestones (Bursa Malaysia, 2005) such as the development of Arab Malaysian Tabung Ittikal in 1993, which is the first Islamic equity unit trust fund in 1993, the formation of Bank Islam Malaysia Berhad (BIMB) Securities in 1994, which is the first full-fledged Islamic stockbroking company, the establishment of Securities Commission, which forms an ICM Unit which later develops into a full-fledged division in 1995. Then, the *Shari'ah* Advisory Council (SAC) was formed in the year 1996. Besides, the Capital Market Master plan had been launched by the Minister of Finance of which 13 recommendations are articulated, which develops Malaysia as a global centre for ICM activities as well as introduces the Guthrie *Sukuk* (first global corporate *Sukuk*), which had caused a paradigm shift in the global Islamic financial market in 2001. Moreover, Malaysia also had established the Malaysian Government *Sukuk*, which is the first global sovereign *Sukuk* in 2002.

In addition, the government of Malaysia is promoting and developing actively the Financial Centre of Labuan International Offshore to be the ICM global centre. Under the 2004 Federal Budget, a detailed tax incentive package for the Islamic securities that is parallel to the conventional securities was proposed and has since been

executed. Furthermore, in 2007, a mutual recognition agreement had been signed between Dubai financial services authority (DFSA) and Securities Commission, in which the agreement open an opportunity for Islamic funds' marketing and distribution between Dubai and Malaysia.

Furthermore, the first floating *Shari'ah*-compliant exchange traded fund (ETF) in Asia is developed in 2008, and later in 2010, Bursa Suq Al-Sila was established, where it is known as the first platform of commodity trading to speed up the Islamic banks' liquidity management and financing. Besides, Malaysia is known as the first Islamic country to have demutualized its stock exchange, which was recognized as Bursa Malaysia, and it was listed on 18 March 2005. Furthermore, it symbolizes a single merged group that is comprises of derivatives, equities, and offshore markets. The equities market is divided into the Main Board, Second Board and also a high growth market, which is called Malaysian Exchange of Securities Dealing and Automated Quotation (MESDAQ).

Currently, an authoritative organization is needed to explain and give guidance on what is and is not allowable in the ICM in accordance with the Islamic law as the market becomes more complex and more new instruments are developed. Besides, to enable the system to operate efficiently, it is vital that this organization has good infrastructures. In line with the core thrust of ICM products, which is to comply with the Islamic principles, the *Shari'ah* Advisory Council was launched in 1996 mainly to counsel the Securities Commission on the *Shariah*-related issues as well as to give *Shari'ah* guidance on the activities and transactions of ICM, aiming to harmonize and standardize applications.

Finally, the Labuan Offshore Financial Services Authority (LOFSA) was also established by the Malaysian Government to develop and promote Labuan to be the International Business & Financial Centre (IBFC). For more than a decade, Labuan has been a home for various global financial activities and an offshore centre. Furthermore, the Labuan International Financial Exchange (LFX), which is a fully owned subsidiary of Bursa Malaysia, was introduced in 2000 to provide trading facilities and listing for a broad range of non- financial and financial products and Islamic financial products.

2.6 TAKAFUL INDUSTRY

In the history of human civilization, the concept of insurance is not a new phenomenon because it had been existing since the era of Babylon in Mesopotamia, with the main aims of protecting real estate, private property, family affairs, and also commercial activities. The concept of Islamic insurance, which is known as Takaful is also not new as it had been practiced by the people that live during the times of Prophet Muhammad (peace be upon him) based on the concept of *Aqilah* that involves mutual assistance. Islamic countries, together with the other countries that have a significant Muslim population had encouraged the financial services provision, which includes insurance, which is known as Takaful under the Islamic principles, starting from the 1970s and progressively in the 1990s. Takaful was first introduced in Sudan in 1979, which is motivated by the increasing needs of the Muslim customers for an insurance protection that obeys the Islamic law.

In Malaysia, the development of the first Takaful operator took place in 1985, where it is stimulated by the Muslims' needs for a *Shari'ah*-compliant insurance due to several prohibitions in Islam relating to the conventional insurance. According to Sharifuddin et al. (2016), the Malaysian National fatwa committee has issued a fatwa that states that the conventional insurance is prohibited (*haram*) because of the existence of uncertainty (*gharar*), gambling (*maysir*), and interest (*riba*). Furthermore, the government had established a special task force in 1982 to examine the practicality of establishing an Islamic insurance company. In addition, the Takaful Act 1984 and the first Takaful operator are incorporated in Malaysia following the recommendations of the task force. Figure 2.5 as shown below shows the chronology of the Takaful industry development in Malaysia.

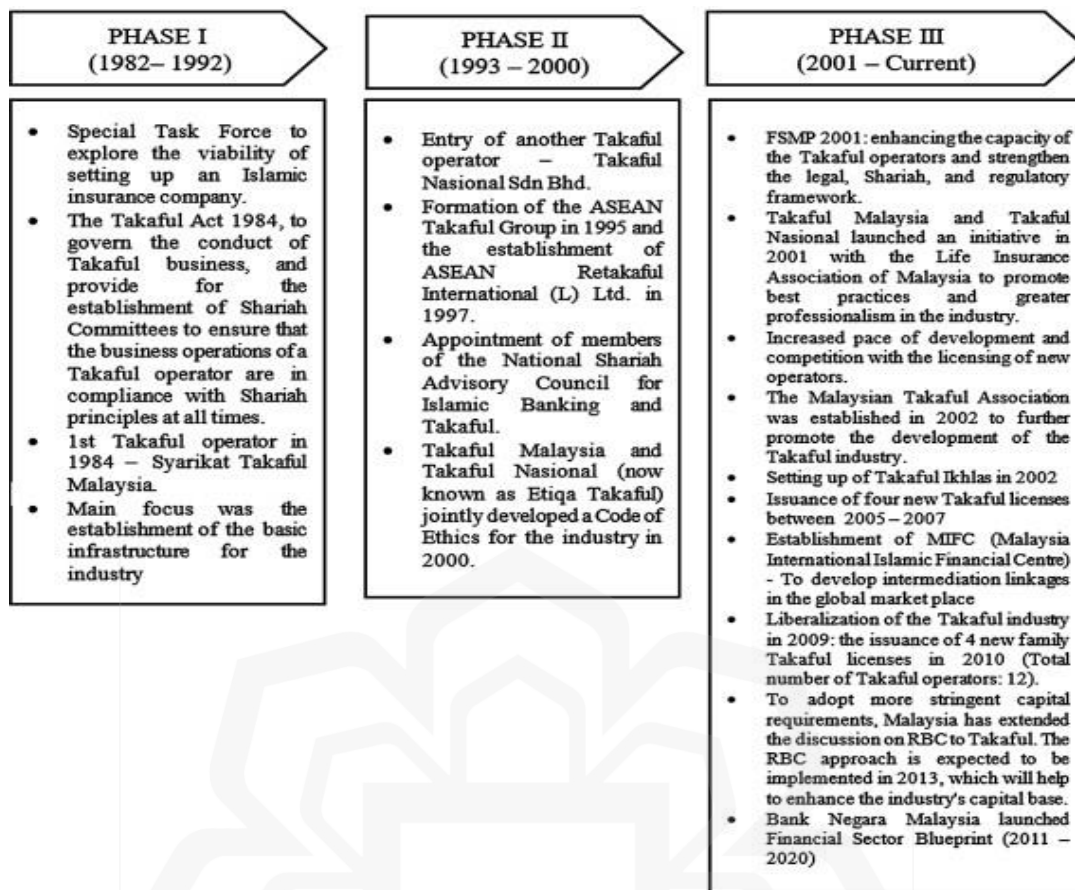


Figure 2.5 Chronology of Takaful Industry Development in Malaysia
Source: Eldaia et al. (2020)

According to Eldaia et al., (2020), BNM has adopted a gradual approach in developing the takaful industry in Malaysia, which can be divided into three phases as shown in Figure

2.1. In phase I, which was held from 1984 – 1992, a special task force was formed to explore the viability of setting up a Takaful company, and Takaful Act 1984 was instituted to govern Takaful activities and provide *Shari'ah* committees to ensure that the operations are in line with the *Shari'ah* principles. As a result, the first Takaful operator, which is Syarikat Takaful Malaysia Berhad was established in 1984. The establishment of the basic infrastructure for the Takaful industry is the main focus during this period.

Phase II, which was held from 1993-2000, observed a bigger cooperation amongst the takaful operators when Association of Southeast Asian Nations (ASEAN) Takaful Group was established in 1995 and ASEAN Re-Takaful International (L) Ltd.

was formed in 1997, which then had facilitated Re-Takaful arrangements amongst the Takaful operators in Malaysia, Singapore, Indonesia, and Brunei. Furthermore, the second Takaful operator, which is Takaful Nasional Sdn. Bhd. was established in 1993, followed by a Code of Ethics that was developed jointly by Takaful Malaysia and Takaful Nasional in 2000. Besides, the members of the National *Shari'ah* Advisory Council for IB and Takaful were appointed in this phase.

Phase III, which was held from 2001 – current, marked the formation of the FSMP in 2001 to strengthen the legal, regulatory, and *Shari'ah* frameworks and to enhance the capacity of the takaful operators. To promote best practices and greater professionalism in the industry, both Takaful Malaysia and Takaful Nasional had launched Life Insurance Association of Malaysia in 2001. To further promote the Takaful industry development, Malaysian Takaful Association and Takaful Ikhlas were established in 2002. Furthermore, license was issued to four new Takaful operators between 2005 – 2007, which further increases the pace of competition and development in the industry. To develop the intermediation linkages in the global marketplace, Malaysia International Islamic Financial Centre (MIFC) was launched in 2006, followed by the Takaful industry liberalization in 2009, the issuance of 4 new family Takaful licenses in 2010, and the implementation of Risk-Based Capital Framework for Takaful operators in 2013. Currently, BNM has launched Financial Sector Blueprint for the period of 2011-2020.

Table 2.3 Licensed Takaful and Re-Takaful Operators in Malaysia

No	Name	Ownership
Takaful Operators		
1	AIA PUBLIC Takaful Berhad	F
2	AmMetLife Takaful Berhad	L
3	Etika Family Takaful Berhad	L
4	Etika General Takaful Berhad	L
5	FWD Takaful Berhad	L
6	Great Eastern Takaful Berhad	F
7	Hong Leong MSIG Takaful Berhad	L
8	Prudential BSN Takaful Berhad	L
9	Sun Life Malaysia Takaful Berhad	L
10	Syarikat Takaful Malaysia Am Berhad	L
11	Syarikat Takaful Malaysia Keluarga Berhad	L
12	Takaful Ikhlas Family Berhad	L
13	Takaful Ikhlas General Berhad	L
14	Zurich General Takaful Malaysia Berhad	F

15	Zurich Takaful Malaysia Berhad	F
Re-Takaful Operators		
1	ACR Re-takaful Berhad	F
2	Malaysian Reinsurance Berhad	L
3	Munchener Ruckversicherungs-Gesellschaft (Munich Re Re-takaful)	F
4	Swiss Reinsurance Company Ltd. (Swiss Re Re- takaful)	F

Notes: (L) is local, and (F) is foreign.

Source: BNM (2022)

According to BNM (2022), in Malaysia, there are currently 15 Takaful operators, which are AIA Public Takaful Berhad, AmMetLife Takaful Berhad, Etiqa Family Takaful Berhad, Etiqa General Takaful Berhad, FWD Takaful Berhad, Great Eastern Takaful Berhad, Hong Leong MSIG Takaful Berhad, Prudential BSN Takaful Berhad, Sun Life Malaysia Takaful Berhad, Syarikat Takaful Malaysia Am Berhad, Syarikat Takaful Malaysia Keluarga Berhad, Takaful Ikhlas Family Berhad, Takaful Ikhlas General Berhad, Zurich General Takaful Malaysia Berhad, and Zurich Takaful Malaysia Berhad, and 4 Re-Takaful operators, which are ACR Re-Takaful Berhad, Malaysian Reinsurance Berhad, Munich Re Re-Takaful, and Swiss Re Re-Takaful as shown in Table 2.4. Amongst the 15 Takaful operators, 11 are local and 4 are foreign, while amongst the 4 Re-Takaful operators, 4 are foreign and 1 is local.

Re-Takaful is re-insurance that is based on Islamic principles that functions as the main tool for minimizing risks amongst the Takaful operators. Unlike in conventional re-insurance, re-Takaful is not a risk taker, but it is a risk manager. Basically, re-Takaful involves two parties; 1) Takaful operator, which aims to minimize the financial burden of the insured risk, and 2) Re-Takaful operator, which serves to take on some of the risk that the Takaful operator has transferred. Maasum (2007) specified three objectives of re-Takaful; 1) To protect the operators from the issue of insolvency, 2) To provide a flexible underwriting practice amongst the operators, and 3) To forbid interest in the re-Takaful reserves.

2.7 THE ISLAMIC FINANCIAL SERVICES ACT (IFSA) 2013

IFSA 2013 takes effect on June 30, 2013, replacing and repealing two legislations, which were Islamic Banking Act (IBA) 1983, and Takaful Act 1984. To promote financial stability and *Shari'ah* compliance, as well as other related, consequential,

or incidental matters, this law regulates and supervises Islamic financial institutions, payment systems, and other relevant entities, as well as oversees the Islamic money market and Islamic foreign exchange market. IFSA 2013 was enacted in tandem with the FSA 2017. The introduction of a new Part IV of the IFSA to strengthen *Shari'ah* governance that will ensure Islamic financial institutions adhere to end-to-end *Shari'ah* compliance regarding their policies, procedures, and operations, as shown in Figure 2.6 below is a key difference between these two legislations.

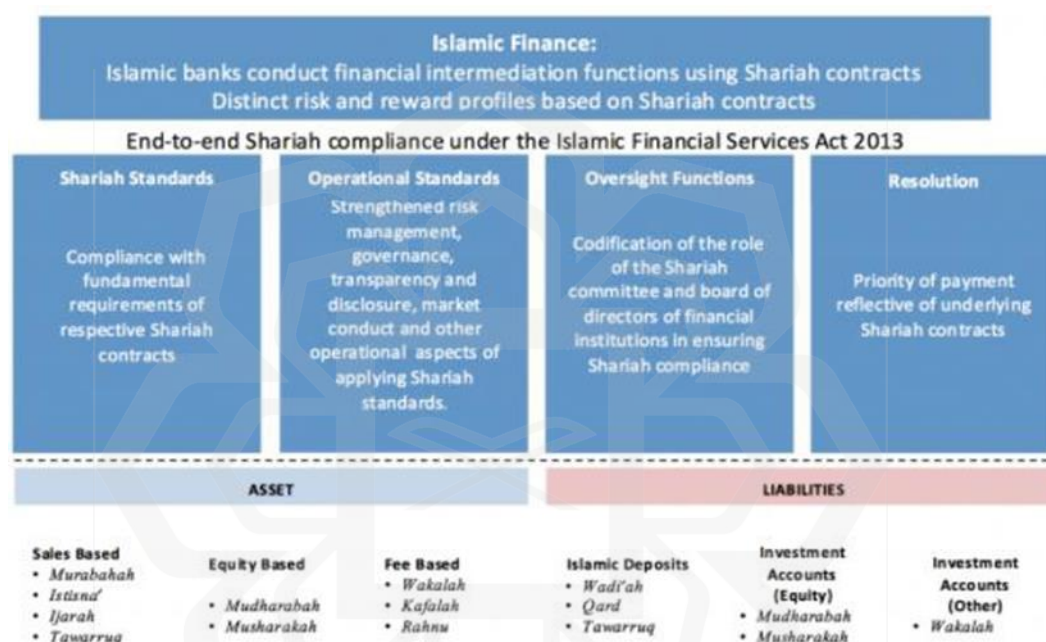


Figure 2.6 The Framework of IFSA 2013
Source: INCEIF (2021)

Islamic banks are required to reclassify their Islamic deposits under the *IBA* into Islamic deposits and investment accounts under the IFSA as all monies that are accepted from customers are classified as Islamic deposits under the repealed *IBA* 1983, regardless of whether they are genuine deposits or investment products. A two-year transition time was granted to Islamic banks until June 30, 2015, in order to ensure a smooth and successful reclassification procedure. During this transition time, Islamic banks were able to connect with their clients by giving information and clarity on the distinctions between Islamic deposit and investment accounts, as well as choices to keep their deposits in Islamic deposit or move to investment accounts. At the same time, they were also able to make required adjustments to their systems and supporting

applications in order to assure operational preparedness.

Another change that is resulting from the introduction of IFSA 2013 is the shift from *Wadiah*-based products to *Qard*-based products. Many Islamic banks in Malaysia provide current and savings accounts' deposit products based on *Wadiah Yad Dhamanah* contract, which is equivalent to *Qard* in terms of risk and return. BNM had released the document of Shariah policy for *Qard* in August 2016 to offer clarity and to standardise the practise of using the *Qard* contract. The most important feature in the document is that the banks are required to update all *Wadiah*-based products to *Qard*-based products and completely comply with the policy document's criteria no later by 31st July 2018 (BNM, 2018). The way Islamic bank's function is expected to change as a result of this transformation. For instance, customers that open *Qard*-based account will no longer be eligible for certain incentives such as reward points, prizes, and gifts due to a limitation in the BNM policy document that bans any type of incentive based on a binding promise, which is in line with the *Qard* contract's underlying nature. On the other hand, IFSA 2013 also had replaced Takaful Act 1984, and several changes in the Takaful industry had been made as follows:

1. The definition of Takaful has been updated. It is defined as a mutual assistance between Takaful participants to contribute a certain amount of premiums based on the existence of pre-agreed events.
2. The definition of the participants risk fund has been included in the Takaful definition.
3. Beneficiaries have been included as the 'Takaful benefits' recipients in the event of pre- agreed events.
4. A Takaful operator that has a composite license needs to distinguish Family and General Takaful businesses.
5. Regulators have the right to specify the minimum capital requirement to set up a Takaful business.
6. Takaful operators are required to establish a financial holding company.
7. *Shari'ah* Governance Framework has been set up.
8. In the case of a disagreement between the interests of Takaful Participants and the Shareholders, the Board of Directors of a licensed Takaful Operator should prioritize the interests of Takaful Participants.

9. The *Shari'ah* Advisory Council has introduced the concept of Takaful's permissible interest.
10. The definition of Proper Claimant has been updated.
11. The manner of Takaful benefits' payment has been thoroughly explained.
12. The role of BNM have been expanded.

Last but not least, IFSA 2013 does not repeal Capital Markets and Services Act 2007 (CMSA) but further supports the act in governing ICM in Malaysia via ensuring the stability and soundness of Islamic foreign exchange market, Islamic money market and also Islamic financial institutions in general as stated in the Part X of IFSA 2013. In general, IFSA 2013 incorporates consumerism dimension and strict liability as compared to the previous legislations.

2.8 THE LANDSCAPE OF ISLAMIC ECONOMY IN MALAYSIA

Islamic economy refers to a country that practices economic activities in accordance with *Shari'ah* law, in which the system aims to establish institutions in the community sector, as well as through state's modus operandi to promote social justice and economic development (Amrin et al., 2023). The ethical demands of Muslims, as inspired by their faith, serve as the foundation of the Islamic economy. They have accepted the ideas and ideals based on Islamic principles as a "way of life" that touches all segments, which include finance and banking, education, fashion, tourism, food and beverages and infrastructures, with values that have universal appeals such as family values, just and equitable financing, modesty and social responsibilities (State of the Global Islamic Economy Report, 2022). Muslim consumers worldwide drive a cohesive US\$2 trillion opportunity across a range of lifestyle products and services, despite their cultural and geographic diversity.

According to Kamali (2007), the objective of *Shari'ah* is to protect and benefit the mankind as stated in the Quran that "Allah has not sent the Prophet (saw) except to be a mercy to the worlds" (Quran 21:107), and this objective can be achieved by the implementation of *Maqasid Shari'ah*. He then defines *Maqasid Shari'ah* according to Al-Ghazali's definition, in which it can be classified into three categories: essential (*Daururiyyah*), complementary (*Hajjah*), and desirable (*Tahsiniyyah*), and the most important categories to be protected is the essential category, which involves the

protection of life, faith, intellect, property, and lineage, and if these five classifications are being ignored, then it will create chaos in the society.

The State of the Global Islamic Economy Report (2022) has classified activities in an Islamic economy into six sectors, and they are IF, halal pharmaceuticals/cosmetics, Muslim-friendly travel, halal food, media/recreation, modest fashion. IF is a major component of the Islamic economy, which includes IB, ICM, Islamic insurance and trust (*waqf*) and also non-financial institutions. Currently, the Global Islamic Economy Indicator (GIEI) is established to provide an inclusive portrait of nations that are presently best positioned to address the multi-trillion-dollar Islamic economy opportunity globally, and also to rank the top national ecosystems in terms of their ability to support the growth of the economic activities in the Islamic economy. Figure 2.7 and Figure 2.8 as shown below depicts the GIEI indicator score rank for top 15 countries by sector. Malaysia continues to lead the overall GIEI rankings with 290.2 points for the eight consecutive years, followed by Saudi Arabia with 155.1 points, and United Arab Emirates with 133 points.

In addition, Malaysia also tops in 4 out of 6 sectors in the Islamic economy, namely IF, Muslim-friendly travel, halal pharmaceuticals and cosmetics, as well as halal food sectors. Malaysia has also presented continuous growth across all sectors, with export of pharmaceuticals, food, and media and recreation products to Organisation of Islamic Cooperation (OIC) countries is increasing due to the governance credentials and strong awareness. Malaysia has become a global leader in IF sector for 9 consecutive years (State of Global Islamic Economy Report, 2022). It plans to further enhance the sector by sending graduates of IF abroad to help building the industry globally, particularly in non-Muslim majority countries, which have grown an interest in IB and finance areas. According to Alam and Ibrahim (2017), the objective of Islamic economics has been manifested in the execution of IF. Therefore, it is not a big surprise that the sector has been receiving the most attention since the 1970s.



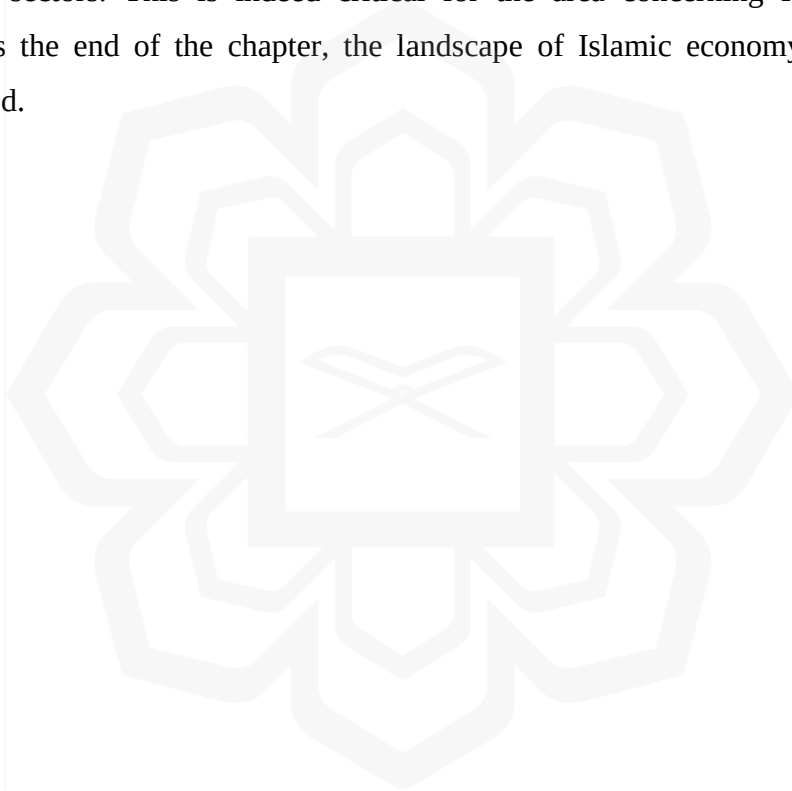
Figure 2.7 GIEI Indicator Score Rank by Sector
Source: State of Global Islamic Economy Report (2022)

Country	GIEI	Halal Food	Islamic Finance	Muslim-Friendly Travel	Modest Fashion	Pharma & Cosmetics	Media & Recreation
1. Malaysia	290.2	209.8	389.0	98.3	43.7	80.2	59.9
2. Saudi Arabia	155.1	51.1	234.2	36.8	22.1	33.4	34.7
3. UAE	133.0	104.4	142.5	78.3	235.6	72.1	125.3
4. Indonesia	91.2	71.5	111.6	45.3	57.9	47.5	43.6
5. Jordan	88.1	39.6	124.6	43.3	18.5	39.1	31.6
6. Bahrain	86.9	42.2	121.9	31.9	16.7	33.5	42.3
7. Kuwait	73.3	42.2	99.2	27.1	17.5	33.3	40.8
8. Pakistan	70.9	54.7	91.1	23.6	30.6	32.5	12.9
9. Iran	64.0	60.5	74.0	28.8	33.5	55.9	26.6
10. Qatar	63.1	44.3	80.1	36.7	20.3	32.1	40.2
11. Oman	60.0	47.1	73.4	33.2	28.7	33.5	35.3
12. Turkey	55.9	70.7	49.9	62.7	75.1	43.3	34.6
13. Nigeria	53.1	20.7	76.6	14.1	19.8	21.6	16.7
14. Sri Lanka	49.2	27.3	66.6	13.3	26.2	20.1	18.4
15. Singapore	47.4	125.2	16.9	42.6	30.6	62.9	46.8

Figure 2.8 Top 15 Ranking Countries' Indicator Score Breakdown
Source: State of Global Islamic Economy Report (2022)

2.9 CONCLUSION

This chapter details the background of the banking sector, *IA*, Islamic capital market, Takaful industry, IFSA 2013 and Islamic economy landscape in Malaysia. One of the main aspects of the discussion is the structure of the banking system in Malaysia, especially on the existence of dual banking system, where conventional and Islamic banks operate in parallel. In the context of a dual banking system, the importance of *IA* is discussed where latest statistic shows that it comprises around 11.12% of total Islamic deposit in 2020. There is also a discussion on how IFSA 2013 has effectively shaped up a new landscape on the Malaysian Islamic financial sector, which include ICM and Takaful sectors. This is indeed critical for the area concerning IF-growth nexus. Towards the end of the chapter, the landscape of Islamic economy in Malaysia is discussed.



CHAPTER THREE

LITERATURE REVIEW

3.1 INTRODUCTION

In the literature, the positive contribution acted by the financial development on the growth of the economy is still an extremely debatable subject. They who do not trust the presence of the positive role of the financial development argued that the monetary and financial systems do not have a long-run relationship with the economic growth, plus they also argued that the financial development is not a determining factor of growth and as a matter of fact, it follows rather than leads the economic growth. Robert Lucas (1988) for instance, argued that “financial matters” do not have any contribution to the economic growth, and the subject, however, is being “over-stressed” in the literature. Similarly, Joan Robinson (1954) asserted that the supply of finance moves with the demand for it, which leads to the assertion that finance follows economic growth: “by and large, it seems to be the case that where enterprise leads, finance follows” (Robinson, p. 86). According to Robinson’s view, the demand for financial services is caused by economic growth, in other words, financial development is a consequence of economic growth with causality link between the two is running from growth to finance.

On the contrary, they who do support the view that the financial development is affecting the economic growth positively, argued that the financial system manages to reallocate resources to the most valuable projects, which will in turn generate more profits, and enhance the economic growth. This view is recently supported by numerous empirical evidence, which shows that finance does matter and affect the economic growth positively (see King and Levine, 1993).

Chapter 3 of this study reviews the literature on the finance-growth nexus as well as IF-growth nexus. It is apportioned into two main sections, where the first section will review the theoretical works that have been done on Islamic economics and finance by reviewing the of the Islamic economics background, the key issues in the Islamic financial system, the two groups on Islamic financial system critics, and the theories of finance-growth nexus, while the second section will review the empirical evidence

concerning the causality between IF and economic growth.

3.2 THEORETICAL LITERATURE

3.2.1 Background of Islamic Economics

Islam is deep-rooted from *Tawhid*, which is complete adherence to God's will and surrender to the way of life according to His revelation. This foundation, which Islam and all monotheistic religions share, leads logically to the conclusion that everything in life has a spiritual component. There is no aspect of life that can be compartmentalized into a religiously or morally neutral category. Islam is a way of life and a worldview, not merely a belief in the existence of God (Abbasi et al., 1989).

This view is based on the Qur'anic teachings, which are an unbroken synthesis of morality, law, and religious doctrine. This was not the new religion's afterthought, rather, it was integral to it. What differentiates Islamic thought from the other religions is that the jump from individual obedience to the society transformation is automatic (Mills and Presley, 1999).

In Islam, there are no concepts of "mosque" and "state" as specifically religious and political institutions. Religion and state are believed to be fused together; the state is conceived as the embodiment of religion, and religion as the essence of the state. (Baldwin, 1990, p. 34).

Islamic economic theory is severely impacted by the automatic support of theocracy. In the most evident way, Islamic law takes on a major role as a regulator of economic institutions. It is quite explicit in what it forbids (such as hoarding) and what it permits in terms of economic behaviour (e.g. the division of inheritances). Therefore, according to the conservative academics, "Islamization" refers to the incorporation of these rules into the law as well as the development of economic and social policy that follows their tenets (in those areas where *Shari'ah* is not specified). Instead of inventing (innovating) using personal ethical principles, the task of the Islamic economist is to investigate and clarify how *Shari'ah* is applied to the economic system (Ahmad, 1980).

Naqvi stated (1981) that Islamic social studies is founded on the organization of spiritual and moral concepts, where human satisfaction is more important than materials or luxuries. They are assessed against the principles of the Qu'ran and will directly affect the punishment or reward of the hereafter. According to Qureshi (1979), this “carrot-and-stick” strategy, that is characterized by both the threat of punishment and the offer of reward is needed to ensure widespread adherence of religious principles in this life. It is also thought to be supportive for the smooth operation of an Islamic economy as it encourages cooperative behaviour without the use of expensive enforcement mechanisms. (Bashir, 1990). Besides, the belief in religious judgement also offers paternalistic argument for limiting economic activities according to the principles of *Shari'ah*. Although a broad freedom of contract is acknowledged, restrictions are encouraged to prevent people from jeopardizing their prospects of entering paradise.

These characteristics make it relatively easy to frame a hypothetical Islamic model society. Islam, like other theocratic ethical systems, is less confident about what to do if individuals defy Islamic moral norms, but it can diagnose what is currently wrong and depict the “ideal” society. The appraisal of governmental actions and legal changes necessary to change the current institutions and behavioural patterns in Muslim countries into ones that adhere to Islamic values falls under the purview of Islamic economics. Its job is to create connections between “is” and “ought” (Siddiqi, 1971). There is a lot of room for disagreement and improvement because Islamic law offers limited explanation on such practical issues.

3.2.1.1 The Specific Details of Shari'ah

The Islamic economic paradigm also outlines certain institutional frameworks and guidelines for personal behaviour that must be followed for an economy to be referred to as “Islamic”. Property ownership for instance, has several impositions. In addition to protect property from loss or destruction, it is necessary to increase one's wealth or property holdings. The latter is thought to benefit the society as well as the property owner. People can benefit from their wealth, but they need to refrain from usury, excessive spending, hoarding, or other negative behaviours, such gambling, alcoholism, or drug addiction.

Furthermore, *zakat*, or wealth tax is imposed on people who meet the requirements. It is intended to “purify” their money from its allegedly natural propensity to become more concentrated in fewer hands during the accumulation process (Abdeen and Shook, 1984). All marketable assets that have been in one’s possession for more than a year and exceed certain criteria are subject to an annual tax rate of 2.5%. The revenues are to be used, among others, to free debtors, support religious causes, and assist the impoverished. Islamic scholars assert that since *zakat* is imposed on all wealth, including cash holdings, whether invested or not, it also serves the added goal of punishing hoarding. They firmly believe that such tax would raise the amount of wealth retained as productive capital and discourage money hoarding when risk- free return-bearing assets were eliminated as a result of the removal of interest (Mannan, 1968 and Choudhury, 1986).

Islamic law forbids transactions that include a certain element of uncertainty (*gharar*) in their contract terms, in addition to interest (*riba*). The Qur’an outlaws gambling, and legal opinion developed the idea to encompass any contracts with unclear countervalues as part of the prohibition (for instances, the sale of fruit before it has ripened). Saleh (1986) stated that the ban of *gharar*, when applied to contemporary financial contracts, eliminates options, futures, and some life assurance contracts, preventing one party from being disadvantaged in the future and limit speculation.

3.2.1.2 The Islamic Economic System - Achieving Different Objectives

Any financial system’s effectiveness is largely dependent on its capacity to assist society to achieve the generally recognized economic goals. The acknowledged economic goals of the West and those of an authentically Islamic economy initially appear to have little in common. Any economy must be driven by a desire for social and economic fairness as its fundamental principle. The key issues are then to define individual’s macroeconomic goals and the methods to achieve the goals.

Chapra (1985) mentioned that the main macroeconomic goals of an Islamic economic system include to provide full employment, to achieve the best possible rate of economic growth, and to maintain a stable money value. He added that Islamic economic emphasized on the accomplishment of socioeconomic justice and an equal

distribution of income and wealth, including what Islamic economists refer to as a just return to all society members from economic development. It also gives a top priority to maximize the dominant welfare's need for the whole Islamic community. In this perspective, it is important to consider how the entire Islamic policies may alleviate suffering and enhance social welfare.

In certain capitalist economies, the pursuit of economic growth may include a redistribution of income and wealth in favour of those who are better off, with short-term welfare sacrifices made by the lower income groups. Islam would find this reprehensible. In an Islamic economy, full employment should be provided not just to meet everyone's fundamental requirements but also to give them dignity in the community. Only a broadly based improvement in economic well-being can result in acceptable economic growth. If it is

accomplished through creating "non-essential" commodities or by causing moral or environmental harm, it is not permitted in Islam (Chapra, 1985). Hence, both type of good and the possible social costs related to economic growth have historically received far more attention. In light of this, it seems that the Islamic economics' goals have several different focuses. Additionally, the Islamic paradigm does not render the Islamic economics to be protected from the issues that the West faces; difficulties will still arise while trying to concurrently achieve all macroeconomic goals.

Socioeconomic fairness for all individuals is ultimately what the Islamic economic system seeks to achieve. The definition of this idea has remained obscure. Whether or not it is accomplished will depend on whether the individuals uphold the responsibilities related to property and adhere to the principles of *Tawhid* and "brotherhood". These determine how the individual, via his or her relationship with God, interacts with other people. Although social justice appears to encourage economic cooperation, it does not include equality; rather, it just calls for equality of opportunity for all who are able to work and the obligation to assist everyone in the society who is willing to supply the work force. To examine Chapra's academic view on the Islamic economic system, this study explores IF in the perspective of Islamic economics empirically, to observe whether IF is fulfilling the macroeconomic goals via research objective 3 from the perspective of the industrialist.

3.2.2 Key Issues in the Islamic Financial System

In this section, the three most well-known key issues in the Islamic financial system, which are policy, interest (*riba*) and debt are discussed.

3.2.2.1 The Need for a Good Policy

For the past three decades, policies to support better regulation have significantly impacted public governance across the nations (Organisation for Economic Co-operation and Development (OECD), 2010). After all, together with fiscal and monetary policy, regulation is one of the three main levers of state power, which plays a crucial role in determining the welfare of economies and society. As nations recover from crises, there is an increase in demand to improve regulatory frameworks in order to prevent future financial instability. Never before has it been more crucial to strike the appropriate balance between cost and benefit, and between risk and reward. Ineffective regulation will impede development, hinder efforts to handle complicated problems like climate change, and increase the public's scepticism of government, and to shape the welfare of economies and society, regulation is very crucial (Malyshev, 2015). Malyshev (2015) added that ensuring regulations to be efficient in serving the public interest is the major goal of a regulatory policy.

Understanding the costs of faulty regulation in economic, social, and ultimately political sectors is very crucial to arrive at a good regulation policy. A bad regulation policy is frequently chosen as the simple solution because it is much simpler to implement compared to the good regulation, and it will typically encounter less political resistance, and besides being frequently rewarded with public acclaim, as concrete evidence that government is “doing something” (OECD, 2010). Policymakers must be constantly reminded of these costs. Regulatory policy is also crucial for coordinating short- and long-term interests and guaranteeing shared benefits norms. In his remarks at the 2010 OECD Conference, Vincent Van Quicken borne, the Belgium's Minister of Economics and Reform has said:

“Human rules, that leave room for responsibility and awareness of citizens and companies, are probably the best rules we can imagine”

In addition, Gunter Thielen, the Chairman of the Board, Bertelsmann Stiftung, Germany has mentioned that:

“New regulatory frameworks must reduce the burden on the economy and on infrastructure investment, but the precautionary principle cannot be left behind. The challenge for Brazil in fostering sustainable growth is solving that dilemma – the equilibrium between short- and long-term interests, reconciling the need for green growth and for environmental protection with the challenges to build infrastructure for future growth”

From the perspective of the people, regulatory policy is very crucial so that their voices can be heard, consultation and open comment can be made, and there will be more transparency. On the other hand, from the perspective of businesses, regulatory policy is very crucial so that an understanding of the life cycle of businesses can be attained, a competitive and business-friendly environment can be created, and more simple rules for businesses can be developed. Viola Groebner, the Directorate General of Enterprise and Industry, and the Director of Industry Policy and Economic Analysis, European Commission mentioned in OECD Conference 2010 that to be able to make timely strategic adjustments in the regulatory policy for the benefit of all, study on the complex and multifaceted relationship between regulatory management and economic performance is necessary. Hence, research objectives 1 and 2 of this study explores the effect of one the Malaysian financial regulatory policy, which is IFSA 2013 on the real economic growth.

3.2.2.2 Debt Finance – Inefficient Allocator of Finance

The “first-best” distribution of loanable money is feasible in a hypothetical economy where markets and knowledge are comprehensive. Funding would be provided for any investment projects whose returns surpass the current market rate of interest. More projects become possible as a result of falling interest rates and an increase in the supply of loanable cash. The first-best allocation involves the financing on projects with the highest profit expected once risk is introduced. Financial intermediaries play a crucial role in this type of economy by transferring and concentrating resources from people who have wealth allocations but no feasible projects to entrepreneurs and businesses

who have projects with the highest predicted returns (Goldsmith, 1969). The process promotes economic growth.

However, Goldsmith (1969) argued that the possibility of such a result under a debt- financed economic system might be questioned for a variety of reasons. They center on the characteristics of a typical debt contract, such as a non-contingent return (interest), the need for collateral, and comprehensive monitoring only in stages of insolvency. Each of these factors supports the idea that debt financing is unable to get close to the first-best allocation.

First, he further argued that lenders will be inclined towards funding risky projects with highest expected profit since they do not receive profit share from borrowers with successful projects but may incur losses when financing unsuccessful ones. In reality, lenders rarely bet even if it may be in their best interests socially to do so since they tend to protect themselves from losses. Therefore, after considering risk, banks prefer to finance projects with the most consistent cash flow rather than those with the highest predicted profits. The result significantly deviates from the first-best allocation.

Second, debt financing creates a predetermined interest pattern and amortization of liabilities into the future. By disciplining the borrower to guarantee that there is enough cash flow accessible during interim times, the cost of monitoring can be reduced. However, Webb (1993) mentioned that lenders favour projects with early and steady cash flows as they add to the procyclicality of bank lending. These initiatives do not necessarily have the biggest net present value, either. Therefore, when equity financing is not available, debt financing might contribute to the selection of “short-termist” projects (Jacobs, 1991).

Thirdly, Siddiqi (1983) mentioned that the need for collateral as a standard precondition for funding assures that financing is given to projects with the best security rather than those with the highest predicted profits. Lenders who receive little direct compensation for approving risky, lucrative projects will respond rationally in this way. Additionally, the entrepreneurs with extremely promising project concepts but insufficient collateralizable wealth would be denied access to financing on acceptable terms. As a result, debt financing frequently strengthens the existing producers’ market positions by eliminating competitors who might have more potential (Galbraith, 1975).

Last but not least, Stiglitz (1985) stated that the collateral and non-contingent returns ensure the lenders to have little intention to monitor debtors' behaviour after bankruptcy or to discriminate against unproductive loan applications. The capital cost may decrease as a result, but the allocation and utilization of loanable funds may not be as effective. Banks, for instance, are not required to favour lending for purposes that seem to have little societal value (such as consumer credit or speculation), so long as there is a high probability that debt service payments will be made (Ahmed, 1947). Furthermore, the bank has little need to make sure the borrowers maximize their profits. Due to the bank's chances for specializing in the necessary skills and careful monitoring on the borrower behaviour, financial intermediaries should be a significant source of management guidance and knowledge. This does not happen automatically as lenders are not directly rewarded by the usual debt contract for assuring the effective use of the money borrowed resources. Therefore, conventional banks prefer to become a creditor rather than a partner (Anwar, 1987). It is paradoxical that debt financing is intended to reduce monitoring expenses, yet that inadequate monitoring might still happen.

3.2.2.3 The Effects of Debt-Financing on Developing Countries

The boom and collapse in sovereign lending by Western commercial banks to developing countries (DCs) from the mid-1970s may be the most evident contemporary example of the misallocation of loanable money attributed to interest-based financing. Despite thorough study, few have realised that the absurdity of providing finance capital to DCs through interest-bearing loans rather than contracts with contingent profits is the actual core cause of the mess.

The crises' initial causes are well understood (Congdon, 1988). During the time when real interest rates were low or negative and commodity prices were rising quickly, banks lent large petro-dollar loans to the DCs. Early in the 1980s, the increase of global interest rates, together with the collapse of terms of trade of the indebted DCs contribute to the spike in the debt's effective real interest rates (Eichengreen and Portes, 1987). Most DCs have been obliged to drastically expand exports and commit to strict International Monetary Fund (IMF) "structural adjustment programmes" to sustain the repayment of debt and to be qualified for multilateral agency loans. According to George (1988), the

consequences included a widespread environmental degradation as debtor nations have struggled to produce cash crops for export, a net transfer of resources from developing to developed countries despite aid and additional loans, and a significant reduction in the real incomes of many of the world's poorest populations in order to pay for loans from which they received little benefit. Millions of lives have been lost as a result, and millions more's health and education have been negatively impacted (Jolly, 1989).

Accountability for this disaster must be shared. Commercial banks made sizable loans at low-risk premiums while paying little attention to the probability of changing economic environments, the purposes for which the loans were used, or the lending practises of other banks that added to the systemic risk. The DC governments were in charge of policing how borrowed money was used to pay governmental deficits, capital flight, the importation of luxury goods and weapons, and "white elephant" development projects. However, the fact that such errors were essentially feasible may be attributed to the fact that the cost of borrowed money is unrelated to the profitability of its utilisation. Because the real cost of financing was artificially low, borrowers were persuaded to take on too much. Having stipulated a realistic profit-related return, loan demand would have been prudently restrained. However, excessive borrowing also,

The result of lenders, because of fixed interest charges, not seeing themselves as fully sharing the risks of project failure and therefore not devoting sufficient energy to assessing risk. Had the banking system been more rigorous in its approach to risk assessment and taken much more responsibility in terms of an efficient and profitable utilisation of funds, many of the current problems of international debt may well have been avoided. (Presley, 1988, p. 61)

Therefore, non-interest financial intermediation should have restricted funding to those projects with a reasonable hope of producing a realisable return, and allocated funds in a far more careful and effective manner. Then, the borrowing economies would not have been forced to make unaffordable servicing payments if the projects had failed.

Therefore, it is not surprising that debt-equity swaps, despite their risks and disadvantages, have been proposed as a means of connecting the cost of capital to the DC borrowers' ability to pay. It is therefore not unexpected that the Western governments had to provide financial support and insurance for the global banking

system in order for it to survive the crisis, causing enormous damage to the population, the environment, and the global economy. Commercial bankers are able to acknowledge past errors with hindsight. The 1930s national debt crisis had taught valuable lessons, but sadly they had been forgotten:

The requirement for economic international loan transactions should be that the loan proceeds be used in a way that increases the country's national income and transfer capacity by an amount that is at least equal to the loan's entire service over the course of its currency. The most basic components for applying this criterion are missing when the revenues are used for non-profit endeavours, and it seems likely that the world will benefit rather than suffer if changes in financial organisation make it more difficult to get such loans. (Loveday, 1933, p. 418)

Hence, this study is also exploring the debt-financing that is practiced by IF in Malaysia. Views and opinion from the experts on this issue are collected via research objective 3.

3.2.3 Two Groups of Islamic Financial System Critics

According to Imon (2018), in order to understand the apparent problem of the IB and financial system, particularly in Malaysia, there is a need to understand two groups of critics who are central to the development of the system. The first group who are concerned about the recent performance shortcomings in the IB are referred to as “mainstreamists”, while the second group who are concerned about a deviation from conventional banking (CB) norms, are labelled as “structuralists”.

3.2.3.1 Mainstreamists: Conventional Emulation

The word "mainstreamists" refers to the group who favour conventional banking procedures (Imon, 2018). As long as they do not conflict with the *Shari'ah* compliance laws, supporters generally hold that the best method to build IB is to adopt financial techniques and frameworks created by the existing established, mainstream conventional finance system, notably the banking industry. The term “mainstream

banking” is also used to refer to the common banking system used by English-speaking nations such as the United States (US), Canada, the United Kingdom (UK), New Zealand, and Australia. The US banking system was the first to have a transition from the classical or universal banking model to the modern commercial banks. Mainstreamists often criticize the problems that make it difficult for IB to successfully compete with their conventional equivalents. Therefore, mainstreamists, for instance, would promote product creation that adheres to established banking trends and financial engineering. As a result, it has been claimed that the IB is copying the CB. Mainstreamists, however, see the CB’s targeting of the same markets as the IB as a good competition that will help the IB to grow. Therefore, Bakar (2016) asserted that as long as the *Shari’ah*-compliance are fulfilled to protect the Islamic ethical standards, it is fine for the IB to model their designs according to the CB model.

Imon (2018) added that the best way to understand the mainstreamists’ concepts is through the work of two prominent IB practitioners. Dato’ Dr. Abdul Halim bin Haji Ismail is the first individual to have the title of “Father of the IB” due to his contributions to the foundation and growth of IB (Dusuki, 2007). He was also a former Managing Director of BIMB from 1983–1994, who pioneered the organizational development and operational processes of the IB and was named as the recipient of the 2014 IF Royal Award. He served as a member of the SAC of the BNM from 1997 to 2013. Ismail has steadfastly maintained that the key difference between the IB and CB lies in the former's contracts being in line with *Shari’ah*-compliance procedures, in spite of critics pointing to the IB’s core model to be skewed to the CB practices. Therefore, as long as IB contracts are drafted by Muslim scholars who are suitably competent in Islamic jurisprudence, the similarities between the two banking systems have not much impact. Hence, if there is *Shari’ah* conformity, IB may lawfully pursue objectives comparable to those of the CB. Regarding the IB’s social responsibility, Ismail stated in two separate interviews that the organization could support social development by providing fund-management services for the social welfare sector (the *Awqaf* sector), where the IB coordinates and directs donations towards profitable investments on behalf of the contributors. According to Ismail, *Shari’ah*-compliance is the overarching basis for IB growth, however other social goals may be willingly adopted by the IB institutions in the future.

Datuk Dr. Mohammad Daud Bakar, who is presently the head of the SAC is the second practitioner. Besides starting his own financial consulting firm, Bakar is a member of the Securities Commission's SAC, Bahrain's AAOIFI, and a number of other well-known groups in South Africa, the US, and New York (Dow Jones Islamic Market Index). Bakar is crucial to the IB's strategic growth. Like Ismail, Bakar used adherence to *Shari'ah* as a guiding principle for IB growth. He made an effort to refute the opinions of Muslim economists in his insightful book *Shari'ah Minds of IF* (Bakar, 2016). Bakar asserted that Muslim economists pose a danger to the IB because of their "purist" views on how CB should achieve socioeconomic development goals. His point of view is based on the notion that IB should not establish a long-term competitive strategy based on profit and loss (PLS)-based financial models. He gave several explanations for this, citing the fact that Islamic commercial banks are the fundamental institutions that need to be prioritized. Direct engagement in firm ownership arrangements will increase operational costs, create an information asymmetry that favours the bank, and limit the ability to offer these services on a large scale due to capital adequacy levels (Bakar, 2016). In a nutshell, Bakar's fundamental claim is that PLS financing methods are not practical to support IB over the long term. Bakar has often emphasized that he is not against the PLS as a concept. The IB must only use it as alternative option, which is concentrating on development due to its practical limitations.

Both of these well-known individuals who have contributed to the development of the IB framework assert that practicality appears to be the primary reason for mainstreamists' opposition to structural change and their allegiance to traditional banking processes. In the Malaysian banking sector, the term "Islamic" is exclusively limited to the procedural measures used to achieve *Shari'ah* compliance, in this case, to the *fiqhi*/contractual parts of the *Shari'ah*. Going beyond this constrained definition of *Shari'ah* compliance is frequently seen as being excessively zealous (or excessively purist, as Bakar puts it) on the part of Muslim economists, who, in their noble attempt to perfect IB, will actually cause the eventual disenfranchisement of certain stakeholder-groups, such as shareholders whose investments are essential to the survival and health of the financial and real economy. In other words, mainstreamists are in favour of the establishment of IB within the boundaries of the present IB structure, provided that the *Shari'ah*-compliance requirements are adhered.

In summary, mainstreamists are mostly practitioners who favour to imitate mainstream techniques to the IB framework. Mainstreamists have a tendency to be realists because of their experiences in the industry, and they would prefer to create the IB using traditional banking techniques than try out a novel corporate governance system that has no track record. Due to the IB's recent sluggish development, current records sadly show that this technique is not without its drawbacks.

3.2.3.2 Structuralists: Islamic Finance Innovation

According to Imon (2018), the second group is referred to as “structuralists”. This is due to structuralists’ preference for the IB to alter structurally in accordance with the normative values that it was initially (but hypothetically) formed upon. The opinions of Islamic economists, who contended that banks must be viewed as a component of a society’s economic system and as such must go beyond the legal features of contracts, are shared by many structuralists (Imon, 2018). Ariff (2014) briefly summarized structuralists’ viewpoint when he writes: “Real sector connectivity and risk-sharing distinguish IB from CB.” In other words, structuralists anticipate that the IB will be true to its distinctive character. They thus demand that the IB to take a more active role in the real sector and encourage equity-participation, while also anticipating that it will downplay competition in the debt-finance sub-sector. Structuralists contended that by staying faithful to its fundamental principles, the IB is able to uphold both a norm of socioeconomic fairness and justice among the many contracting parties (for instance, through risk- and profit-sharing mechanisms and through real sector activities that can generate economic growth). In this regard, structuralists anticipate that IB will play a different function than the traditional financial sector. As a result, it is not unexpected that structuralists have expressed concern over IB growth showing CB-like patterns.

Structuralism frequently views two separate patterns as proof that CB techniques have affected IB. The first pattern is that although equity-based financing was first used to philosophically justify IB, it has evolved with a bias for debt-based financing methods. Structuralism interprets IB’s debt-based inclinations as the industry’s preference for risk- sharing strategies similar to CB’s risk-sharing strategies. The second pattern provides empirical proof that the IB’s rate of return calculation is dependent on

the base lending rate, where according to Ariff (2014), it permitted interest to enter the system through a backdoor. Because of these two patterns, structuralists have come to assume that IB is evolving in a way that is not just at odds with IB ideals but also akin to CB values.

Furthermore, structuralists contended that IB trends to imitate CB are less likely to be coincidental. Ariff (2014), for instance, hypothesized that a functional link exists based on IB's existing preference for debt-based financing. He contended that, in IB, subsidiary IB oversees financial product engineering and overall competitive strategy. He claimed that this has two effects. First, subsidiary IB is probably going to join the same industries that the parent firms join. Second, given that subsidiary IB outnumbers full-fledged IB by a wide margin, full-fledged IB is likely to do the same. As a result, it is anticipated that IB will grow in line with CB trends.

Mirakhor (2010) forwarded a functional-relationship theory between IB and CB in a similar vein. He contended that due to CB practises' impact, IB innovators today concentrate their efforts on creating short-term, low-risk, and highly liquid items or adopt a "short-termist" mindset. IB can gain knowledge and familiarity with that market spectrum through sustained short-termism to the point that it becomes dependent on it. As a result of IB's concern with short-termism, financial progress becomes uneven. Financial development continued along this spectrum, and the goal of financial engineering shifted from true innovation—targeting the longer-term spectrum of the financial market—to "spanning"—creating several financial products based on a single financial concept or product (Mirakhor, 2010). The process through which IB is becoming dependent on the same markets as CB has been appropriately described by Mirakhor as "path-dependency" (Mirakhor, 2010). He contended that path-dependency results from a sustained dependence on short-termism rather than on early short-termism. This results in capital formation, institutional development, and infrastructure growth, all of which cause IB development to become entrenched in the short-term financial market spectrum. He noted that this eventually causes conventional norms and ideas to become entrenched in IB, i.e. "short-termism, safety and liquidity is all there is to IF." (Mirakhor, 2010:23-24).

The viewpoint of structuralists may be summed up as critics who disagree with

mainstreamists because they think that by imitating the CB, IB values become more deeply ingrained in CB values due to path-dependency. Instead, structuralists advocate for a structural change in the IB so that risk-sharing and equity-based financing may produce higher real-sector value addition and better socioeconomic results. Table 3.1 below provides an overview of the different perspectives between the two groups.

Table 3.1 Mainstreamists vs. Structuralists

	Mainstreamist	Structuralist
Standard for Islamic Values Adherence	(<i>Shari'ah</i> -compliance) Formal Validity - Focus on legal aspects (<i>fiqhi</i>) of the contracts	(<i>Shari'ah</i> -based) Purpose validity – Focus on ethical outcomes' discussion and purpose
Strategy of Preferred Development	CB Model Emulation – Development within the current IB framework	Based on the objectives of Islamic economics – Structural development of the current framework
IB's Primary Concern	IB is not developed enough to compete against CB	IB is not developed structurally to achieve the Islamic objectives
Underdevelopment's Main Reason	Emphasis on PLS modes	Emphasis on debt-based financing
Consequences in the Long-Run	Incompetence against CB and low value of shareholder	Contradicting Islamic values (i.e., debt-based, interest-based and no real sector value), unstable (i.e. short-termism and risk shifting), less innovation and path dependency
Accountability	Shareholder	Stakeholder
Objectives of the Socioeconomic	Attained separately via many initiatives like Corporate Social Responsibility (CSR)	Deep-rooted in IB framework

Source: Imon (2018).

3.2.4 Theories of Finance-Growth Nexus

In the literature, the growth theory argues that, in essence, economic growth relies on the input factors accumulation in the technical advancement and production activities. It also highlights the significant role of interest rates in equilibrating an economy's savings and investment. Nevertheless, some theories of growth do not specifically discuss the link between financial development and economic growth. Furthermore, the study of Bagehot (1873) titled "A Lombard Street: A Description of the Money Market" is the first work to include financial market into the economy. Furthermore, Yilmazkuday (2011) has traced several notable classic studies of the finance-growth

nexus, among others, Hildebrand (1864), Schumpeter (1911), and Sombart (1916, 1927). In particular, the empirical research on the nexus between the financial sector and economic growth have been developed into a significant amount since the work of Schumpeter (1911).

Schumpeter (1911) in Yilmazkuday (2011) has disputed that a successful economic development depends upon the presence of a special motivated class, which is directly concerned with the accumulation and innovation process, namely the commercial or entrepreneurial group. Additionally, he attempts to relate the monetary and real aspects of the growth by introducing the banking system as an integral part of the economic evolution. Schumpeter (1911) has also argued that financial intermediary services are fundamental catalysts, which support the innovation of the technology and growth in the economy. In more detail, the arrangements in finance can change the incentives and limitations that are faced by the economic agents, thus stimulate the saving mobilizations, investment decisions as well as risks management, which essentially support the innovation in the technology, and hence, boost the long-run growth rates.

Financial systems have an important role of directing the funds from the surplus side to those who have shortage of funds among the institutional units such as the households, corporations or firms and government, and provides facilities such as system of payments to give financings to profitable projects (Mishkin and Eakins, 2011). Furthermore, Levine (2004) summarized five general functions that are provided by the financial system as follows:

1. Providing ex-ante information on the possible allocation and capital investments,
2. Managing investment activities and implementing corporate governance once the loans or credits have been given out,
3. Facilitating trading activities and risks management as well as diversification,
4. Merging or pooling and mobilizing the savings, and lastly,
5. Facilitating goods and services exchange.

These five general roles can be used to estimate the capacity of a financial system

to facilitate savings and investments decisions as well as to drive the economic transformation process and to improve the standards of living. Financial system is considered as established or developed when financial institutions, their instruments and services can decrease the consequences of asymmetric information, transaction costs, and enforcement in performing their functions as a financial services provider.

As an analytical framework, this study will use existing theory of the finance-growth relationship, where the most important researchers that contribute a lot to this theory are Schumpeter (1912), Goldsmith (1969), McKinnon (1973), Shaw (1973), and King and Levine (1993). They view the services provided by financial systems as very crucial to both savers and entrepreneurs. They assert that the fundamental factor behind successful innovation and long-run economic growth is the financial sector. However, not all economists have hypothesized that the growth of financial organizations and markets will contribute to the growth of the economy, and this includes Robinson (1952) and Lucas (1988) for instances. Pradhan et al. (2017) mentions that earlier studies fail to provide conclusive or decisive evidence because there are always distinct findings and results between the research in that area.

Furthermore, to get a better understanding on the role of financial systems towards the economic growth, Levine (1997) has promoted a functional method, which emphasizes on the connections between the economic growth and the service quality that is delivered by the financial systems, which includes allocating capital, aiding risk trading, mobilizing savings, monitoring superiors as well as facilitating good, services, and financial contracts trading. Moreover, theory has long advocated the significance of financial institutions, instruments, and markets in justifying the impacts of information and business costs. In the nonexistence of financial institutions and markets, when the individual savers acquire substantial information and business costs, they will attempt to invest in profitable investments. Consequently, the financial institutions and markets will develop to reduce these costs as mentioned by Diamond and Dybvig (1983) and Bhattacharya and Thakor (1993). Diagrammatically, Levine (1997) illustrates the relationship between finance and growth as the following:

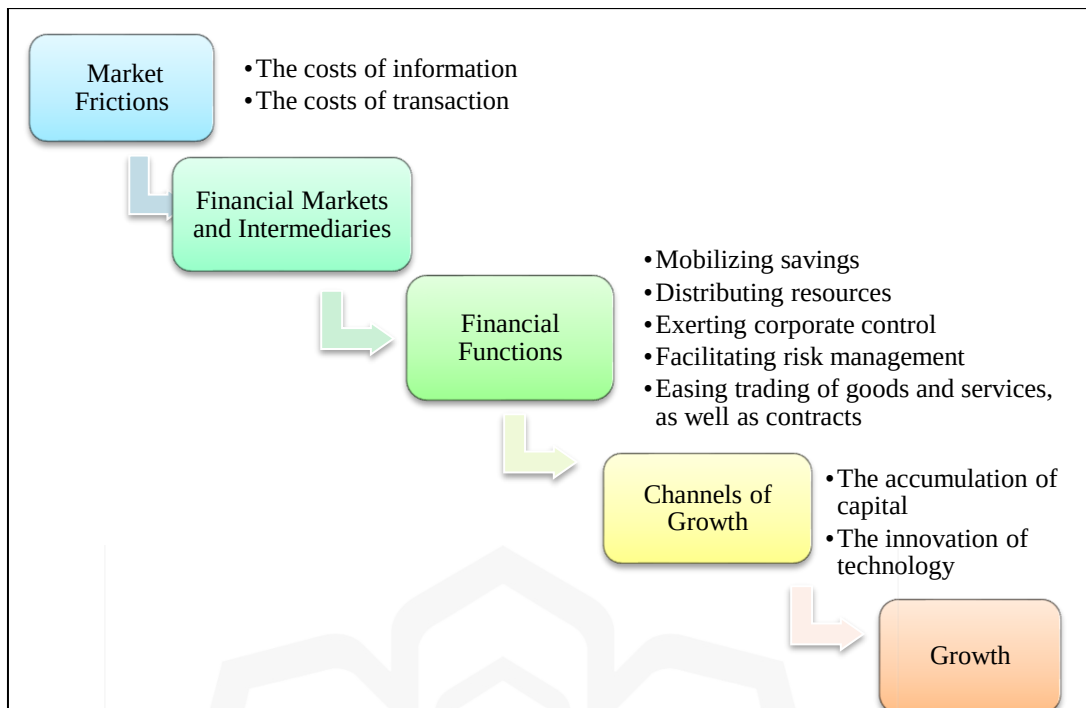


Figure 3.1 Finance-Growth Nexus
Source: (Levine, 1997)

As summarized in Figure 3.1, the economic growth according to Levine (1997) is said to be influenced by the financial system positively because it becomes the medium to channel the funds, which are deposited by the savers to run the most profitable investment projects. Nevertheless, the belief that saving is somehow suddenly transformed into a fruitful investment is very unrealistic because the financial sector has a very difficult task to mitigate information and transaction costs.

3.3 EMPIRICAL LITERATURES

3.3.1 Quantitative Literature

3.3.1.1 Financial Development and Economic Growth

The finance-growth nexus has been one of the most intense prevalent topics, predominantly in the conventional finance's areas of study. It can be traced far back during the influential writing of Bagehot (1873) in which finance is proved to affect the

real economic activity positively as the money market development has facilitated the capital flow to successful transactions in England during that time. Furthermore, Schumpeter (1911, 1934) also has proposed that financial intermediaries especially the banks, have become a vital part in the economic development. Later, McKinnon's (1973) and Shaw's (1973) financial repression hypotheses have proved these opinions theoretically. Subsequently, further insights have been provided by the introduction of endogenous growth models and has become the foundation for the empirical studies on finance-growth nexus, which are also supported by the studies from King and Levine (1993), Rajan and Zingales (1998), Levine and Zervos (1998), and Hassan et al. (2011).

To get a better understanding on the role of financial systems towards the economic growth, Levine (1997) has promoted a functional method, which emphasizes on the connections between the economic growth and the service quality that is delivered by the financial systems, which includes allocating capital, aiding risk trading, mobilizing savings, monitoring superiors as well as facilitating good, services, and financial contracts trading. Moreover, theory has long advocated the significance of financial institutions, instruments, and markets in justifying the impacts of information and business costs. In the nonexistence of financial institutions and markets, when the individual savers acquire substantial information and business costs, they will attempt to invest in profitable investments. Consequently, the financial institutions and markets will develop to reduce these costs as mentioned by Diamond and Dybvig (1983) and Bhattacharya and Thakor (1993). The economic growth according to Levine (1997) is said to be influenced by the financial system positively because it becomes the medium to channel the funds, which are deposited by the savers to run the most profitable investment projects. Nevertheless, the belief that saving is somehow suddenly transformed into a fruitful investment is very unrealistic because the financial sector has a very difficult task to mitigate information and transaction costs.

Furthermore, there are also empirical studies which aim to determine the stock market- growth nexus. The studies on this area have been initiated by Atje and Jovanovic (1993) with their investigation on the effect of both banking sectors and stock markets on the economic growth. They discovered that stock markets affect positively on economic activities, but not for bank lending based on their observations over the period of 1960-1985 for 94 countries with OLS analysis. Besides that, by applying the

OLS method of estimation for the period of 1960-1989 to a sample of 49 countries, Levine and Zervos (1998) also has examined the effects of banking sectors and stock markets on the economic growth. They found that the stock market liquidity is positively significant to the current and future economic growth rates, productivity growth, and capital accumulation, but its volatility, integration, and size are not strongly correlated with the economic growth. Besides that, it is also shown that the initial levels of both banking sector development and stock market liquidity can foresee the future rates of economic growth, productivity growth, and capital accumulation.

Economists remain divided on the nature of the link between the finance-growth relationship despite the abundant literatures on the area. Subsequently, four major hypotheses have arisen on this issue based on the previous researchers. The first one is the supply-leading hypothesis, which is embedded in the Schumpeter views, and later is supported by Shaw (1973) and McKinnon (1973), where it is believed that the financial development leads to the economic growth. The second one is the demand-following hypothesis, which is initiated by Robinson (1952), where it is believed that growth in the real economy leads to financial development. The third one is the mutual dependence hypothesis, which is advanced by Patrick (1966), where it is believed that the causality between financial development and economic growth is reciprocal, and it is argued that in under-developed countries, financial development leads to economic growth, whereas in highly developed economies, economic growth leads to financial development. The last one is the neutrality hypothesis, which is established by Lucas (1988), where it is believed that the finance-growth nexus is unnecessarily over-stressed as it is not necessarily an important factor in the growth process.

3.3.1.2 Islamic Finance and Economic Growth

In Islamic financial system, the profit-sharing principle is considered as its major distinctive characteristic that assists it to exceptionally affects the economic growth positively in the country as it nurtures equity in the distribution of wealth and income, which will then lead to social justice and consequently, contributes to the economic growth in the long run. Besides that, since the return to capital highly depends on its productivity in IF, the capital allocation will become more effective. Furthermore,

according to Goaid & Sassi (2010), IF is anticipated to become more stable compared to its conventional counterpart due to the less emphasis on the debt financing, but a strong emphasis on the investments, and therefore, the harm on wealth and capital, which is usually happened because of the regular financial crises and its negative influences on the process of growth are evaded, then the economic growth will become more sustainable. Kassim (2016) and Gani and Bahari (2021) suggested that Islamic finance contributes to economic growth through investment activities by using funds from various Islamic financial institutions, which include Islamic banks.

Amongst the theoretical literatures that explore the possibilities of IF to positively affect the economic growth is done by Nagaoka (2011), where he discovered that the monetary sector is embedded into the real sector in the Islamic financial sector, and therefore, it is known as embedded financial system, a universal financial system, which is considered as a significant potential of a sustainable development. In conclusion, the study inferred that there is a close link between Islamic financial system and the real economy, which contributes more effectively to the economic development compared to their conventional counterpart due to the unique features of Islamic financial products. Similarly, Khoutem and Nedra (2012) proved that the Islamic participative financial intermediation can contribute positively towards the economic growth by solving ex-ante and ex-post asymmetric information problems based on profit and loss sharing principle. Besides that, it also encourages risk sharing and lessens transaction costs, which will then lead to the saving-investment optimization.

Moreover, the studies done by Zarrouk et al. (2017) have shown that the growth in the United Arab Emirates (UAE), which is proxied by the real GDP, affects the Islamic financial development with no opposite effect, and the forecasting results of the study also show that the past relationship, in which it is shown that the financial development positively affects the real economic activity, has been a representation for the future. This finding will likely continue to encourage the IF development. Besides that, Chowdhury et al. (2018) also discovered that there is a positive linkage between Islamic financing principles and economic growth in Bangladesh, where it is found that that the instruments of risk sharing are positively linked to the economic growth, whereas the instruments of non-risk sharing are negatively linked to the economic growth. In addition, the studies led by Furqani and Mulyany (2009), Abdul Manap et al. (2012),

Abduh and Omar (2012), Abduh et al. (2012) and Yusof and Bahlous (2013) have proved that IB and finance positively affects the economic growth both in short- and long-run.

According to Kassim (2015), the above studies may have a statistical bias due to the omitted variables issues. For instances, the notion that economic growth, which is proxied by GDP, to be determined either by gross fixed capital formation or Islamic financing only is somewhat restraining in the statistical sense because the external sector is also an important factor in determining growth particularly for a small-open economy as practiced by Malaysia, where the external trades are believed to highly influence the real economic activities. Furthermore, inflation is also likely to affect both Islamic financial sector development and the real economic activities. Therefore, it is important to focus on this statistical bias by examining the impacts of IF on the real sector economy, while controlling the other determining variables for growth such as inflation, government expenditure, and trade openness. Ullah et al. (2020), Gwadabe and Ab Rahman (2020), Anwar et al. (2020), Juhro et al. (2020), Mensi et al. (2020), Alafif and Shaheen (2021), Ali (2021), Siddiqui (2021), Hassan et al. (2021), Benbekhti and Bouteldja (2021), Zahid and Arshad (2021), Tan and Shafi (2021), Gani and Bahari (2021), Arsyianti and Kassim (2021), and Naz and Gulzar (2022) are amongst the current studies that found a positive link between IF and economic growth.

On the other hand, Goaied and Sassi (2010) empirically has investigated the nexus between banking sector and economic growth using generalized method of moment (GMM) on an unbalanced panel data for 16 countries in the Middle East and North Africa (MENA) region from the period of 1962 to 2006, where they find that the link between IB sectors and economic growth is not existed, and in fact, there is an inverse relationship amongst the two specifically for countries that export oil. Besides that, they also found that the Islamic banks and economic growth have a weak relationship. However, it is believed that these findings might reflect “Dutch disease” problem, which is normally correlated with the countries that are rich with resources. Similarly, Barajas et al. (2010) have achieved the same conclusion, where they find that financial deepening effects on economic growth are different amongst the oil- and non-oil-exporting countries, where the result shows that the financial deepening process is lesser in the oil-exporting countries. Some other studies that explored the results of IF to contribute negatively or is not significant to the economic growth are done by Barajas

et al. (2013), Bm and Uddin (2016), Echchabi et al. (2018), Khasanah and Wicaksono (2021), and Youssouf and Hachloufi (2022). Most of the studies examined Islamic finance-growth nexus without incorporating the effect of policy. Hence, this study investigates Islamic finance- growth nexus by incorporating the effect of one of the regulatory policies in Malaysia, which is IFSA 2013 as a significant contribution to the literature.

3.3.1.2.1 Islamic Banking and Economic Growth

Despite the abundant studies on Islamic bank-growth nexus, the conclusion remains ambiguous both empirically and theoretically as there are different results from the literatures, which are then clustered into 4 main hypotheses as stated in the previous section. Theoretically, Chapra (1988, 2003) and Hasan and Dridi (2010) have proposed that the *Shari'ah* legal framework integration in the IF and banking industry has improved the economic performance. Besides, the other authors such as Khan and Bashar (2008), Tag El-Din (2008), Farahani and Dastan (2013), and Hasan (2014) suggested that the generalization and implementation of the IF values, in which they deliberated the values as essential to improve the economic efficiency and contractual equity. On the contrary, Kuran (1995, 2004), Bjorvatn (1998), and also Yusof and Wilson (2005) in their studies found that the IF rules have hindered the economic activities. Besides, other economic researchers such as Darrat (1988), Yousefi et al. (1997), Furqani and Mulyany (2009), and Ammar et al. (2013) discovered that the relationship between IF and economic development is ambiguous and there is no evidence of the dominance of the interest- free financial structure over the interest-based one.

The current IB industry's nature in comparison to the conventional banking industry has restricted the empirical research on the issues. Among the limited studies on the IF-growth nexus one is carried out by Goaied and Sassi (2010) who utilized GMM to examine the effect of IB sector on the economic growth of 16 Middle-East and North Africa (MENA) countries within the period of 1962-2006, where it found that there is no significant link between IB development and economic growth, and in fact, the relationship is significantly negative, particularly in the countries that export oil, and similar result is obtained by Aziakpono (2003) and Barajas et al. (2010). In addition,

Hachicha and Amar (2015) discovered that GDP in Malaysia is not responsive to the Islamic financing in the long-run because of the Islamic bank financing's structure that marginalizes the instruments that are based on the profit-and-loss sharing (PLS). They added that the results are consistent with the economic reality in Malaysia because the Islamic banks are found to engage more in non-participatory activities, whose impacts are of short term. Amongst the studies that explored the possibilities of IF to contribute negatively or is not significant to the economic growth are done by Bm and Uddin (2016), Echchabi et al. (2018), Al Fathan and Arundina (2019), and Youssef and Hachloufi (2022).

The link between IB and economic growth in Malaysia has also been explored by Furqani and Mulyany (2009) by employing the co-integration technique and vector error correction modelling (VECM) on the quarterly data from 1997-2004. The study used Islamic bank total financing as the IB intermediation's indicator, whereas trade, fixed investment, and real GDP per capita are representing the real economic activities' indicators. The findings showed that there is a significant bi-directional link between Islamic and fixed investment in the long-run, while the real GDP Granger causes the Islamic banks' growth, which shows that it follows the demand-following hypothesis. The results are coherent with the theoretical hypotheses that Islamic banks affect the economic development positively through the investment enhancement. Furthermore, the studies led by Majid and Kassim (2015) found that the IB and financial industries (IBFIs) have a significant role in the Malaysian economy. A significant unidirectional causality from the IBFIs development to economic growth is discovered and supports the supply-leading hypothesis. Additionally, it is found that there is a significant link between economic growth and the IB development in the long run in several Southeast Asian countries and Muslim population is found to be statistically significant in driving the economic growth (Lebdaoui and Wild, 2016). Similar results are achieved by Caporale and Helmi (2018), Boukhatem and Ben Mousa (2018), Anwar et al. (2020), Mensi et al. (2020), Gani and Bahari (2021), and Naz and Gulzar (2022).

As summarized in Appendix A.1, most of the studies employed Islamic banking deposits (*IBD*) and Islamic banking financing (*IBF*) as a proxy to the IB sector. To add to the literature, this study is exploring Islamic banking-growth nexus by adding one more variable besides *IBD* and *IBF*, which is Islamic banking assets (*IBA*) as a proxy to

the IB sector. Besides, *IA* is also added as a proxy to the IB sector as a result of IFSA effect. This is in line with Budhathoki and Rai (2020), who suggested that further studies should include more indicators to represent a variable.

3.3.1.2.2 Islamic Capital Market and Economic Growth

Theoretically, a stock market that is well-developed should stimulate growth by reducing transaction costs and promoting savings, which will then improve the allocation of the resources. Besides that, to increase the liquidity of the market via risk sharing is also important as it will lower the capital cost. Several research that have analysed the stock market-growth nexus are Atje and Javanovic (1993), Obstfeld (1994a), Levine and Zervos (1996), Bencivenga et al. (1996), Singh (1997), Levine and Zervos (1998), Rousseau and Wachtel (2000), Arestis et al. (2001), Henry (2003), and many others. While several of the studies supported the positive link between the stock market and economic growth, there are also several studies that rejected it.

For examples, the studies led by Bencivenga et al. (1996), Levine and Zervos (1996, 1998), and Rousseau and Wachtel (2000) have proven that a liquidity shortage is eased by stock markets, which will then lead to growth. In addition, it is also concluded that the increase in private physical investment will lead to the liberalization of stock market, which will then lead to the increase in per worker output (Henry, 2003). Besides that, it is also argued that both stock market and banks impact the growth positively but compared to stock markets, banks lead to a greater efficiency gain. Moreover, Mun et al. (2008) who have explored the causal links between the stock market and Malaysian economy discover that the stock market Granger-caused the Malaysian economy economic activity with no reversal causality is observed. In addition, the results also show that the lengthiest significant lag length is two years.

In addition, Nurudeen (2009) in his study suggested that in Nigeria, the stock market development, which is measured by the market capitalization-GDP ratio increases the economic growth. In Mauritius, Nowbutsing and Odit (2009) found that the nexus between stock market and growth is positive both in short run and long run. Moreover, Cooray (2010) found that the policy measures that are taken to increase the liquidity, size, and activity of the stock market will further enhance the economic growth

across 35 developing economies. It is also found that the stock markets positively affect the economic growth of some countries in which their stock markets are more liquid and active (Boubakari and Jin, 2010).

On the contrary, it is found that stock markets have a greater growth effect compared to banks (Atje and Javanovic, 1993). Besides that, it is also proven that the global financial integration leads to the increases in growth via the increases in the welfare gains (Obstfeld, 1994). However, there were also several studies that have disagreed with the notion that stock markets can stimulate growth. For instances, Devereux and Smith (1994) suggested that the increases in the stock market integrations lead to a bigger risk sharing, which will then lead to a fall in the economic growth, while Singh (1997) contended that stock market volatility is not contributing to the increase in growth in the developing countries because it can worsen the macroeconomic instability. Furthermore, the results of the study led by Arestis et al. (2001) discovered that even though both stock markets and banks are able to promote economic growth, the effects of the banks are more powerful, and they also found that the stock markets' contributions towards the economic growth may have been exaggerated by the studies that employed a cross-country growth regression. Meanwhile, Levine and Zervos (2008) opined that the volatility, size, and international integration of the stock markets are not strongly linked to the growth. Therefore, in the empirical literatures of economic growth, the stock market– growth nexus remains the subject to debate.

On the other hand, due to the lack of data availability, there is still lack of empirical studies on the link between Islamic stock market or ICM in general, and economic growth, plus the studies on this area have mostly been theoretical (Mustafa et al., 2017). For instances, A.Alawode (2017) has notionally explained that Sukuk is important for the economic development in terms of fiscal support, liquidity management, education, health, infrastructure, as well as environment. He further explained that Islamic investment funds will enable pooling of resources to invest in diverse range of Shariah-compliant securities and instruments, facilitate effective mobilization of funds to participate in various sectors and create more wealth in the economy, provide different fund structures to suit specific needs, requirements and preferences, and create opportunities for cross border linkages and businesses.

To empirically test the view that IF and economic growth are positively linked, Echachabi et al. (2016) examined the link between Sukuk issuance and economic growth, which is proxied by three proxies, which are Gross Capital Formation (GCF), GDP and trade activities. The study used the data that covers not only Gulf Cooperation Council (GCC), but also other countries including Indonesia, Malaysia, Pakistan, Turkey, China, Singapore, Kazakhstan, Brunei, United Kingdom (UK), Germany, France, and Gambia. The data are gathered from the World Bank databases and the IF Information Services (IFIS) and are analysed through the Toda and Yamamoto Granger Causality test. The results of the study indicated that the Sukuk issuance influences positively the GCF and GDP only if all the countries are pulled together, or otherwise, no impact is found for the GCC and Saudi Arabia.

Furthermore, Al Fathan and Arundina (2019) have also explored the causal link between IF and economic growth in Indonesia, in which the IF is proxied by IB, Islamic stock market, and also sukuk market by using quarterly data from 2002Q3 to 2017Q4. To analyse the causal link between IF and economic growth and amongst the three main sub-sectors of IF, the study employed vector autoregressive (VAR) model, and then used granger causality and impulse response function. It is found that the *sukuk* market development follows the supply- leading hypothesis, whereas both Islamic stock market and IB development support the neutrality hypothesis. Additionally, it is also found that there is a unidirectional causality from sukuk market development to Islamic stock market development and from sukuk market development to IB development.

Besides that, Nawaz et al. (2019) in their studies found that there is a bidirectional relationship between Islamic asset financing and population, where it is implied that the population reinforces IF, and attracts Islamic financing, plus a well-functioning Islamic financial system boosts the economic growth. However, the limitation of this study was it ignores the fact that there are numerous range of variables that influence economic development relative to the Islamic financing, which include gross fixed capital formation, foreign direct investments, and market capitalization. In current studies, Musa et al. (2020), Tan and Shafi (2021), Naz and Gulzar (2022), and Yani et al. (2022) in their studies have found that ICM has a positive impact on Malaysian economic growth through equity-based financing. To add to the literature, this study is examining ICM-growth nexus, in line with the study of Al Fathan and Arundina (2019),

which suggested that most studies of Islamic finance-growth nexus have been focusing majorly on IB sector, and there is a need to explore other sectors too to represent the IFI. Besides, IFSA effect is also added in this ICM-growth nexus's study, which is yet to be done by the previous works.

3.3.1.2.3 *Takaful Industry and Economic Growth*

In the insurance area of studies, the pioneer researchers are focusing on the effect of economic development on the insurance growth. The study of Beenstock et al., (1986) was amongst the pioneer empirical research that discovered the positive impact of income on the insurance demand. By utilizing the time-series and cross-section data from ten industrialized countries for the period of 1970-1981, they found that the demand of the life insurance is directly positively dependent on income, which is measured as GDP per capita. Subsequently, a series of empirical studies on the effect of economic development on both nonlife and life insurance growth follow. According to Hussels et al. (2005) and Arena (2008), both non-life and life insurance is found to be directly dependent on the economic development by utilizing the insurance premium as the dependent variable and the GDP per capita as the independent variables.

Moreover, Outreville (1990) has also explored the link between property-liability insurance premia and economic development, across 55 developing countries, by using a cross- section data. The results showed that there is a positive relationship between the property- liability premia per capita and GDP per capita, where one percent increases in the GDP causes more than one percent increase in the insurance demand. By using the OLS method, the results also showed that there is a positive link between insurance development and financial development but the coefficient for price is not statistically significant. Finally, the results also reported that the elasticity of income is bigger than one.

Furthermore, the study from Haiss and Sumegi (2008) also discovered that the life insurance affects the GDP growth positively in Norway, Switzerland, and Iceland, which are known as the EU-15 countries. However, they found a larger impact for liability insurance in New EU Member States from Eastern and Central Europe. In addition, the results of the study also emphasized the effect of economic development

level and real interest rate on the insurance-growth relationship, where it is contended that both financial sector analysis and macroeconomic policy need to focus more on the insurance sector. Besides that, Guochen and Wei (2012) found that the demand-following pattern in the insurance-growth nexus is significant only for rich states in both non-life and life insurance sectors in China, while the supply-leading pattern prevails through most areas with different developing stage, except for poor states in life insurance sector.

There are also many other studies that discover that the insurance and economic growth are positively related. For instance, Hu et al. (2013) in their study have found that there is a one-way Granger causality from insurance sector to economic growth for Zhejiang, Jiangsu, and Shandong regions in China. In addition, Alhassan and Fiador (2014) in their study have also found that there is a positive link between insurance penetration and economic growth in the long run, which indicates that the funds that are mobilized from the insurance businesses have a long-run effect on the economic growth. Furthermore, they also discovered that there is a unidirectional causality from non-life and life insurance penetrations as well as aggregate insurance penetration to economic growth, which support the supply-leading hypothesis. Besides that, Alhassan and Biekpe (2016) also proved that there is a long-run correlation between insurance and economic growth in Kenya, Mauritius, Nigeria, South Africa, and Morocco. Moreover, Webb et al. (2017) found that a higher level of both insurance and banking penetration cooperatively will have a bigger effect on the economic growth.

On the contrary, there are also many literatures that discover a negative link between insurance sector and economic growth, and some of them are Omoke (2012), who found that the insurance sector and economic growth in Nigeria is not positively linked within the period of 1970-2008, plus it is also shown that the Nigerians have not fully embraced the insurance industry despite its importance to the economic growth as there is a very low insurance market activity in Nigeria. In addition, Houa et al. (2012) discovered that life insurance penetration and banking development do not have any impact on real outputs through the cross-country evidence. Furthermore, Lee et al. (2016) suggested that the insurance-growth nexus is negative in the regime with relatively healthier institutional environments, which means that a generally unhealthy institutional circumstance could deter the growth effect of the life insurance

sectors, and this result might be explained by the adverse selection and moral hazard problems, the behaviour of risk-taking, as well as the macroeconomic volatility.

However, according to Trokic (2017), the role of Islamic insurance or Takaful, in contributing towards the development of economic growth, namely in terms of increasing the financial inclusion, has yet to be investigated in the literature. Therefore, Trokic (2017) investigated theoretically the potential role of Takaful in economic development, particularly in poverty alleviation. It is found that Takaful can be effective in providing strategies for bettering the economic situation of poorer populations, when used in partnership with other mechanisms mainly because Takaful is similar to mutual funds and cooperatives, and despite the increased growth of the Takaful sector, there are still numerous challenges left to be faced, where many of these challenges are associated with governance, regulation, operation, capacity building and risk management. Takaful operators need to work on alleviating these obstacles and challenges to better compete on the global insurance market and contribute to the economic development. Aziz and Kassim (2020) have utilized a survey method to explore the link between Takaful demand and Malaysian economic growth, and the result shows that Takaful is able to promote economic growth via investments and savings from the increase in Takaful demand. Moreover, Belatik (2021) also suggested that Takaful should highly focus on the areas of innovation and economic growth, given the Covid-19 impact on the nation. Nafti (2022) and Muhamat et al. (2022) also found that Takaful is a good solution to poverty and misfortune events, and hence, helping the nation. Because there is lack of studies on Takaful-growth nexus, there is a need to explore it, as attempted by this thesis.

The summary of empirical studies on IF-growth nexus, which include IB-growth nexus, ICM-growth nexus, and Takaful-growth nexus, is illustrated in Appendix A. Based on the summary, it can be seen that the studies on IF-growth nexus start later than their conventional counterpart, and the conventional studies are more thorough in terms of the variables employed. In the studies of IB-growth nexus, Budhathoki and Rai (2020) suggest that more indicators are needed to be included in the variables to represent the IB development such as IB assets, earnings growth rate, and debt ratio. Furthermore, there are also lack of studies that are focusing on other sectors besides IB in the IF-growth nexus studies. Generally, in the case of Malaysia, there is very few studies that considers the effect of IFSA 2013 on the IF-growth nexus. Therefore, this

study will fill the research gap in terms of the associated issues.

3.3.1.3 Evidence of Islamic Finance-Growth Nexus

3.3.1.3.1 Cross-Countries Approach

Several technical econometric tools have been employed to investigate the empirical evidence of finance-growth nexus. It is generally distinguished into three broad types, which are time- series analyses, cross-country regressions, and panel data analyses. Several studies also used other methods such as detailed case country analysis. Several recent empirical studies employed methodologies that are based on micro-econometric to investigate the finance- growth nexus. Building on the theoretical evidence, the econometric methods on this topic can be generally grouped into four groups, which are instrumental variable (IV), pure cross- country, firm-and household-level, and times series approaches (Grassa and Gazdar, 2013).

Goldsmith (1969) initiated the cross-country study of growth and financial development. Later, King and Levine (1993) in their study introduced a cross-country dataset for growth studies and has become the point of reference for the other studies. Since then, their empirical designs have been broadly used in the finance-growth nexus investigations. Cross- country analysis employs mostly ordinary least squares (OLS) regression techniques and more recent techniques such as two stage least square (2SLS) and instrumental variable (IV). Majority of the findings that used cross-country analysis demonstrated a positive link between finance and growth (Rioja and Valev, 2002; Beck and Levine, 2004; Ndikumana, 2005; Beck et al., 2014; Leaven et al., 2014; Ngare et al., 2014).

To compare the effects of Islamic financial development and conventional financial development on the economic growth for five GCC countries, which include UAE, Bahrain, Qatar, Kuwait, and Saudi Arabia, Grassa and Gazdar (2013) used different measures of financial development for the period of 1996 to 2011 by employing OLS, generalized least squares, and also panel data frameworks. The empirical findings robustly supported the proposition that IF leads to growth in all five countries but there is no significant link amongst the conventional financial development

and economic growth. It is the first study to evaluate the different impacts of Islamic and conventional finance on economic growth in the countries that lead the Islamic financial system.

Farahani and Dastan (2013) examined the IF-growth nexus in 8 countries (Bahrain, the UAE, Saudi Arabia, Kuwait, Qatar, Yemen, Malaysia, Indonesia, and Egypt) for the period of 2000-2010. The findings demonstrated that IF does benefit the economic growth in the long run. Besides, Abedifar et al. (2016) also studied on the significance of both Islamic and conventional banks and their traditional rivals, as well as the finance-growth nexus in 22 Muslim nations for the period of 1999-2011. The findings showed a strong and positive correlation between the market share of Islamic banks and the development of financial deepening and intermediation, and economic growth, particularly in low-income Muslim nations. The findings also demonstrated that a higher market share of Islamic banks is related to a higher efficiency of conventional banks.

On the contrary, several researchers found that Islamic banks had no significant effect on the economic growth. For instance, Goaied and Sassi (2010) examined the IF-growth nexus in 16 Middle East and North Africa (MENA) nations by utilizing the Generalized Method of Moments (GMM) estimator to confirm the impact of Islamic banks' credit on economic growth. The findings supported the idea that banks do not promote economic growth by demonstrating a lack of a substantial association between banking expansion and economic growth. Additionally, they discovered that the banking indicator is strongly and adversely related with growth for several specifications. A second observation showed that Islamic banks merely exhibited a weak correlation with economic growth.

Additionally, the IF-growth nexus varied among oil-exporting nations as well as among regions and socioeconomic levels (Barajas et al., 2013). They demonstrated that the IF-growth nexus is weaker in low-income countries as well as in oil-exporting nations across the MENA regions based on a sample of 150 countries over the period of 1975-2005. Moreover, the research further suggested that these discrepancies may be influenced by the regulatory monitoring, and by the variations in the accessibility of financial services to the general public.

Ammar et al. (2013) in their study showed that the depth of IB has a detrimental impact on economic growth when there is a poor environment. Their work was based on panel data of 15 nations over the period of 1990-2009. According to the study, this subsector's impact on the nation's economic growth indicator is quite "noisy" because of the other growth-promoting factors, including conventional banks. The weak IF-growth nexus might be the result from the relative immaturity of IF compared to the conventional finance.

Gheeraert and Weill (2015) investigated the impact of IB growth and macroeconomic efficiency across 70 countries over the period of 2000-2005, by employing stochastic frontier method to estimate the technical efficiency. They discovered that there is a non-linear relationship between IB growth and macroeconomic efficiency. Although IB growth increases efficiency up to a certain point, further development of IB reduces efficiency over that point. In addition, El Mehdi (2017) investigated the IF-growth nexus in 15 countries across the MENA and Southeast Asia regions over the period of 2000-2009 by using the methodology of Mankiw et al. (1992) and Demetriades and Law (2004) based on a Solow-Swan model. The empirical findings demonstrated that the growth of IB has a positive impact on the GDP per capita growth rate. However, the findings from the semi-parametric and polynomial method indicated a non-linear link between IF and economic growth.

Boukhatem and Moussa (2017) assessed the relationship between Islamic banks and GDP growth in 13 MENA nations over the period of 2000-2014. They discovered strong evidence that Islamic banks do stimulate the economic growth in the MENA nations. Additionally, they also discovered that while the development of IF can promote economic growth, weak institutional foundations will limit this beneficial effect. Additionally, net-oil- exporting MENA countries did not seem to benefit from the huge oil-fueled deposits that are expected to raise the size of loans. According to the findings, governments should consider about enacting pro-active and advantageous economic and institutional policies that are focused on Islamic financing.

Within the context of the endogenous growth model, Ledhem and Mekidiche (2020) examined the relationship between the financial performance of IF and economic growth in Saudi Arabia, Turkey, Indonesia, Brunei, and Malaysia. In this study,

dynamic panel system GMM was used to quantify the effect of IF's financial performance on economic growth by using quarterly data (2014:1-2018:4). The Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity (CAMELS) system parameters were used as indicators of IF's financial performance and GDP as the indicator of economic growth. All Islamic banks operating in the five nations were included in the sample. The results showed that profitability through return on equity (ROE) is the only important aspect of IF's financial performance that has an impact on the endogenous economic growth. The experimental results also showed that in order to significantly contribute to economic growth, additional IF's financial performance criteria must be encouraged. Recently, Naz and Gulzar (2022) discovered that the real GDP of the majority of Muslim nations is highly connected with the assets, financing, and bonds of Islamic banks in the long run.

3.3.1.3.2 Time-Series Approach

Some studies including Thangavelu and Ang (2004), Caporale et al., (2004), Ibrahim (2007), Ang and McKibbin (2007), Ang (2008), Enisan and Olufisayo (2009), Cheng (2012) and Samargandi et al., (2014) attempted to probe finance-growth nexus using time-series analysis approach. Time-series analysis employs multiple tests, including Granger causality, multivariate cointegration, Johanson cointegration, Autoregressive Distributed Lag (ARDL), Vector Autoregressive (VAR) or Vector Error Correction Model (VECM). Several studies used a Principal Component Analysis (PCA) technique to create several financial development indexes. The results shown by these analysis techniques varied; stock market plays crucial role (Enisan and Olufisayo, 2009; Lee, 2012); output growth causes financial growth (Ang and McKibbin, 2007); financial sectors do not play any role (Majid and Mahrizal, 2007; Samargandi et al., 2014) and economic fragility and crisis (Ang, 2008).

In the case of IF-growth nexus, Ibrahim (2007) tried to evaluate three problems in the area for the Malaysian economy. First, to evaluate whether the development of Islamic financial markets and intermediaries have contributed to the Malaysian economic growth over the past two decades. Second, to assess whether the financial volatility, which is caused by the financial liberalization, is detrimental to the growth. Third, to examine whether the Islamic financial markets and intermediaries are

complementing or substituting each other. Using VAR estimation method on quarterly data covering 19 years from 1985 to 2003, Ibrahim (2007) found that there is a causality link between the Islamic financial variables and the macroeconomic variables in the long run, which indicates that the Islamic financial market development is important for the economic growth.

Furthermore, Al-Malkawi et al., (2012) empirically investigated the short-run and long-run dynamic relationships between Islamic financial development and economic growth in the United Arab Emirates (UAE) economy by using annual data that covers the period from 1974-2008. They employed ARDL and cointegration methods in their studies and used two proxies of Islamic financial development. The first one is broad money (M2) as a percentage of GDP to measure the size of Islamic financial intermediaries and the second one is the credit ratio that is provided to the private sector by the Islamic commercial banks as a percentage of GDP. Besides that, they also provided evidence that the Islamic financial intermediaries size has a significant negative effect on the UAE economic growth. The results from the Granger causality test also confirmed that there is a negative dynamic bi-directional causality between Islamic financial indicators and economic growth in the short run. In addition, they also attributed the negative results due to the change in UAE financial system through the period of the study and that UAE requires a certain degree of economic development before the Islamic financial system development, resulting in fostering economic growth in UAE.

Abduh et al. (2012) examined the relationship between Islamic and conventional financial development and Bahrain's economic growth. Vector Error Correction Model and Johanson and Juselius cointegration test were used on the quarterly data over the period of 2000Q1–2010Q4. The findings demonstrated that there is a significant positive between IF and long-run economic growth in Bahrain. However, there is no evidence on IF-growth nexus in the short run. Overall, it is discovered that Bahrain's economic growth and IF are mutually dependent.

Using quarterly data over the period of 2003-2010 and the bound-testing technique of cointegration and error correction modelling, Abduh and Omar (2012) explored the link between IF and economic growth in Indonesia. The findings showed

that there is a strong correlation between IF and economic growth in Indonesia, both in the short and long runs. Furqani and Mulyany (2009), Hasan & Dridi (2010), Goaid & Sassi (2010), Abdul Manap, Khoutem and Nedra (2012), Abduh, and Omar (2012), Hanif et al. (2012), and Mansor et al. (2015) all come to similar conclusions.

Majid and Kassim (2014) have empirically examined the influence of the IB and financial institutions (IBFIs) on the economic growth in Malaysia, which focuses on the post- 1997 economic turmoil. It is found that IBFIs play a significant role in the Malaysian economy. In specific, there is a significant unidirectional causality running from the IBFIs development to the economic growth, which supports the supply-leading hypothesis. Similarly, Hachicha and Amar (2015) have empirically investigated the link between Islamic bank financing and economic growth in Malaysia over the period of 2000Q1-2011Q4 by employing the unit root tests, an error correction model, and the Johansen and Juselius (1990) test. Their study discovered that the Malaysian GDP is not sensitive to the Islamic financing in the long run, while the error correction model estimation shows that the Malaysian output elasticity with respect to the various Islamic financing indicators turns around 0.35 in the short run, which indicates that the effect of the various IF indicators on the economic growth in the short run is more important than their effect in the long run.

Moving forward, Lebdaoui and Wild (2016) have empirically assessed the link between IB and economic growth in Southeast Asian countries for the period of 2000Q1 to 2012Q4 by employing the panel ARDL-based estimators that consist of mean group (MG), pooled mean group (PMG), two-stage regression two-stage least squares (2SLS), and dynamic fixed effect (DFE). It is found that there is a link between IB and economic growth in the selected region only in the long run. Besides that, the Muslim population is also found to be positively significant in the IB-growth nexus.

Zarrouk et al. (2016), on the other hand, explored the link between both financial development and IF, and real economic growth in UAE for the period of 1990 to 2012 by adopting a bivariate vector autoregressive model. It is found that the causality direction is running from the financial development to the real economic growth, but not the other way around. In addition, it is also found that the real economic growth causes Islamic financial development with no inverse effect. Additionally, Chowdhury

et al. (2017) have examined the relationship between Islamic financing values and economic growth in Bangladesh, where the two proxies of the Islamic financing values are risk-sharing and non-risk sharing, for the period of 1984 to 2014. The study adopted ARDL approach and found that the risk sharing instruments are positively linked to the economic growth. However, the non-risk sharing instruments are found to be negatively correlated to the economic growth. Moreover, Ali and Azmi (2017) investigated IB-growth nexus in the Organisation of Islamic Cooperation (OIC) nations by using time series data over the period of 2007-2013. The results revealed that the link IB and economic growth is positively significant in the long run.

Nawaz et al. (2019) observed the active interaction between IF and economic growth in Pakistan by adopting the unit root test, cointegration test and Granger Causality tests to find out whether the IF affects the economic growth. It is found that a well-operating Islamic financial system does promote the economic growth. Similar results also achieved by Saleem and Setiawan (2021). Nawaz et al. (2019) also found that there is a bidirectional link between Islamic asset financing and Muslim population, which implies that Muslim population supports IF and attracts Islamic financing. Moreover, Al Fathan and Arundina (2019) have explored the causality link between Islamic financial development, which covers IB development, sukuk market and Islamic stock market, and economic growth in Indonesia for the period of 2002Q3 to 2017Q4 by adopting Granger Causality test and VAR model. It is discovered that sukuk market development supports the supply-leading hypothesis, while IB and Islamic stock market development support the neutrality hypothesis view. Furthermore, there is a unidirectional causality, which runs from sukuk market development to Islamic stock market development, and from sukuk market development to IB development.

Recently, Tabash et al. (2022) examined the link between IB and the long- and short- run growth of the Nigerian economy on quarterly secondary time series data over the period of 2013-2020, by employing Error Correction Model (ECM) and ARDL. The findings indicated that although IB has a short- and long-run positive impact on the Nigeria's economy, this impact is insignificant, and policymakers should work to restructure the nation's financial system and develop policies that can foster the development of the Islamic financial sector.

3.3.1.3.3 Panel Approach

Panel analysis takes time dimension into cross-sectional analysis. Analysis techniques which are commonly used in panel analysis include panel, panel VAR, GMM, and dynamic panel. Some studies which utilized this analytical tool to examine the finance-growth nexus among others are Calderon and Liu (2003), Beck and Levine (2004), Luintel et al., (2008), Kar et al. (2011), Bangake and Eggoh (2011), Jun (2012), Barajas et al. (2013), Hsueh et al. (2013), Law and Singh (2014), Ngare et al. (2014), Pradhan et al. (2014), and Beck et al. (2014). Their results consistently concluded a positive effect on the finance-growth nexus.

Yusof and Bahlous (2013) evaluated IF-growth nexus in Malaysia, Indonesia, and the Gulf Cooperation Council (GCC) nations by using panel cointegration analysis, impulse response functions, and variance decompositions (VDCs). The results revealed that Islamic banks stimulates economic growth in all countries in the study both in the short and long runs. However, compared to the GCC nations, the IF-growth nexus is stronger for Malaysia and Indonesia in the short run. In addition, Hafnida and Abdullah (2016) used panel data from 1990-2012 to evaluate the connection between IF and economic growth in 4 OIC nations. Panel unit root test and two stages least square (2SLS) were the methods used in this investigation. The empirical findings indicated that net export and government spending have an influence on economic growth. IF is positively and significantly connected to economic growth in four OIC nations, which supports the notion that a healthy banking system will foster economic growth through the development of the financial sector.

Furthermore, by adopting the same method as Imam and Kpodar (2015), Madni (2017) has empirically investigated the dynamic link between IB development and economic growth in a sample of low- and middle-income countries for the period of 1990-2010. It is concluded by the results that IB is positively linked to the economic growth, and it is one of the government policies to improve its economic growth. Moreover, Anass et al. (2017) have examined financial model in their study, which is evaluated by Islamic banks, and economic growth of 9 countries during the period of 2008-2014. They employed GMM and Panel Model to observe the finance-growth nexus. The results of the study confirmed the presence of a positive connection between the two, but it is not strong, yet just enough for IB size in this sample, and the financial

system's weight that remains average than the conventional banks.

Moreover, Saeed et al. (2018) has also conducted an empirical study to recognize the contributing role of the banking industry in the economic development in both short run and long run in Pakistan for the period of 2006 to 2016 by employing the panel unit root tests, Panel co-integration tests, panel Fully Modified Ordinary Least Squares (FMOLS) and Stock- Watson Dynamic OLS tests and panel VECM test. The results indicated that there is a positive bi-directional causality link between the banking sector and the economic growth. Furthermore, Mtiraoui (2019) investigated the impacts of both Islamic and conventional finance on the economic growth and consequently the link between financial development of Islamic ethics and conventional financial development on the economic growth by employing GMM method in first differences and the GMM method in system for our study many Islamic country during twenty successive years (1990-2009). It is found that IF is important as a growth engine in the literal sense of the literature, and ethical finance remains important compared to the conventional finance especially in this economic reality.

Jawad and Christian (2019) examined the relationship between IB development and economic growth over the period of 2004-2014 using panel data of 24 nations. The results revealed evidence of a significant and statistically positive association between the IB development and economic growth. Recently, Pratami et al. (2022) studied whether the Association of Southeast Asian Nations (ASEAN)'s pro-cyclical economic growth is influenced by the *Shari'ah* banks' financing practises as each product of IF has a specific function in fostering growth. Quarterly data from 2010 Q1-2021Q4 for nine countries were collected. According to the panel data results, all forms of financing, excluding *Istisna* financing, had a positive and substantial influence on economic growth, with *Salam* financing having the highest potential for growth.

3.3.1.3.4 Nonparametric Approach

Quite a lot of recent studies employ nonparametric approach to explore the finance-growth nexus in their analysis. Major studies that used a nonparametric approach have questioned the assumption of linearity in the finance-growth nexus (Stengos and Liang, 2004; Ketteni et al., 2007; Panopoulou, 2009; Henderson et al., 2013; Herwatz and Walle,

2014).

Zarrouk et al. (2017) have explored the causality relationship between financial development, IF, and real economic growth in UAE using time series data for the period of 1990 to 2012. Besides that, this study employs a bivariate vector autoregressive model to document the link between the stated variables as well as to forecast growth under different scenarios. Moreover, a composite indicator is used as a proxy for the financial development and is determined using a non-parametric approach through data envelopment analysis. The results showed that the direction of causality is running from financial development to economic growth with no reverse effect. Meanwhile, the real GDP also causes Islamic financial development with no reverse effect. Additionally, it also concluded from the results that the past has been a proxy for the future, where financial development increases economic activities, and this will possibly continue to stimulate the IF development.

Shah and Masood (2017) conducted an empirical investigation on the input efficiency of Pakistan's banking and insurance industries, paying particular attention to its Islamic subsectors. This study used the non-parametric approach and Data Envelopment Analysis (DEA) to assess the technical, allocative, cost, and scale efficiencies of the banking and insurance institutions. The results demonstrated that the allocative efficiency of the Islamic financial services industry has grown and has stayed significantly higher than that of their conventional counterparts. The study also showed that the insurance industry is more technologically advanced than the banking industry. Finally, the study discovered that experts transfer across the two sectors can also increase the overall efficiency of the financial industry.

Rusydiana and Marlina (2019) analysed both Islamic financial services and social efficiency. This study used non-parametric technique of DEA and Free Disposal Hull (FDH) approaches to assess the level of efficiency of the IB sector. The findings indicated a downward

trend in Indonesian Islamic banks' financial efficiency over the period 2013-2018. The social efficiency of Islamic banks in Indonesia, on the other hand, is more likely to increase. The study categorised four Islamic banks in quadrant 4, two Islamic banks in quadrant 1, three Islamic banks in quadrant 2, and two Islamic banks in quadrant 3. In

order to achieve the public interest (*maslahah*), Islamic banks that have low levels of “social efficiency” must establish a policy that adheres to the five principles of Maqashid *Shari’ah*.

Ledhem and Moussaoui (2021) examined the relationship between Islamic financing for entrepreneurial activities and economic growth in Malaysia. To investigate the impact of Islamic financing for entrepreneurship activities on economic growth within the model of endogenous growth, this study applied a parametric analysis represented by VAR Granger causality and a non-parametric analysis represented in the bootstrapped quantile regression. This study employed data over the period of the first quarter of 2014 to the third quarter of 2019 (2014Q1–2019Q3). The results showed that Islamic financing for entrepreneurship activities is fostering economic growth in Malaysia, proving that IF is a significant driver of economic growth by supporting SMEs.

Recently, Ledhem and Mekidiche (2021) used non-parametric analysis to empirically examine whether Islamic securities boost economic growth in the Southeast Asian area using the endogenous growth theory. This study used panel quantile regression and Markov chain Monte Carlo optimization as the best non-parametric method to examine how Islamic securities affect economic growth in Southeast Asia from 2013Q4-2019Q4. GDP is used as a proxy for economic growth, while total issued Islamic securities holdings are used as a metric for Islamic securities. The results demonstrated that Islamic securities promote economic growth significantly.

3.3.1.3.5 Quantile-Based Approach

A new method to examine the finance-growth nexus, notably in assessing comparative importance of banks and securities market and their associations throughout the economic development process has been introduced. It is known as the quantile regression analysis, which has been adopted by Demircuc-Kunt et al., (2013) to give information on the finance- growth nexus at each percentile of the economic growth distribution. Quantile regression procedures show how the financial development indicators’ estimated coefficients change through the different economic development stages. Using a panel database construction of 72 countries, which covers the period

from 1980 until 2008, the results showed that as the distributional quantiles of economic development shift into higher quantile, the link between economic activities and bank development is declining, while the link between economic activities and securities market development is increasing. However, the quantile analysis does not yield a sharp causal interpretation between the finance-growth nexus.

In the case of IF, Jawadi et al. (2017) in their study have explored the geographical environment effects on the Islamic banks by employing a daily data of 12 Islamic banks in four regions, which are Asia, Africa, United States, and Europe for the period of July 2007 to April 2016. They adopted several methods, which include Panel Data Tests, Principal Component Analysis, and Quantile Regression Analysis. It is concluded from the results that the environmental effect seems to be varied along the quantiles, where the effect is positive in the lowest quantile while in the highest quantile, the effect is negative. Besides that, the quantile specification also points to nonlinearity in the environment and Islamic bank performance association, which reflects a time-varying discipline that is imposed by the Islamic Law as stated by the Shariáh board. Furthermore, Sukmana and Ibrahim (2018) also have examined finance-inequality relations by focusing on whether financial access mitigates income inequality at different levels of inequality. By applying quantile regressions to a cross-country data set of 73 countries, it is found that financial access serves as an inequality-mitigating factor only when income inequality of a country is low. In other words, emphasizing financial access in the development of finance may not reduce income inequality for countries experiencing high inequality.

Mensi et al. (2020) analysed the nonlinear link between the development of IB, significant macroeconomic factors, and economic growth in Muslim countries. By employing the dynamic panel quantile model, the results demonstrated that IB drives economic growth across the quantiles. Moreover, it is also found that foreign direct investment, oil production, and inflation have a positive influence on economic growth while government consumption, one-lag economic growth, terms of trade, and financial development have a negative impact on the economic growth. Plus, for the macro factors, practically all models show that they have a positively insignificant impact on the economic growth of the oil-importing economies.

Ledhem and Mekidiche (2021) empirically examined the relationship between IF and economic growth in Turkey by employing the endogenous growth model. Total Islamic financing is used as the primary exogenous explanatory factor in the quantile regression model, which uses the Markov chain marginal bootstrap resampling approach. GDP is used as a measure of economic growth over the period of 2013-2019 (quarterly). The research used scholarly literature and official financial records from the International Monetary Fund (IMF), IFSB, RED money Group, and Participation Banks Association of Turkey. According to the findings, IF is promoting Turkey's economic growth, which is consistent with the New Turkish Economy Program's (2019–2021) goal of fostering Turkish economic growth by increasing the share of IF.

3.3.2 Qualitative Literature

3.3.2.1 Islamic Banking and Economic Growth

Benamraoui (2008) examined the performance of Islamic banks in Algeria by adopting the interview method. To ensure good data analysis, 3 main steps stated by Miles and Huberman (1994) are used; 1) Data reduction, 2) Data integration and display, and 3) Drawing conclusions. He interviewed 18 experts in the IB areas. A comparative approach was adopted to determine the differences and similarities of the respondents' view. He found that most of the instruments offered by Islamic banks in Algeria are geared towards short-term financing, and the bank's overall performance has improved since its initial operations. It is also found that credit risk is the main obstacle of the bank. Besides, he also suggested to adopt effective risk management tools to deal with investment funds according to the *Shari'ah* principles, so that more investors and depositors would be attracted to ensure the best use of their investment funds, and hence boost the economic growth.

In addition, Baghshiyael (2011) investigated how can bank managers ensure the banking system activities are *Shari'ah*-compliant, and how can they contribute to economic growth in Iran by adopting literature review analysis and semi-structured interview in the period of 1989 – 2006. A total number of 12 experts was interviewed,

and thematic analysis was employed to analyse the data. He found that Iranian IB system is *Shari'ah*-compliant and contribute positively to economic growth via numerous banks' projects like paper and wood industry, petrochemical industry, cement industry, highways and so on. Similarly, Galfy and Khiyae (2012) investigated the effects of IB on economic growth by adopting literature review analysis, where he found that there is a mixed support for the hypothesis of IB as a main channel of economic growth, but the policy implication shows that IB contributes positively to economic growth.

Furthermore, Sarwer et al. (2013) study IB's contribution to the economic development in Pakistan by adopting the interview method. 6 experts were interviewed, where the data was analysed via content analysis method. He found that majority of the interviewees agreed that Islamic banks have a positive effect on monetary resources' mobilization and allocation, improve economic crisis, inflation, employment, and real GDP as well as encourage people to deal with Islamic banks. Meanwhile, only 33.33% of the interviewees opined that Islamic banks have a positive effect on trade. Meanwhile, Yusuf and Bahai (2015) found that Islamic banks contribute to the formation of a sustainable economic development via Islamic corporate social responsibilities by interviewing 5 experts in the industry.

Last but not least, Sharofiddin et al. (2018) also found that Islamic banks can contribute to social welfare and economic development by filling the financial intermediary gap in the country via interviewing 7 experts in the industry, in which the data was analysed using thematic and coding analysis. Similar findings were found by Al Azizah and Choirin (2018), Santoso (2020), Gwadabe and Ab Rahman (2020), Farlian et al. (2021), and Brydan (2022), where Islamic banks contribute to economic growth via numerous channels like *Zakat*, *Waqf*, and Micro, Small, and Medium Enterprises (MSMEs) as depicted in Appendix A.4.

3.3.2.2 Islamic Capital Market and Economic Growth

Aaron Z (2008) examined the moral behaviour in stock market by interviewing 6 experts in the industry for the period of 2001 – 2002 and 2006. The data from the interview is transcribed. He found that social investing in the U.S. is weak because it relies solely on mandates, while Islamic and ethical finance in Malaysia is strong because Islamic social

movements have reformed the Malaysian stock market's structure. On the other hand, Osmani and Abdullah (2009) investigated whether the Islamic stock market is *Shari'ah*-compliant by adopting inductive and analytical approach to the available literature. He found that Islamic stock market adopts a dynamic approach towards the securities development, where it incorporates numerous conventional stock market products. He suggested that the responsible entities must play their significant role to establish a more *Shari'ah*-compliant Islamic stock market.

Moreover, Demiralp (2009) explored the rise of ICM and the decline of Islamic radicalism in Turkey by adopting the interview method for the period of 2005 – 2006. He analysed the data using content analysis method. He found that the Islamic radicalism in Turkey has been declined drastically, and the alliances between secularist and Islamist groups via economic bargains will pave the most reliable way to democratization in the Muslim world. In addition, Hambali and Ali (2010) found that in Malaysia, a sustainable market for the efficient mobilisation of Islamic funds has been created because of SC's ability to allow for the development of a wide range of competitive goods and related services.

Najeeb and Vejzagic (2013) examined the growth, development and challenges of ICM in Indonesia, Malaysia, Brunei and United Arab Emirates by adopting literature review analysis. He opined that one of the five goals of *Maqasid Shari'ah*, which is the preservation of wealth is very important in the development of Islamic capital market. The variety of financing and investment opportunities are limited without Islamic financial markets. Islamic capital markets give Muslims the opportunity to actively contribute to the economic growth without violating their religious principles. Meanwhile, Araar (2014) examined the role of sukuk on economic development in Tunisia by interviewing 9 experts in the industry and analyzing past literatures. He found that more roles need to be played by government and Central bank to boost sukuk and IF markets as Tunisia still lacks experts in the field.

On the other hand, Aliyu et al. (2020) investigated the performance of IF-growth nexus by analysing the articles from high-impacted journals, which include Web of Science and Scopus. He found that Islamic stock indices are less volatile than conventional stock indices and most empirical studies regarding IF–growth nexus focus

on banking sectors, while other segments are neglected. Similar results are found by Al Fathan and Arundina (2019). Besides, Isa et al. (2020) found that the key motivational drivers for the investors and issuers is social contribution through business activities such as investment in the education sector by interviewing 19 experts in the industry and adopting thematic analysis in analysing the data. Liu and Lai (2021) found that there is an emergent of international adoption of green sukuk, which achieves the Malaysia's state-building objectives, specifically through advancing its status Islamic financial innovations frontier and expanding Malaysia's sukuk market by interviewing 23 experts in the industry and analysing past literatures.

3.3.2.3 *Takaful Industry and Economic Growth*

Abdullah (2012) examined Takaful from *Maqasid Shari'ah* perspective by analysing previous books, journal articles, conference papers and other periodicals. It is found that the risk management concept of takaful is well-embedded within the *Maqasid Shari'ah* to protect life, wealth, and human dignity against any kind of misfortunes. Meanwhile, Yazid and Sulong (2013) proposed a simple yet comprehensive conceptual model by identifying the main determinants that drive family takaful demand in Malaysia. They adopted descriptive and theoretical analysis of established journal and found that main determinants for family takaful demand are agency system (*al-wakalah*), products and services, reputation of Takaful operators, advertising and marketing of Takaful products.

In addition, Kamil and Mat Nor (2014) investigated the factors that influence consumers to choose Takaful over conventional insurance in Malaysia by interviewing 4 experts in the industry. The data from the interview is transcribed and integrated. It is found that Takaful customers aware of the link between insurance and religion in modern business, understand the roles of Takaful agents in explaining the concept of Takaful and its benefits as acts of worship (*Ibadah*) and *da'wah*, and agree that Takaful is necessary for Muslims as a replacement for conventional insurance. Salleh et al. (2017) developed a framework of Takaful property for Small and Medium Enterprises (SMEs) by adopting survey and interview via focus group discussion (FGD) with 8 experts in the industry. They stated that the Malaysian government has formulated legislative

policies to enable SME-ART scheme implementation and make it mandatory for the SMEs to take Takaful policies before renewing business licenses for the greater benefits.

On the other hand, Salleh et al (2018) examined the Micro Health Takaful Framework (MHT) for the poorer community in Malaysia by adopting survey and FGD with 8 experts in the industry. Verbatim transcription is used to analyse the data. They found that poor people are interested to participate in health scheme. Some of the respondents are unwilling to pay even the RM5, while most of them are only willing to contribute a nominal sum of around RM5-15 per month. Furthermore, Arifin and Daud (2018) studied the factors that affects the Takaful regulations and rules in Indonesia and Malaysia by adopting the interview method. They found that professionalism, external pressure (legitimacy and political influences) and uncertainty or standard response by other countries are amongst the factors that affects the Takaful regulations and rules in Indonesia and Malaysia such as IFSA 2013 and Financial Services Authority (FSA).

Hydara (2020) developed an integrative model of *Sadaqah*, *Waqf* and Takaful to alleviate poverty via empowering women farmers in Gambia, where he found that the proposed model for Gambian women farmers in the agricultural sector serves as the backbone of the Gambian economy with contribution of over 20% to GDP and an employability rate of over 70% of the population, which depicted the efficient use of resources by the Waqf institution under strict *Shari'ah* principles. The importance of Takaful and *Waqf* is also supported by Ishak and Wardayati (2021), where they suggested a sustainable *Waqf* Crop Micro Takaful Framework (WCMTF) for small farmers in establishing Crop Micro Takaful Scheme to help the poor. Similarly, Rapi et al. (2020) found several critical roles of microtakaful in helping the B40 group in Malaysia such as Alleviate poverty, Provide *Shari'ah*-based protection, Promote financial inclusion.

3.3.2.4 Techniques Used in Qualitative Study

3.3.2.4.1 Literature Analysis

According to Onwuegbuzie et al. (2010), one of two methods is used to analyse literature is either a between-study literature analysis or a within-study literature analysis. All

literature reviews should include both sorts of analyses, with the very unusual exception of those in which just one work is purposefully chosen for consideration such as a book chapter or a single article, and no other works are compared to it.

In a within-study literature analysis, the text of a particular work is examined. A within- study literature analysis goes beyond simply assessing a study's results or the main thesis of a non-empirical work in order to be most thorough and rigorous. Ideally, it entails dissecting each part of the paper, including the title, section on literature reviews, conceptual and theoretical frameworks, methods, results, and discussion.

A between-study literature analysis, on the other hand, compares and contrasts data from two or more literary sources. Although empirical research findings are frequently compared, it is ideal to compare every component of a work, or at least several of its components, with every/a number of its counterparts from other works. It is more likely that a multiple literature analysis will lead to a between-study literature analysis. To provide an adequate synthesis, more between-study literature analysis is required as the number of works chosen for the literature review increases.

By adopting Leech and Onwuegbuzie (2007)'s approach, it is argued that two main purposes are served, namely representation and legitimization when different sources are utilized during the literature review process. The term "representation" describes the capacity to derive sufficient meaning from the information at hand. Using a variety of sources enables the reviewer to synthesise data from many sources to better comprehend the phenomenon. In other words, using a variety of sources enables the reviewer to extract more information from the data, potentially leading to the creation of more meaningful interpretations and improving the calibre of syntheses. "Legitimation", on the other hand, relates to the veracity, dependability, confirmability, and/or transferability of syntheses made (Denzin & Lincoln, 2005). Lack of legitimacy, as hypothesised by Onwuegbuzie and Leech (2004), means that the amount to which the data have been captured has not been appropriately appraised, or that any such assessment has not offered support for legitimacy. As indicated in Table 3.2 below, Leech and Onwuegbuzie (2008) suggested potential qualitative analyses for syntheses of research.

Table 3.2 Potential Qualitative Analyses for Syntheses of Research

Type of Analyses	Short description
Classical content analysis	Systematic deductive or inductive reduction of source(s) to codes, followed by counting the number of codes.
Constant comparison analysis	Building themes from the codes after systematically reducing the source(s) to codes. The literature review section's headings and subheadings could be based on these themes.
Discourse analysis	Choosing representative or distinctive segments of language use, such as several lines of an interview transcript involving a researcher, and then studying the selected lines in detail for rhetorical organization, variety, accountability, and positioning. This technique is especially helpful when analysing the literature review parts of empirical, theoretical/conceptual, literature review, and methodological publications.
Domain analysis	To identify domains in a source(s), the links between referents and symbols are utilized.
Keywords-in context	Locating keywords and making use of the phrases around them to decipher their underlying meaning in a source or across sources.
Manifest content analysis	Use objective, organized, and empirical methods to describe observable features of communication.
Membership Classification analysis	Assessing how the authors and researchers present research terminology, ideas, conclusions, and classifications in their works.
Micro-interlocutor analysis	Examining data from one or more focus groups of academics, researchers, or practitioners regarding which participant(s) replies to each question, the order in which they do so, the nature of the response, the nonverbal interaction employed, and similar information.
Narrative analysis	By treating data like stories and considering how stories can help explain research findings, reviewers are given the ability to condense data into a concise summary.
Qualitative comparative analysis	Analysing similarities and differences systematically across sources is often employed as a theory-building strategy. This method enables the reviewer to connect previously established categories as well as evaluate and expand the categories. Assessing causation in findings from several sources using this methodology is especially helpful.
Secondary data analysis	Evaluating pre-existing artifacts or sources.
Semiotics	Assuming that no meaning can be ascribed to a single term and using speaking and writing as systems of signs. This kind of analysis demonstrates how signals are connected in order to include and exclude meanings.
Taxonomic analysis	Creating a classification scheme that groups the domains according to a visual representation such as a flowchart to assist the literature reviewer in comprehending the connections between the domains.
Text mining	Examining naturally occurring text within numerous sources to capture and uncover semantic information.
Theme analysis	Looking for linkages between domains and figuring out how these interactions relate to the larger cultural context.
Word count	Calculating the total number of (key)words used or the frequency of a specific word used in a between- or within-study literature analysis.

Source: Leech and Onwuegbuzie (2008)

3.3.2.4.2 Interview

The importance of interviews in social science research has long been acknowledged. Interviewing has “generally” been regarded as a crucial component in research design because qualitative researchers tend to provide extensive accounts of people and events in their natural surroundings (Weiss, 1994). Similarly, Kvale (1996) made an important point that speaking with people would be one of the most efficient ways to acquire and explore such constructs as such events are frequently not directly “visible”. Particularly, because interviews are interactive, interviewers can push for thorough, concise responses and go into any new subjects that may come up. Being a more realistic and less structured method of gathering data, interviewing is therefore anticipated to extend the understanding of the phenomena being studied.

An interview, according to Kvale (1996), is “a dialogue, whose objective is to gather descriptions of the (lifeworld) of the interviewee” to interpret the meanings of the “reported phenomena”. Similarly, Schostak (2006) added that an interview is a prolonged conversation between two people with the goal of obtaining “in-depth information” about a particular topic or subject and allowing for the interpretation of a phenomenon based on the meanings that the interviewees assign to it. Marshall and Rossman (2006) mentioned that there are many ways to get these meanings, but one-on-one interviews are the most popular. Together with one-on-one interviews, focus groups are another frequent form of interviewing. Four different forms of interviews are also often used in the social sciences, according to studies. The first is a structured interview, which is distinguished by the fact that it is mostly built around a series of predefined direct questions that call for prompt, often “yes” or “no” type of responses. The interviewer and interviewees would therefore have very limited freedom during such an interview (Berg, 2007). So, it may be claimed that both in terms of form and underlying presumptions, this type of interview is comparable to the “self-administered” quantitative questionnaire.

The open-ended (unstructured) interview is the second type of interview. Gubrium and Holstein (2002) noted that, in contrast to a structured interview, this type of interview is an open environment that provides both parties (interviewers and interviewees) with more flexibility and freedom in terms of organising the interview's content and questions. The interviewer in this situation would be “eager to follow up

intriguing developments and to enable the interviewee elucidate on numerous themes” (Dornyei, 2007). The third type of interview is semi-structured, which is more flexible than structured interview because “it permits depth to be obtained by giving the interviewer with the chance to probe and expand the interviewee’s comments” (Rubin and Rubin, 2005). Researchers are advised to utilize a basic checklist (see Berg, 2007) to ensure that all pertinent questions are asked when conducting these interviews. According to Berg (2007), the benefit of such a checklist is that it “permits the interviewer to keep the interview within the limitations delineated out by the purpose of the study while enabling for in-depth questioning” (Ibid, p. 39). The fourth method is focussing group interview, which, according to Barbour and Schostak (2005), is “an interview technique in which participants are selected because they are a purposeful, though not necessarily representative, sampling of a specific population, and being “focused” on a specified issue”.

Although there is no set strategy for analysing interview data in the literature, researchers should proceed with caution because doing so can impact not only the validity and reliability of the entire research but also the quality of the interviews themselves. A significant task that must be completed ultimately is reporting an interview; nevertheless, the type of the reporting is somewhat determined by the nature of the interviewing (Bell, 1987). For example, a structured interview that may produce numerical data can be reported concisely in graphs and tables, whereas an open-ended interview that might produce word-based reports may take up a lot more space. According to Kvale (1996), an interview report should include the following:

1. An introduction, which includes the main contents and themes.
2. The methodologies’ outline, which includes the designing to interviewing, and transcription to analysis.
3. The results, which includes the data analysis, interpretation as well as verification.
4. A discussion

Similarly, Holliday (2007) stated that the researcher must first describe the research techniques, as well as the significance of the research questions and how they relate to the method’s application. Nevertheless, reporting must also discuss and defend

the facts and responses provided. It cannot just summarise what has been said (Neuman, 2007). Also, some of the respondents' responses can be quoted because they would offer extraordinary and "invaluable interpretations" (Bechhofer and Paterson, 2000).

According to Durago (2022), a structured interview is better compared to an unstructured interview because the issue of getting redundant responses can be avoided. Trotter II (2012) and Vasileiou et al. (2018) also mentioned that there is no consensus on the optimal sample size in interview-based study, and the total number of experts interviewed rarely exceeds 15. To analyse the outcome of the interview, a qualitative content analysis is adopted, in which the interview texts are transcribed. According to Erlingsson & Brysiewicz (2017), the objective of the qualitative content analysis is to transform the transcriptions systematically into a summary of concise and structured results. Its process begins with recording the interviews, and then, the outcomes of the interviews are transcribed. After that, the experts' statements are improvised into a formally structured phrase, in which their viewpoints are still maintained.

3.4 IDENTIFICATION OF RESEARCH GAPS

The major contributing factor of this research is to provide new evidence on the link between Islamic financial sector and real economic growth by taking into account two other sectors besides IB, which are ICM and Takaful industry. Moreover, this study also considers the implementation of IFSA 2013 in the landscape of Malaysian Islamic financial system into the analysis. IFSA 2013 comes into force on 30 June 2013, and it faces a transition in policy that takes into effect on 1 July 2015, which affects profoundly the variables of Islamic financial sector development. Therefore, this study aims to fill the gaps of IF-growth studies in Malaysia in terms of the associated issue as there is very few studies that have investigated the empirical evidence on the IF-growth nexus in Malaysia by considering IFSA 2013 and other sector especially Takaful industry because it performs the very important function of offering a financial safety net in the unexpected event such as Covid-19, and currently it has become a necessity for the society (Al-Amri and Hossain, 2017). This study also enriches the existing limited studies on IF-growth in the case of Malaysia by exploring whether or not the IFSA 2013 benefits the link between the two.

Besides filling the research gap in terms of the consideration of the IFSA 2013 and other sectors into the study, this study also enriches existing studies in terms of the variables, where unlike the previous studies on the finance-growth nexus, which employ GDP value that is measured in currency as the dependent variable, *IPI* is employed to represent the economy's real sector to explore whether or not Islamic financial sector contributes to the real economy, an economy which concerns more on the production, purchasing power, and also the flow of goods and services, and this is suitable given the theoretically estimated connection amongst IF and real economic activities (Kassim, 2016).

In addition, as many studies in the IF-growth nexus have been heavily focused on IB, this study is adopting an additional variable, which is IB assets to signify the volume of the IB sector's business, besides two other variables that are used by the previous researchers, which are IB deposits and financing to represent the IB development, as the major contributing factor into the IB-growth nexus as this variable is not used widely in the area of study. The indicator chosen is in line with the study of Levine (1996), who adopts total assets of the banks to signify the business volume, and consistent with the study of Budhathoki and Rai (2020), which suggests that further studies should include more indicators to represent a variable. Last but not least, this study also provides a view on the IF-growth nexus from the perspectives of Islamic economic via debt and equity interpretation to give an economic meaning from the statistics. Table 3.3 as shown below illustrates the identifications of research gaps of the study.

Table 3.3 Identifications of Research Gaps

Section	Research Gaps
Islamic finance-growth nexus	This study explores Islamic finance-growth nexus, which focuses on three sectors (IB, ICM and Takaful) by incorporating the effect of one of the regulatory policies in Malaysia, which is IFSA 2013.
Islamic banking-growth nexus	This study adds one more variable besides <i>IBD</i> and <i>IBF</i> , which is Islamic banking assets (<i>IBA</i>) as a proxy to the IB sector. Besides, <i>IA</i> is also added as a proxy to the IB sector as a result of IFSA effect.
Islamic capital market-growth nexus	The studies on Islamic finance-growth nexus have been focusing majorly on IB sector, and there is a need to explore other sectors too to represent the IFI, hence, ICM is added in this study. Besides, IFSA effect is also added in the ICM-growth nexus, which is yet to be done by the previous works.
Takaful-growth nexus	There is lack of studies on Takaful-growth nexus, and there is a need to explore it, as attempted by this thesis. Besides, IFSA effect is also added in the Takaful-growth nexus, which is yet to be done by the

	previous works.
Islamic finance in the light of Islamic economics	This study explores IF in the perspective of Islamic economics empirically, to observe whether IF is fulfilling the macroeconomic goals from the perspective of the industrialist. This research also adds to the body of knowledge by evaluating the impact of VBI on the Malaysian economic growth via the experts' opinions.

3.5 A DERIVATION OF THE THEORETICAL MODEL BASED ON ADDITIONAL LITERATURE

Generally, the study explores IF-growth nexus for 3 sectors: 1) IB, 2) Islamic Capital Market, and 3) Takaful for both in the absence and presence of IFSA 2013. *IPI* is utilized to represent the real economic growth. *IA*, IB deposits, IB financings, and IB assets are used as the proxy for IB development, whereas *Shariáh* compliant securities and market capitalization are used as the proxy for ICM development, while assets of General and Family Takaful funds are used as the proxy for Takaful industry development.

3.5.1 Industrial Production Index (IPI)

According to Organisation for Economic Co-operation and Development (OECD) (2023), the *IPI* refers to the industrial institutions' output, which covers sectors such as manufacturing, mining, and electricity. It is measured in an index based on a reference period that expresses a change in the volume of production output. In other words, *IPI* measures real output in the manufacturing, mining, and electricity sectors, relative to a base year. It provides a summary of the current industrial activity trend and is used for economic analysis.

Bureau of Economic Analysis (BEA) (2005) stated that *IPI* values production in terms of the producers' prices that are paid to manufacturers by retailers and wholesalers, and, in the case of direct sales, by consumers, while GDP values production in terms of consumers' prices, the final prices paid by consumers and other final-demand sectors. *IPI* is chosen as a proxy to the real economic growth because it reflects the producer's side, which is more reflecting the real growth as it helps to measure real output in the leading sectors, which are mining, manufacturing, gas, and electric industries. The Federal Reserve Bank of St. Louis once stated that resources, which encompassed oil

and gas, coal, metals, and other commodities, together with capital goods, which incorporated manufacturing tools, equipment, and machinery, as well as labour and entrepreneurship were the building blocks of the economy as they were what the people utilized to produce goods and services (Ross, 2022). Moreover, according to Drishti (2022), *IPI* is the only measure of production's physical volume, and it is used by the government agencies including the Reserve Bank of India, and Ministry of Finance, for policy making purposes. Moreover, *IPI* is measured in ratio, which avoids inflation issue, and provides more relevant information compared to raw financial data (Ingram, 2019).

IPI, which is measured in an index based on a reference period will act as the dependent variable of the analysis. This is reasonable given the theoretically anticipated relationship amongst IF and the real economic activities as suggested by Karim et al. (2021), Kassim (2016), Bougatef et al. (2020), and Adzimatinur and Manalu (2021).

3.5.2 Islamic Banking Sector

For IB sector, four IB development indicators and several major macroeconomic indicators are considered for the independent variables. Firstly, *IA* and Islamic banking deposits (*IBD*) to capture the ability of the Islamic banks to mobilize funds from the surplus units of the economy considering the new regulations from IFSA 2013. Secondly, Islamic banking financings (*IBF*) is adopted as an indicator to signify the Islamic banks' capabilities to finance real economic activities. Thirdly, Islamic banking assets (*IBA*) is included to depict the volume of the Islamic banks' business. These four indicators are chosen as they utilize various kinds of shariah-compliant financial products and instruments, and they are measured in Malaysian currency, which is RM (millions).

The variables are chosen in accordance with the previous research in this field such as Furqani and Mulyany (2009), Abduh et al. (2012), Abduh and Omar (2012), Abdul Manap et al. (2012), Yusof and Bahlous (2013), Kassim (2016), Husin (2020), Yusof and Loong (2020), and Budhathoki and Rai (2020). In addition, Figure 3.2 shows the significance of each variable in the Malaysian banking system, where *IBD* and *IA* account for 38.9% of the total deposits, while *IBF* account for 41% of the total deposit, and *IBA* account for 34.2% of the total assets in 2020 (BNM, 2020). It can also be seen

that the annual growth of *IBD* and *IBF* as well as *IA* is much higher than the conventional counterpart.

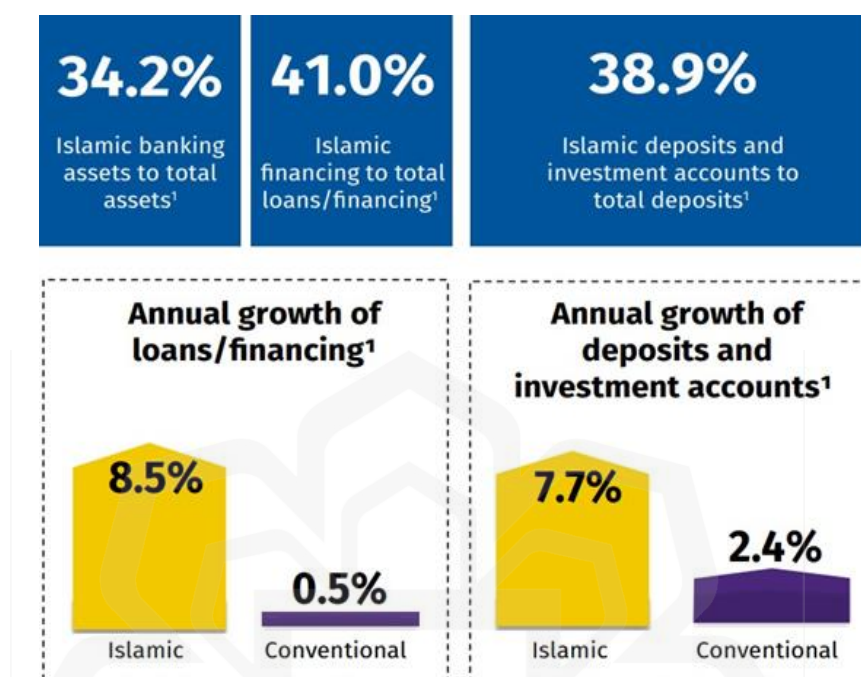


Figure 3.2 IB's Growth from 2007 – 2020
Source: BNM (2020)

3.5.3 Islamic Capital Market Sector

To symbolize the ICM industry development, this study measures the level of size and liquidity of the Islamic capital market, which is in line with the studies led by Agarwal and Mohtadi (2007), Enisan and Olufisayo (2009) as well as Nowbutsing and Odit (2009), which examined the stock market-growth nexus. This study uses the total *Shari'ah* compliant market capitalization (*SCMC*), which is measure in RM (millions) as the first variable to calculate the ICM size. The hypothesis behind this calculation is that the size of the overall market is associated positively with the capability to diversify risk and organize capital on an economy- wide ground. In addition, the total number of *Shari'ah* compliant securities (*SCS*) is employed as the second variable to calculate the market liquidity, where it will be complementing the market capitalization ratio. The hypothesis behind this calculation is that there may be little trading although the market's size is large.

3.5.4 Takaful Sector

Last but not least, to represent the Takaful industry development, two variables are used to represent Takaful penetration, and they are total assets of family Takaful funds (*AFT*) and total assets of general Takaful funds (*AGT*), which are measured in RM (millions), in line with the study of Webb (2000), Curak et al. (2009), Azman and Smith (2011), Ojo, M. (2012), Hou et al. (2012), Kjosevski, J. (2012), Yinusa, O., & Akinlo, T. (2013), Alhassan, A. L. (2016) in the insurance-growth nexus.. Family takaful is defined as a grouping of long-term savings as well as protection for the participants and their dependents, which arise from disability, death, or survival. On the contrary, general takaful concentrates on properties and liabilities' short-term protection against any loss.

3.5.5 Macroeconomic Indicators

Three major economic indicators are also included in the model to avoid the problem of biasness due to omitted variables as well as to control for the possible effects of other growth determining factors, and they are private investment (*PI*), trade balance (*TB*), and inflation (*INF*). Firstly, private investment (*PI*), which is measured in percentage (%) of import of investment goods, which include capital goods, machinery for industry, and transport equipment, is added as a proxy for private investment as the available data is more frequent (monthly). It is considered as one of the major channels through which financial intermediaries may influence the real economic growth. Government expenditure can lead to a budget deficit, which will then negatively affect the growth as it has the potential of crowding-out *PI*, but if it is carried out effectively, it may positively affect the growth. Solow Framework (1956) proposed that investment increases the capital stock, and the amount of capital that is accessible to an economy is a key factor in determining its productivity, and hence, investment supports the economic growth.

Secondly, a nation's trade balance (*TB*) is determined by deducting the value of imports from the value of exports and is expressed in RM (millions). It is contended to positively affect the growth by giving the domestic businesses an access to the international markets. *TB* is selected as a proxy to trade because the available data is more frequent (monthly). According to traditional trade theory, countries that are more open to trade will

experience growth gains through specialisation, investment in innovation, increased productivity, or better resource allocation. Numerous studies have found that the deterioration of *TB* will reduce the average economic growth, and vice versa. Lastly, inflation, which is measured in percentage (%), implies economic market stability, which determines savings, investments, and consumption decisions. According to the Neoclassical Theory of Labour Supply, increasing the price of consumption relative to the cost of leisure will cause consumers to switch from consumption to leisure, lowering the labour supply, which will then reduce the investment efficiency and growth rate. In most studies, general government expenditure or gross fixed capital formation, and trade openness are used as the macroeconomic indicators but since the data are on those indicators are not available on monthly basis due to Personal Data Protection Act (PDPA), *PI* and *TB* are preferred for analysis purposes.

3.6 CONCLUSION

This chapter describes and appraises theoretical and empirical backgrounds on the mechanism of how IF affects economic growth. This chapter begins by reviewing the Islamic economics background, the key issues in the Islamic financial system, and the two groups on Islamic financial system critics. This chapter further explores the numerous studies related to the IF- growth nexus both quantitatively and qualitatively, where the summary is illustrated in Appendix A.

Majority of the studies on IF-growth nexus in Islamic countries have examined the causal link between IB industry and economic development, especially in Malaysia. However, there is very few studies on IF-growth nexus in Malaysia that investigates empirical evidence on Islamic capital market-growth nexus, and Takaful-growth nexus. Hence, this study incorporates ICM and Takaful sector, besides IB sector as a proxy to IF in the study of Islamic finance-growth nexus. Furthermore, there are also limited studies on IF-growth nexus by considering the implementation of IFSA 2013. Therefore, this research tries to fill the gap of IF-growth studies in Malaysia, in that context via research objectives 1 and 2.

Meanwhile, this study also explores IF in the perspective of Islamic economics empirically, to observe whether IF is fulfilling the macroeconomic goals from the

perspective of the industrialist via research objective 3. In addition, this chapter further highlights several studies that use different econometric methods to explore the mechanisms of IF and growth, which include times-series analysis, broad cross-country growth regressions, detailed country studies, panel data analysis, and quantile-based analysis. Last but not least, this chapter explains on the derivation of the theoretical model based on additional literature, where several works are highlighted to justify the variables chosen for this study, which includes *IPI*, *IA*, *IBD*, *IBF*, *IBA*, *SCMC*, *SCS*, *AGT*, *AFT*, *PI*, *TB*, and *INF*. The next chapter is explaining the methodology used to analyse the Islamic finance-growth nexus before and after the implementation of IFSA 2013 as well as the experts' opinions on the IF in the light of Islamic economics' goals.



CHAPTER FOUR

METHODOLOGY

4.1 INTRODUCTION

Chapter 4 provides the information regarding the methodology employed in the study to achieve the overall objectives of this study. To reiterate, with the general objective of this research, which is to explore the relationship of Islamic financial sector and Malaysian economic growth, this study adopts the method of quantitative research, where secondary data are collected from various official websites and qualitative research, where primary data are collected from a mix of stakeholders' views such as practitioners and academicians of IB and finance area via interview. To recall, the research objectives (RO) are:

RO1: What is the relationship of each component of Islamic financial sector (IB, ICM and Takaful) and real economic growth in Malaysia in the short-run and long-run?

RO2: Has the introduction of IFSA 2013 had a significant effect on each of the three sectors of IF (IB, ICM and Takaful) and real economic growth in Malaysia in the short-run and long-run?

RO3: Does IF fulfil the goals of Islamic economics?

Chapter 4 is organized into 2 sections: 1) Quantitative Study, and 2) Qualitative Study. Quantitative study is adopted to answer RO1 and RO2, with two main methods; 1) ARDL for IB and ICM sectors, which consists of five divisions, which include conceptual framework, data and variables, model specification, estimation techniques, and 2) Pearson Correlation method for Takaful sector. Meanwhile, qualitative study is adopted to answer research objective 3, and it consists of two divisions, which include between-study literature analysis and interview. Figure 4.1 illustrates the methodology process. Lastly, the conclusion ends this chapter.

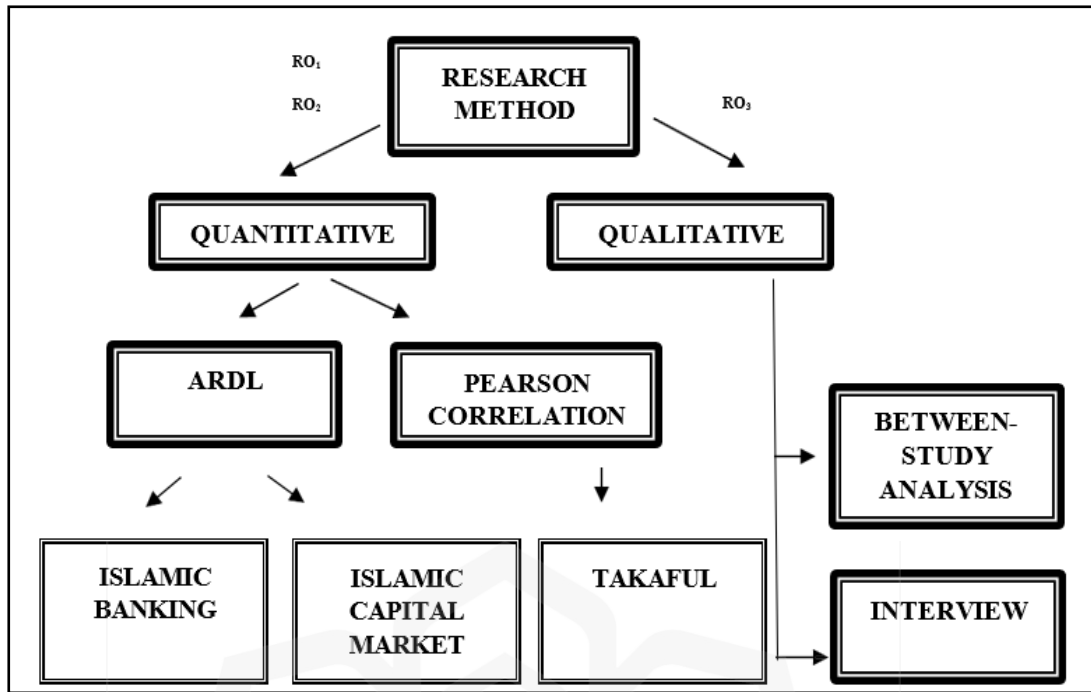


Figure 4.1 Methodology Process

4.2 QUANTITATIVE STUDY

4.2.1 Conceptual Framework

In this quantitative part of the study, a conceptual framework, which is designed based on the RO₁ and RO₂ of the study is developed:

4.2.1.1 Conceptual Framework of the Study

The study explores IF-growth nexus for 3 sectors: 1) IB, 2) ICM, and 3) Takaful for both before and after the implementation of IFSA 2013. Figure 4.2 illustrates the conceptual framework of the study for RO₁ and RO₂. The framework consists of dependent variable, independent variables, and controlled variables.

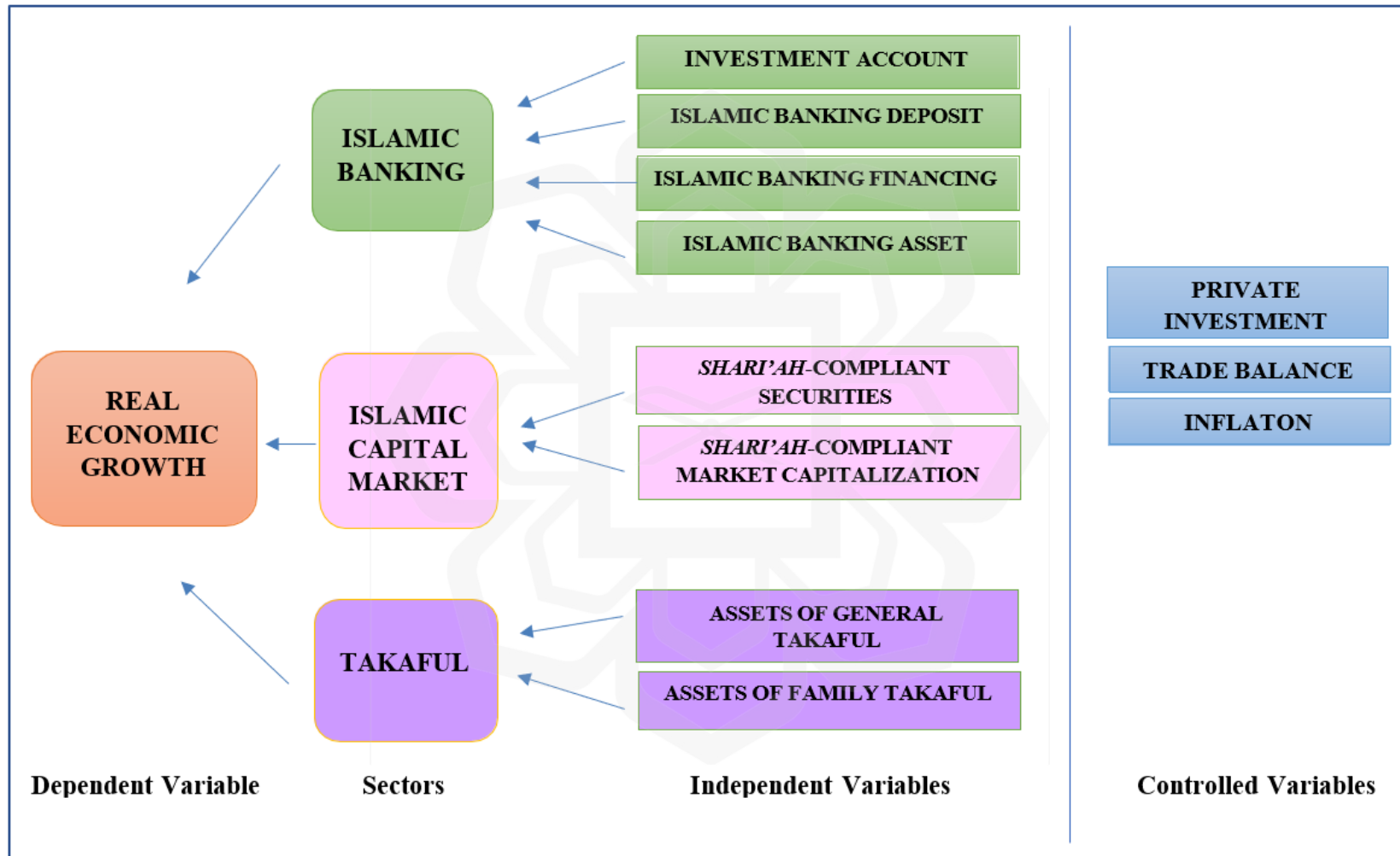


Figure 4.2 Conceptual Framework for RO1 and RO2

4.2.1.2 Hypothesis Building

As an analytical framework, this study will use existing theory of the finance-growth relationship, where the most significant scholars who contributed to the theoretical underpinnings that prompted the growth of the body of literature on the subject were Schumpeter (1912), Goldsmith (1969), McKinnon (1973), Shaw (1973), and King and Levine (1993). They viewed the services provided by financial systems as very crucial to both savers and entrepreneurs. They asserted that the fundamental factor behind the successful innovation and long-run economic growth is the financial sector. However, not all economist has hypothesized that the growth of the financial organizations and markets will contribute to the growth of the economy, and this includes Robinson (1952) and Lucas (1988) for instances. Pradhan et al. (2017) mentioned that earlier studies failed to provide a conclusive or decisive evidence because there were always distinct findings and results between the research in that particular area.

According to Dusuki and Abozaid (2007), Islamic financial system is also supposed to positively affect the growth of the economy as it is developed based on the Islamic principles, which ruled to satisfy the *Maqasid Shari'ah* that focuses on consciousness and spiritual health, as well as fair play and justice at all levels of human transactions. The consensus on IF-growth nexus remains divided, and RO₁ and RO₂ will shed light on how IF impacts growth in Malaysia. To answer RO₁ and RO₂, the following hypotheses are developed:

4.2.1.2.1 Islamic Banking

Table 4.1 depicts the hypotheses for IB sector for both answer RO₁ and RO₂.

Table 4.1 Hypotheses for IB Sector

RO	Variables	Null Hypothesis (H ₀)	Alternative Hypothesis (H ₁)
RO ₁	Investment Account (IA)	IA not significantly affect IPI in the short/long run	IA significantly affect IPI in the short/long run
	IB Deposit (IBD)	IBD not significantly affect IPI in the short/long run	IBD significantly affect IPI in the short/long run
	IB Financing (IBF)	IBF not significantly affect IPI in the short/long run	IBF significantly affect IPI in the short/long run
	IB Asset (IBA)	IBA not significantly affect IPI in the short/long run	IBA significantly affect IPI in the short/long run

RO ₂	Investment Account (IA)	IA not significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run	IA significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run
	IB Deposit (IBD)	IBD not significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run	IBD significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run
	IB Financing (IBF)	IBF not significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run	IBF significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run
	IB Asset (IBA)	IBA not significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run	IBA significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run

4.2.1.2.2 Islamic Capital Market

Table 4.2 depicts the hypotheses for ICM sector for both answer RO₁ and RO₂.

Table 4.2 Hypotheses for ICM Sector

RO	Variables	Null Hypothesis (H ₀)	Alternative Hypothesis (H ₁)
RO ₁	<i>Shari'ah</i> -compliant Market Capitalization (SCMC)	SCMC not significantly affect <i>IPI</i> in the short/long run	SCMC significantly affect <i>IPI</i> in the short/long run
	<i>Shari'ah</i> -compliant Securities (SCS)	SCS not significantly affect <i>IPI</i> in the short/long run	SCS significantly affect <i>IPI</i> in the short/long run
RO ₂	<i>Shari'ah</i> -compliant Market Capitalization (SCMC)	SCMC not significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run	SCMC significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run
	<i>Shari'ah</i> -compliant Securities (SCS)	SCS not significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run	SCS significantly affect <i>IPI</i> post-IFSA 2013 in the short/long run

4.2.1.2.3 Takaful

Table 4.3 depicts the hypotheses for Takaful sector for both before and after the implementation of IFSA 2013.

Table 4.3 Hypotheses for Takaful Sector

RO	Variables	Null Hypothesis (H ₀)	Alternative Hypothesis (H ₁)
RO ₁	Assets of General Takaful Funds (AGT)	AGT not significantly affect <i>IPI</i>	AGT significantly affect <i>IPI</i>
	Assets of Family Takaful Funds (AFT)	AFT not significantly affect <i>IPI</i>	AFT significantly affect <i>IPI</i>
RO ₂	Assets of General Takaful Funds (AGT)	AGT not significantly affect <i>IPI</i> after the implementation of IFSA 2013	AGT significantly affect <i>IPI</i> after the implementation of IFSA 2013
	Assets of Family Takaful Funds (AFT)	AFT not significantly affect <i>IPI</i> after the implementation of IFSA 2013	AFT significantly affect <i>IPI</i> after the implementation of IFSA 2013

4.3 DATA AND VARIABLES

4.3.1 Data Collection

Based on the empirical literature, there are typically three leading approaches to analyze the nexus between IF and economic growth, which are cross-section, time-series, and panel data studies. This study however follows the recommendation of many researchers, which is to use time-series techniques to identify the IF-growth nexus. 156 number of observations are used, representing monthly period from January 2007 to December 2019 for IB sector, while 52 number of observations are used, representing quarterly period from January 2007 to December 2019 for ICM sector, and lastly for Takaful sector, 22 number of observations are used, representing half-yearly period from January 2007 to December 2019. Although there is limitation in data for Takaful sector, it is supported by the interview session with several notable practitioners and academicians in the industry. The data for IB and capital market sectors will be analyzed using E views software, which is typically used as the statistical software for conducting time series tests and creating the time series models. It is well-documented and widely used for executing time series analysis. Meanwhile, the data for Takaful will be analysed with Statistical Package for the Social Science (SPSS), which permits the management of the statistical data in the absence of calculation formulas.

4.3.2 List of Variables

As explained earlier, this research attempts to examine the effect IF on the real economic growth in Malaysia. For the quantitative analysis, which involves research questions 1 and 2, the study utilises monthly/quarterly/half-yearly data from January 2007 to December 2019 for IB, Islamic capital market, and Takaful sectors respectively. The research excludes the data on the year 2020 as it is considered as an outlier data due to COVID-19, which will disturb the overall results.

To ensure a meaningful analysis, the data for all variables are transformed into natural logarithm, except for PI and INF, which are a rate and contain negative values, and hence cannot be logged because mathematically, the function $\ln(x)$ is undefined for

$x < 0$, and it defined only for $x > 0$ (Osborne, 2010). Table 4.4 describes the data and their respective sources:

Table 4.4 Data and Data Sources

Variables	Indicators	Abbreviations	Measurements	Data Sources
Growth of Real Economy	Malaysian Industrial Production Index	<i>IPI</i>	Index	Utilized from various issues of BNM Monthly Highlights and Statistics (previously known as BNM Monthly Statistical Bulletin) (Monthly data from January 2007 to December 2019 for IB sector and half-yearly data from January 2009 to December 2019 for Takaful sector)
IB	Investment Account	<i>IA</i>	RM million	
	IB Deposits	<i>IBD</i>		
	IB Financings	<i>IBF</i>		
	IB Assets	<i>IBA</i>		
Takaful	Total assets of General Takaful funds	<i>AGT</i>	RM million	
	Total assets of Family Takaful funds	<i>AFT</i>		
Islamic Capital Market	Total number of <i>Shariáh</i> -compliant securities	<i>SCS</i>	Total number	Utilized from Securities Commission
	Total <i>Shariáh</i> -compliant market capitalization	<i>SCMC</i>	RM million	
Other Macroeconomic Variables	Private Investment	<i>PI</i>	%	Utilized from BNM Monthly Highlights and Statistics
	Trade Balance	<i>TB</i>	RM million	
		Inflation Rate	<i>INF</i>	%

4.4 MODEL SPECIFICATION

Based on the conceptual framework that is described in the previous section, this section specifies the model that will be used in the study. The investigation of IF-growth nexus will be used to answer the first research objective, which is to investigate the relationship of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs, and also the second research objective, which is to analyze whether there is any difference between the relationship of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.

In terms of model construction for the first research objective, the following equations (1), (2), (3), (4) for IB, (5) and (6) for Islamic capital market, and (7) for Takaful industry sectors, respectively, are developed and generally used for the analysis:

Islamic Banking:

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(IA)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (1)$$

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(IBD)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (2)$$

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(IBF)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (3)$$

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(IBA)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (4)$$

Islamic Capital Market:

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(SCS)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (5)$$

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(SCMC)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (6)$$

Takaful (before the implementation of IFSA 2013):

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(AGT + AFT)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (7)$$

Takaful (after the implementation of IFSA 2013):

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(AGT)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (8)$$

$$\ln(IPI)_t = \beta_0 + \beta_1 \ln(AFT)_t + \beta_2 \ln(TB)_t + \beta_3 (PI)_t + \beta_4 (INF)_t + \mu_t \quad (9)$$

Where,

$\ln(IPI)_t$ = Natural Logarithm of IPI at time t .

$\ln(IA)_t$ = Natural Logarithm of Total *IA* at time *t*.

$\ln(IBD)_t$ = Natural Logarithm of Total *IBD* at time *t*.

$\ln(IBF)_t$ = Natural Logarithm of Total *IBF* at time *t*.

$\ln(IBA)_t$ = Natural Logarithm of Total *IBA* at time *t*.

$\ln(SCS)_t$ = Natural Logarithm of Total *SCS* at time *t*.

$\ln(SCMS)_t$ = Natural Logarithm of Total *SCMC* at time *t*.

$\ln(AGT + AFT)_t$ = Natural Logarithm of (*AGT* + *AFT*) at time *t*.

$\ln(TB)_t$ = Natural Logarithm of *TB* at time *t*.

$(PI)_t$ = Year on year changes of *PI* at time *t*.

$(INF)_t$ = *INF* at time *t*.

μ_t = Residual of model over the time or error terms.

β_0 = Constant or intercept.

β_j = Coefficients.

t = Time dimension.

β_j , the coefficients which depict the degree of change in the dependent variable for every 1-unit of change in the independent variable, are expected to be positive given the anticipated theories that are explained in the previous chapter. On the other hand, in terms of model construction for the second research objective, the period from 2007 – 2019 is divided into two phases; 1) pre-IFSA 2013, which covers the period from 2007 – 2013 and 2) Post-IFSA 2013, which covers the period from 2015 – 2019 for IB sector, while for ICM sector, the period is from 2014 – 2019. Meanwhile, for Takaful sector, the *AGT* and *AFT* funds are separated as enacted by IFSA 2013 to provide greater growth opportunities. No dummy is included for Takaful sector as Pearson Coefficient Correlation is adopted due to a small sample size. To analyse the difference between before and after IFSA 2013 for Takaful sector, the period of study is divided into two; 1) The period before IFSA 2013, which is from 2009 – 2013, and 2) The period after IFSA 2013, which is from 2013 – 2019. The preceding equations (1), (2), (3), (4) for

IB, (5) and (6) for Islamic capital market, and (8) and (9) for Takaful industry sectors, respectively, are generally used for the analysis of the second research objective.

4.5 ESTIMATION TECHNIQUES

For research objectives 1 and 2 (IB and ICM sectors), this study adopts the ARDL bounds testing method, couples with relevant diagnostic analyses, which include LM Auto-Correlation Test, Ramsey Reset, Cumulative Sum of Recursive Residuals (CUSUM) and the CUSUM of Squares (CUSUMSQ) stability evaluations, Autoregressive Conditional Heteroscedasticity (ARCH), and Multicollinearity Tests to ensure the regression model is valid as a predictor.

Usually, the ARDL method is adopted for two reasons. To begin with, the bounds diagnosing process does not require the pretesting of the variables that are involved in unit-roots' model. In addition, it can distinguish the dependent and independent variables, and allow the method to check for the presence of connection amongst the variables in level regardless of whether the original regressors are $I(0)$, $I(1)$ or mutually cointegrated. Next, ARDL method is found to be relatively more effective in small or finite sample data size as in the case of this study. Furthermore, it can also evaluate both short- and long-run relationships in IB-growth model simultaneously.

The ARDL bounds approach of M. H. Pesaran, Shin, and Smith (2001) has several requirements that lead to be considered by lots of researchers and because of its advantages over the conventional cointegration testing:

1. It is functional with $I(0)$, or $I(1)$ data, and the combination of the two.
 2. It is based on a single equation, and therefore, it is easier to apply and interpret.
 3. Different variables might be allocated with different lag-lengths depending on how they are used in the model.
- a. The complete steps for the ARDL testing are exemplified as follows:

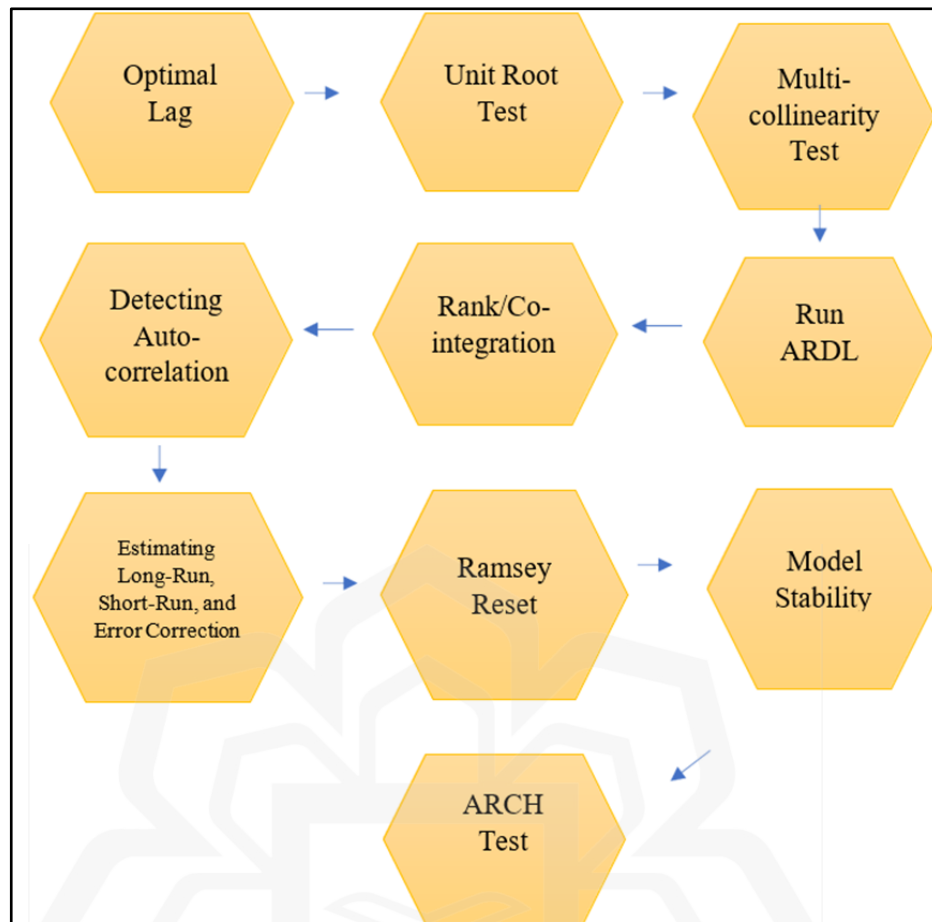


Figure 4.3 Steps for ARDL Analysis

4.5.1 Optimal Lag

According to Green (2003), the study will explore the short-run and long-run elasticities after verifying the presence of a long-run link among variables in the model. In the first stage, the best lag length should be determined using Akaike information criterion (AIC) or Schwarz information criterion (SIC) criteria while taking into account the bound test results.

Arshed (2014) stated that the first step in ARDL is to check for the lag order to see what lag is used to the ADF test for each variable that is being used in the model. This is done using Vector Auto Regressive Specification Order Criterion (VARSOC) table.

4.5.2 Unit Root Test

Statistically, unit-root tests are established to study if a variable value must be integrated of order 1, $I(1)$, or forecasted on a deterministic equation of time to approve the stationary of its data. Usually, economic theories usually suggest the long-run equilibrium equation amongst the non-stationary time series data (Caner and Kilian, 2001).

Table 4.5 displays the unit-root tests' measurement that can be used to find the data's order of integration. The unit-root method from Levin, Lin, and Chu (LLC) assumes that there exists a common unit-root across the cross-sections, while Fisher-Augmented Dickey-Fuller (ADF), Im, Pesaran, and Shin (IPS), and Fisher-Phillips-Perron (PP) methods assume that there exist individual unit-roots across the cross sections. All of these unit-root approaches use the null hypothesis of the presence of unit-root or the stationary of order one ($I(1)$), which means that normal level of variables is poor without enough information if a study fails to reject the null hypothesis. On the other hand, a meaningful p-value says that the data that is integrated order zero ($I(0)$) is stationary.

Table 4.5 Unit Root Testing Procedure

Statistic	Test Equation	Null Hypothesis	Alternative Hypothesis
LLC	Common unit root process	There is unit root and series are non-stationary	There is no unit root and series are stationary
IPS	Individual unit root process	There is unit root and series are non-stationary	There is no unit root and series are stationary
Fisher-ADF	Individual unit root process	There is unit root and series are non-stationary	There is no unit root and series are stationary
Fisher-PP	Individual unit root process	There is unit root and series are non-stationary	There is no unit root and series are stationary

Source: Caner and Kilian (2001)

Which case to apply can be determined by considering the visual inspection of the theory and data. If a theory supports a certain null hypothesis, the appropriate case can be chosen according to that. In addition, if a data graph shows an increasing trend over time, then case four will be preferable. Finally, if the data values do not show a trend but have a non-zero mean, then the other cases will be acceptable substitutes.

This study adopts both ADF and PP tests. ADF tests differ from the PP tests mainly in how they deal with serial correlation and heteroskedasticity in the errors. In

terms of serial correlation, ADF test can be used with serial correlation while PP test ignores any serial correlation in the test regression. On the other hand, in terms of the heteroskedasticity, PP test is more robust to heteroskedasticity's general forms in the error term, μ_t compared to ADF test (Caner and Kilian, 2001). Although ADF test is the most common test to test for unit root as it can handle more complex data and larger sample size, PP test is the most common alternative to the ADF test due to its nature as a non-parametric test, and hence, there is no need to specify the model and lagged parameter in the test regression. Both ADF and PP tests are adopted in the study to compare and strengthen the results.

4.5.3 Multicollinearity Test

Multicollinearity happens when two or more independent variables in the regression model are correlated with each other. When correlation exists, the coefficients of the variables' standard error will increase and consequently their variance will inflate. To quantify and measure how much the variance is inflated, Variable Inflation Factors (VIF) is used, where it is calculated by the software as part of regression analysis. VIF is adopted over correlation matrix to test for the multicollinearity issue because unlike correlation matrix, VIF is not restricted to pairwise effects (1-to-1 pairwise comparison) as this study has more than two independent variables, and it also quantifies the extent of correlation between one variable and the other variables in a regression model (Mansfield and Helms, 1982). Table 4.6 depicts the rule that is used to interpret VIF.

Table 4.6 VIF Interpretation

VIF-value	Conclusion
VIF = 1	Not correlated
$1 < \text{VIF} \leq 10$	Moderately correlated
VIF > 10	Highly correlated

Source: (Daoud, 2017)

Furthermore, the square root of VIF is used to show whether the variables are correlated, where it indicates how much bigger the standard error is, for instance, if VIF = 9, it means that the standard error for the variables' coefficient is 3 times as large as it will be if that variable is uncorrelated with other variables. The formula for VIF is illustrated in equation (10):

$$VIF = \frac{1}{1-R_i^2} \quad (10)$$

Where R_i^2 is the unadjusted determination's coefficient. For each variable in the model, the VIF can be calculated, and the technique is to regress the variable by assuming it is i^{th} variable against all other variables. Then, R_i^2 can be estimated, which is then used to find the VIF.

4.5.4 Autoregressive Distributed Lag (ARDL)

The ARDL method is divided into three phases. The first step is to determine whether the variables in the equation system are cointegrated. In order to confirm the cointegration as developed by Pesaran et al. (2001), the long-run equation must first be identified as a VAR equation of order ρ , in order to verify for the presence of a long-run or a level connection between variables. The long-run model that is built for *IA*, *IBD*, *IBF*, and *IBA* models for IB sector, and *SC* and *SCMC* for ICM sector upon building the long-run relationship for research question 1 and 2 is shown in equation (11) to (16):

Islamic Banking:

$$\ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \ln(IA)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} (INF)_{t-i} + \mu_t \quad (11)$$

$$\ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \ln(IBD)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} (INF)_{t-i} + \mu_t \quad (12)$$

$$\ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \ln(IBF)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} (INF)_{t-i} + \mu_t \quad (13)$$

$$\ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \ln(IBA)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} (INF)_{t-i} + \mu_t \quad (14)$$

Islamic Capital Market:

$$\ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \ln(SCS)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} (INF)_{t-i} + \mu_t \quad (15)$$

$$\ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \ln(SCMC)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} (INF)_{t-i} + \mu_t \quad (16)$$

4.5.4.1 Bound Test

The main goal of running an ARDL model is to utilise it as a foundation for doing a bound test, which is the F-test involves evaluating the conditional “unrestricted error correction model” (UECM) and determining if the dependent variable and independent variables have a long-run relationship. The equations of UECM with are as follows:

Islamic Banking:

$$\Delta \ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(IA)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} + \lambda_1 \ln(IPI)_{t-i} + \lambda_2 \ln(IA)_{t-i} + \lambda_3 \ln(TB)_{t-i} + \lambda_4 (PI)_{t-i} + \lambda_5 (INF)_{t-i} + \mu_t \quad (17)$$

$$\Delta \ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(IBD)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} + \lambda_1 \ln(IPI)_{t-i} + \lambda_2 \ln(IBD)_{t-i} + \lambda_3 \ln(TB)_{t-i} + \lambda_4 (PI)_{t-i} + \lambda_5 (INF)_{t-i} + \mu_t \quad (18)$$

$$\Delta \ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(IBF)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} + \lambda_1 \ln(IPI)_{t-i} + \lambda_2 \ln(IBF)_{t-i} + \lambda_3 \ln(TB)_{t-i} + \lambda_4 (PI)_{t-i} + \lambda_5 (INF)_{t-i} + \mu_t \quad (19)$$

$$\Delta \ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(IBA)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} + \lambda_1 \ln(IPI)_{t-i} + \lambda_2 \ln(IBA)_{t-i} + \lambda_3 \ln(TB)_{t-i} + \lambda_4 (PI)_{t-i} + \lambda_5 (INF)_{t-i} + \mu_t \quad (20)$$

Islamic Capital Market:

$$\Delta \ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(SCS)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} + \lambda_1 \ln(IPI)_{t-i} + \lambda_2 \ln(SCS)_{t-i} + \lambda_3 \ln(TB)_{t-i} + \lambda_4 (PI)_{t-i} + \lambda_5 (INF)_{t-i} + \mu_t \quad (21)$$

$$\Delta \ln(IPI)_t = \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(SCMC)_{t-i} + \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} +$$

$$\lambda_1 \ln(IPI)_{t-i} + \lambda_2 \ln(SCMC)_{t-i} + \lambda_3 \ln(TB)_{t-i} + \lambda_4(PI)_{t-i} + \lambda_5(INF)_{t-i} + \mu_t \quad (22)$$

The terms with the summation signs in equations (17) and (22) represent the error correction dynamic, while the second part of the equations (term with λ_i) corresponds to the long-run relationship. The F-statistic test is used in this test to examine the joint significance of lagged-levels of variables in UECM, and to check for the presence of the long-run equilibrium under the null hypothesis versus the alternative hypothesis. The following are the null and alternative hypotheses of the F-test based on equations:

Islamic Banking and Islamic Capital Market:

H₀: $\lambda_1 = \lambda_2 = \lambda_3 = \lambda_4 = \lambda_5 = 0$ (No long run relationship / there is no co-integration)

H₁: $\lambda_1 \neq \lambda_2 \neq \lambda_3 \neq \lambda_4 \neq \lambda_5 \neq 0$ (There is a long run relationship / there is co-integration)

Henceforth, regardless of the orders of variables. if the F-statistic is higher than the upper critical value, which is based on Pesaran (2001) for IB sector in the absence of IFSA 2013, and Narayan (2004) for ICM sector and the period of pre- and post-IFSA 2013, the null hypothesis of no cointegration can be rejected, and the applied variables are concluded to be cointegrated.

In contrast, the null hypothesis cannot be rejected if the F-statistics test result is not significant, and the variables are concluded to be not cointegrated. Finally, if the F-statistics test result falls between the two limits, the result is concluded to be ambiguous, and a further evaluation of the integration order of variables is required to determine if the variables are I(0) or I(1). The critical values' output varies depending on the number of regressors and whether the ARDL includes an intercept, or both intercept and trend (M. H. Pesaran, Shin, and Smith 2001).

When the bound test confirms a long-run connection, the long-run and the associated short-run relationships can be explored in the following stage, which is a suitable information criteria/technique must be used to determine the best lag-length for all variables in the model. Then, the last stage is to examine the ARDL and the related error correction model, which includes error correction of the long-run estimation and “timing variable” as in the VECM Equation.

4.5.4.2 Error Correction Model (ECM)

In ARDL, Sims (1980) has questioned the use of Vector Autoregression (VAR) and pointed out that when exogenous variables are included in the residual or error term (μ), VAR models provide an over-fit type of analytical result although it is a prevalent approach in macroeconomics. However, Greene (2003) stipulates that the models are well-known for their use in Granger-Causality as well as in studying impulse response characteristics.

This study can examine the presence of conditional long-run efficiency and then the existence of an adjustment process within the Error Correction Model (ECM) by using cointegration analysis. The term error-correction refers to the last-period's deviation from a long-run equilibrium, the error, affects its short-run dynamics (Alogoskoufis and Smith, 1991). Thus, ECMs directly estimate the speed at which a dependent variable returns to equilibrium after a change in other variables. By analysing an ECM model whilst getting long-run finding (α_1) simultaneously, the formulas as shown below can deliver the dynamic “short-run” coefficient. In addition, in attaining equilibrium level, the coefficients of lag 1 error correction term (ECT), $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$, and α_6 from equations (23) to (34) can provide the speed of adjustment for *IA, IBD, IBF*, and *IBA* (IB), and SC and SCMC (Islamic capital market) models respectively, for research question 1 and 2, as shown in the following equations:

Islamic Banking:

$$\begin{aligned} \Delta \ln(IPI)_t = & \beta_0 + \sum_{i=0}^p \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^p \beta_{i2} \Delta \ln(IA)_{t-i} + \\ & \sum_{i=0}^p \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^p \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^p \beta_{i5} \Delta (INF)_{t-i} + \alpha_1(ECT)_{t-1} + \\ & \mu_t \end{aligned} \quad (23)$$

$$\begin{aligned} \Delta \ln(IPI)_t = & \beta_0 + \sum_{i=0}^p \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^p \beta_{i2} \Delta \ln(IBD)_{t-i} + \\ & \sum_{i=0}^p \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^p \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^p \beta_{i5} \Delta (INF)_{t-i} + \alpha_2(ECT)_{t-1} + \\ & \mu_t \end{aligned} \quad (24)$$

$$\begin{aligned} \Delta \ln(IPI)_t = & \beta_0 + \sum_{i=0}^p \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^p \beta_{i2} \Delta \ln(IBF)_{t-i} + \\ & \sum_{i=0}^p \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^p \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^p \beta_{i5} \Delta (INF)_{t-i} + \alpha_3(ECT)_{t-1} + \\ & \mu_t \end{aligned} \quad (25)$$

$$\begin{aligned}\Delta \ln(IPI)_t = & \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(IBA)_{t-i} + \\ & \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} + \alpha_4(ECT)_{t-1} + \\ & \mu_t\end{aligned}\quad (26)$$

Islamic Capital Market:

$$\begin{aligned}\Delta \ln(IPI)_t = & \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(SCS)_{t-i} + \\ & \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} + \alpha_5(ECT)_{t-1} + \\ & \mu_t\end{aligned}\quad (27)$$

$$\begin{aligned}\Delta \ln(IPI)_t = & \beta_0 + \sum_{i=0}^{\rho} \beta_{i1} \Delta \ln(IPI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i2} \Delta \ln(SCMC)_{t-i} + \\ & \sum_{i=0}^{\rho} \beta_{i3} \Delta \ln(TB)_{t-i} + \sum_{i=0}^{\rho} \beta_{i4} \Delta (PI)_{t-i} + \sum_{i=0}^{\rho} \beta_{i5} \Delta (INF)_{t-i} + \alpha_6(ECT)_{t-1} + \\ & \mu_t\end{aligned}\quad (28)$$

Where ECT is the error correction term, and the ECT equations are shown as follows:

Islamic Banking:

$$ECT = \ln(IPI) - [\beta_2 \ln(IA) + \beta_3 \ln(TB) + \beta_4(PI) + \beta_5(INF) + C] \quad (29)$$

$$ECT = \ln(IPI) - [\beta_2 \ln(IBD) + \beta_3 \ln(TB) + \beta_4(PI) + \beta_5(INF) + C] \quad (30)$$

$$ECT = \ln(IPI) - [\beta_2 \ln(IBF) + \beta_3 \ln(TB) + \beta_4(PI) + \beta_5(INF)] + C] \quad (31)$$

$$ECT = \ln(IPI) - [\beta_2 \ln(IBA) + \beta_3 \ln(TB) + \beta_4(PI) + \beta_5(INF) + C] \quad (32)$$

Islamic Capital Market:

$$ECT = \ln(IPI) - [\beta_2 \ln(SCS) + \beta_3 \ln(TB) + \beta_4(PI) + \beta_5(INF) + C] \quad (33)$$

$$ECT = \ln(IPI) - [\beta_2 \ln(SCMC) + \beta_3 \ln(TB) + \beta_4(PI) + \beta_5(INF) + C] \quad (34)$$

4.5.4.3 LM Auto-Correlation Test

Because the current study focuses on time-series analysis, another important consideration is to check whether there is serial correlation at residuals or not by investigating the correlation between the errors (Wooldridge, 2009). To have a good model, the error terms cannot be connected to one another over time. Auto-correlation may occur in statistical models for a variety of reasons, including improper functional form, missing variables, poorly converted data, and even erroneous model specification.

To detect the serial correlation, according to Godfrey et al. (1988), the Lagrange multiplier (LM) test is an appropriate approach to be employed. The following are the null and alternative hypotheses:

1. Null Hypothesis (H_0): there is no serial correlation up to lag order.
2. Alternative Hypothesis (H_1): there is a serial correlation up to lag order.

If serial correlation is detected, there are two approaches to correct it:

1. Improve model fit.
2. Include Autoregressive (AR) 1 model if no more variables can be added.

4.5.4.4 Ramsey's Reset

Ramsey (1969) has suggested to use the Ramsey Regression Specification Test (RESET) to detect a functional misspecification that is caused by either “variable omission bias” or improper “functional form” selection. This analysis is carried out by regressing the examined value of the dependent variable on independent variables, and the power of the dependent variable, and then checking the joint significance of the coefficients. The linear model is mis-specified as it gets significant.

This approach is based on running a regression and retaining both residual and fitted values. The error term or residual will then be regressed on the powers of fitted values in a secondary regression.

$$y_t = \alpha + \beta x_t + u_t \quad (35)$$

$$\hat{u}_t = \delta_0 + \delta_1 \hat{y}_t^2 + \delta_2 \hat{y}_t^3 + \dots + \delta_{p-1} \hat{y}_t^p + v_t \quad (36)$$

In general, the Ramsey RESET Test consists of the following steps:

1. The R-squared statistic is developed from the secondary regression and the test statistic is formed: $T \cdot R^2$.
2. It has a chi-squared distribution with degrees of freedom equals to $(p-1)$.
3. The null hypothesis (H_0) in this method: the functional form is efficient and suitable.
4. If a $T \cdot R^2$ statistic that is established in the regression is significant, then the

null can be rejected, which means that the functional form has a problematic issue.

4.5.4.5 Stability (CUSUM)

The cumulative sum of recursive residuals (CUSUM) and the CUSUM of squares (CUSUMSQ) stability evaluations, as proposed by Brown et al. (1975) and Johnston (1997), are employed to test the parameter reliability and stability in the ARDL model. These two diagnostic tests can assess the stability of coefficients and regression equation across time, and also the structural instability of error correction parameters and long-run relationships (Brown et al., 1975). These statistics are retrieved to compare it to the significance critical bound. In both tests, the null hypothesis states that all coefficients are constant and stable.

4.5.4.6 Autoregressive Conditional Heteroscedasticity (ARCH)

Finally, the Autoregressive Conditional Heteroscedasticity (ARCH) test should be used to check for conditional heteroscedasticity in the ARDL model as indicated by Engle (1982). The following are the null and alternative hypotheses of the ARCH test.

1. Null hypothesis (H_0): Variance of error term (residuals) is homogenous (there is no heteroscedasticity).
2. Alternative hypothesis (H_1): Variance of error term (residuals) is not homogenous (there is heteroscedasticity).

The ARCH test will be done using the LM method in this investigation. It follows the Engle (1982)'s ARCH test, as described by B. Pesaran and Pesaran (2010). The LM-statistic for the test of $i = 0, i = 1, 2, \dots, \rho$ in the auxiliary regression is assessed throughout the period $t = \rho + 1, \rho + 2, \dots, m$ as follows:

$$e_t^2 = \text{intercept} + \sum_{i=1}^{\rho} \delta_i e_{t-i}^2 + \text{Error} \quad (37)$$

where the residuals or error terms are e_t . The LM-statistic is based on the $\text{OBS} \cdot R^2$ in this regression, which is the LM-statistic for the null hypothesis of no serial correlation. OBS stands for number of observations, while R^2 is a statistical measure

that symbolizes the percentage of a dependent variable's variance that can be explained by an independent variable. The null hypothesis of no heteroskedasticity can be rejected if the p-value of this LM test is significant, indicating that the variance of error terms is homogeneous.

4.5.5 Pearson Correlation Coefficient Method

To answer research questions 1 and 2 for Takaful industry, Pearson correlation coefficient method is utilized due to the limitation of data. The observation number or the sample size of Takaful sector is 22. Meanwhile, the observation number or the sample size of IB and ICM sectors are 156 and 52, respectively. Pearson correlation coefficient, which is also known as Pearson r statistical test, is used to measure the strength between the relationships of different variables. It calculates the correlation coefficient's value to know how strong the relationship is between the two variables. Pearson correlation coefficient produces a value between -1 and 1, where the interpretation of the correlation coefficient is illustrated in Figure 4.4:

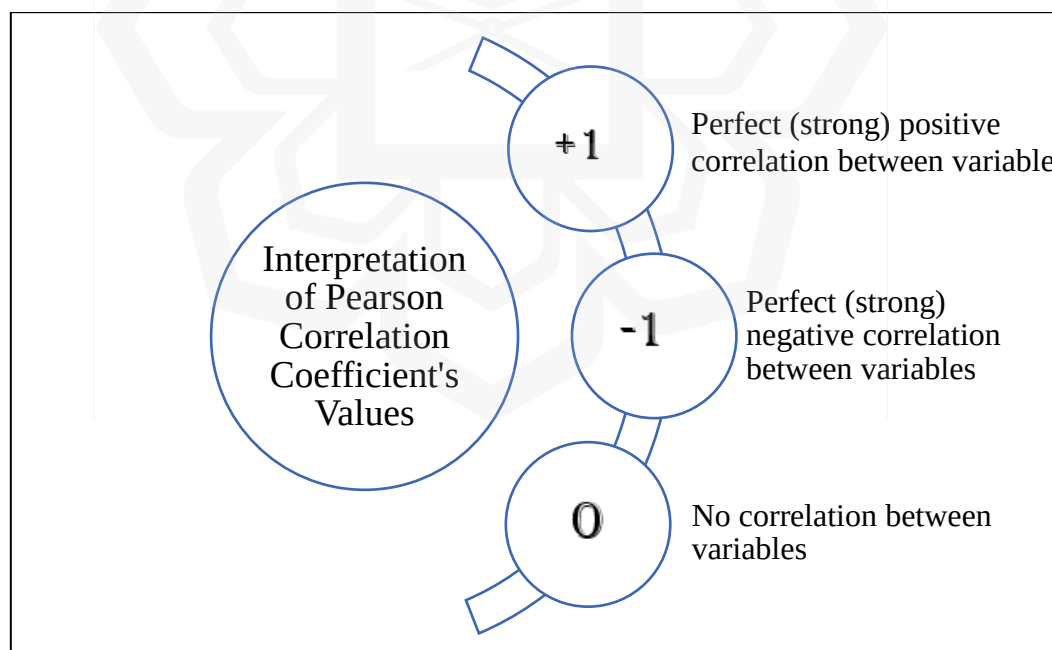


Figure 4.4 Interpretation of Pearson Correlation Coefficient's Values
Source: Sedgwick (2012)

A stronger relationship between variables is depicted by a higher absolute value of the correlation coefficient. For instances, a correlation coefficient of 0.36 indicates a

weaker positive correlation amongst the variables as compared to a value of 0.78. Correspondingly, a correlation coefficient of -0.40 indicates a weaker negative correlation amongst the variables as compared to a correlation coefficient of -0.87. To calculate Pearson correlation coefficient, the following formula is used:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}} \quad (38)$$

Where,

r = Pearson correlation coefficient

n = Number of pairs of the variable

$\sum xy$ = Sum of the paired variables

$\sum x$ = Sum of the x variable

$\sum y$ = Sum of the y variable

$\sum x^2$ = Sum of the squared x variable

$\sum y^2$ = Sum of the squared y variable

Moving forward, Statistical Package for the Social Science (SPSS) is used to analyse the model, which permits the management of the statistical data in the absence of calculation formulas. Moreover, it also combines the potentials of statistical processing facilities that are given by the spreadsheet programs. Pearson correlation coefficient helps to describe how strong the correlation between the two variables is and it also discovers the exact extent to which those variables are linked. Besides Pearson correlation coefficient, an interview session with several experts in Takaful industry will also be held to support the finding for the Takaful sector.

4.6 QUALITATIVE STUDY

A qualitative study, which involves two methods; 1) Between-Study Literature Analysis, and 2) Interview, is adopted to answer RO₃ as follows,

RO₃: To observe whether IF is fulfilling the goals of Islamic economics.

4.6.1 Between-Study Literature Analysis

To achieve the third research objective of this study, which is to examine the IF-growth nexus from the perspectives of Islamic economics, this study adopts between-study literature analysis and interview method. According to Onwuegbuzie et al. (2010), there are two types of literature analysis. The first one is within-study literature analysis, while the second one is between-study literature analysis. Both types of analyses are necessary and should be carried out in all literature reviews, with the exception of a very rare case, where the literature review involves the purposeful selection of one work, for example, a single article or book chapter, that is not compared to any other works.

The contents of a specific work are examined in a within-study literature analysis. A within-study literature analysis, in its most thorough and complete form, entails more than just examining a study's findings or a non-empirical work's primary assumption. Rather, it must ideally include an analysis of the title, literature review, conceptual framework/theoretical framework, techniques, findings, and discussion sections of the study.

A between-study literature analysis, on the other hand, compares data from two or more literature sources. Although empirical findings are the most frequent information to be compared, it is ideal to compare every component, or at least multiple components, of a work with every/many components from other works. To answer the third research question of the study, which is to theoretically view the IB-growth nexus from the perspectives of Islamic economic, a between-study literature analysis is adopted to compare the findings of the many studies on the related area. Table 4.7 show the 38 studies that are used for the analysis.

Table 4.7 Studies Used for Between-Study Literature Analysis

No	Year	Authors	Titles
1	2007	Asyraf Wajdi Dusuki and Abdulazeem Abozaid	A Critical Appraisal on the Challenges of Realizing <i>Maqasid al-Shari'ah</i> in Islamic Banking and Finance
2	2007	Abdulazeem Abozaid and Asyraf Wajdi Dusuki	The Challenges of Realizing <i>Maqasid al-Shari'ah</i> in Islamic Banking and Finance
3	2007	Abdul Rahim Abdul Rahman	Islamic Banking and Finance: Between Ideals and Realities
4	2008	Muhammad Umer Chapra, Shiraz Khan, Anas Al Shaikh-Ali	The Islamic Vision of Development in the Light of <i>Maqasid al-Shari'ah</i>

5	2008	Muhammad Umer Chapra	Ibn Khaldun's Theory of Development: Does It Help Explain the Low Performance of the Present-Day Muslim World?
6	2009	Eddy Yusof, Ezry Fahmy and Kashoogie, Jhordy and Anwar Kamal, Asim	Islamic Finance: Debt versus Equity Financing in the Light of <i>Maqasid al-Shari'ah</i>
7	2009	Mohammad Hashim Kamali	In Focus <i>Maqasid al-Shari'ah</i> and <i>Ijtihadas</i> Instruments of Civilisational Renewal: A Methodological Perspective
8	2011	Mohammad Hashim Kamali	Ethics and Finance: Perspectives of the <i>Shari'ah</i> and Its Higher Objectives (<i>Maqasid</i>)
9	2011	MB Hendre Anto	Introducing an Islamic Human Development Index (I-HDI) to Measure Development in OIC Countries
10	2011	Mirza Vejzagic and Edib Smolo	<i>Maqasid al-Shari'ah</i> in Islamic Finance: An Overview
11	2012	Houssein Eddine Bedoui	<i>Shari'ah</i> -Based Ethical Performance Measurement Framework and Relevant Data to Measure Development in Light of <i>Maqasid al-Shari'ah</i>
12	2014	Rafi Amir-Ud-Din	<i>Maqasid al-Shari'ah</i> : Are We Measuring the Immeasurable?
13	2014	Medhi Mili	A Structural Model for Human Development, Does <i>Maqasid al-Shari'ah</i> Matter!
14	2015	Mochammad Arif Budiman, Ruzita Mohd. Amin, Selamah A. Yusoff, Adewale Abideen Adeyemi	Measuring <i>Maqasid al-Shari'ah</i> at Micro Level with Special Reference to the Preservation of Wealth
15	2015	Rahmatina Kasri and Habib Ahmed	Assessing Socio-Economic Development based on <i>Maqasid al-Shari'ah</i> Principles: Normative Frameworks, Methods and Implementation in Indonesia
16	2015	Mustafa Omar Mohammed and Fauziah Md Taib	Developing Islamic Banking Performance Measures Based on <i>Maqasid al-Shari'ah</i> Framework: Cases of 24 Selected Banks
17	2015	Yazid Isa, Asmadi Mohamed Naim and Mohd Liki Hamid	The Practices of Islamic Finance in Upholding the Islamic Values and the <i>Maqasid al-Shari'ah</i>
18	2016	Reza Ghazal and Muhamed Zulkhibri	Islamic Inclusive Growth Index for the Organisation of Islamic Cooperation (OIC) Member Countries
19	2016	Ismail Nizam and Moussa Larbani	A Structural Equation Model of the <i>Maqasid al-Shari'ah</i> as a Socioeconomic Policy Tool
20	2016	Aam S. Rusydiana and Salman al-Parisi	The Measurement of Islamic Bank Performance: A Study Using <i>Maqasid</i> Index and Profitability
21	2017	Salman Ahmed Shaikh, Mohd Adib Ismail, Muhammad Hakimi Mohd. Shafiai, Abdul Ghafar Ismail, and Shahida Shahimi	Role of Islamic Banking in Financial Inclusion: Prospects and Performance
22	2018	Mohd Noor Omar and Norhanim Mat Sari	<i>Maqasid al-Shari'ah</i> Philosophy in Monetary Regime Towards Inclusive Sustainable Growth
23	2018	Muhammad Nazir Alias, Maimun Aqsha Lubis, Mohd Sham Kamis, Muhammad	<i>Maqasid al-Shari'ah</i> as Determination of Islamic Law Based on Shafie School of Thought

		Adib Samsudin, Anwar Fakhri Omar, Ahmad Irdha Mokhtar	
24	2018	Achmad Soediro and Inten Meutia	<i>Maqasid Shari'ah</i> as a Performance Framework for Islamic Financial Institutions
25	2018	Salman Ahmed Shaikh	Financial Inclusiveness in Islamic banking in Pakistan: A Comparison of Ideas and Practices
26	2018	Salman Ahmed Shaikh	Role of Islamic banking in Financial Inclusiveness in Pakistan: Promise, Performance and Prospects
27	2019	Naser Alziyadat and Habib Ahmed	Ethical Decision-Making in Islamic Financial Institutions in Light of <i>Maqasid al-Shari'ah</i> : A Conceptual Framework
28	2020	Sigit Pramono and Yasushi Suzuki	Growth of Islamic Banking in Indonesia
29	2022	Muhammad Nooraiman Zailani, Nurulhuda Mohd Satar and Roza Hazli Zakaria	A Review of Indicators for the Preservation of Wealth (<i>Hifz al-Mal</i>) Based on <i>Maqasid al-Shari'ah</i>
30	2022	Prasojo Prasojo	Exploring the Relationship Between Intellectual Capital and <i>Maqasid Shari'ah</i> -Based Performance: The Moderating Role of <i>Shari'ah</i> Governance
31	2022	Fahmi Ali Hudaefi and Abdul Malik Badeges	<i>Maqasid al-Shari'ah</i> on Islamic Banking Performance in Indonesia: A Knowledge Discovery Via Text Mining
32	2022	Lucky Nugroho	The Relationship between <i>Maqasid Shari'ah</i> and Profitability Ratio in Islamic Banking Industries Performance
33	2022	Salah Alhammadi	Analyzing the Role of Islamic Finance in Kuwait Regarding Sustainable Economic Development in COVID-19 Era
34	2022	Salah Alhammadi, Khaled O. Alotaibi and Dzikri F. Hakam	Analysing Islamic Banking Ethical Performance from <i>Maqasid al-Shari'ah</i> Perspective: Evidence from Indonesia
35	2022	Indri Kartika, Kiryanto Kiryanto and Rahayu Nur Cahyaningtyas	<i>Maqasid Sharia</i> -Based Performance Improvement Model: A Case Study in Islamic Banks in Indonesia
36	2023	Khairunnisa Musari and Sutan Emir Hidayat	The Role of Green Sukuk in <i>Maqasid al-Shari'ah</i> and SDGs: Evidence from Indonesia
37	2023	Muhammad Afif, Tatik Mariyanti, Nanda Septiani and Ellen Dolan	Factor Affecting Employee Motivation to Increase Performance of <i>Shari'ah</i> Bank in Indonesia on Islamic Perspective
38	2023	Ascarya Ascarya and Atika Rukminastiti Masrifah	Developing <i>Maqasid</i> Index for Islamic CSR: The Case of Ummah's Endowment Fund in Indonesia

4.6.2 Interview

4.6.2.1 Research Design

For the qualitative method to answer RO₃, this study conducts an interview, where the views and perspectives of experts in IF industry that are related to IF-growth nexus in Malaysia are explored. Figure 4.5 illustrates the types of interviews that are commonly used by researchers.

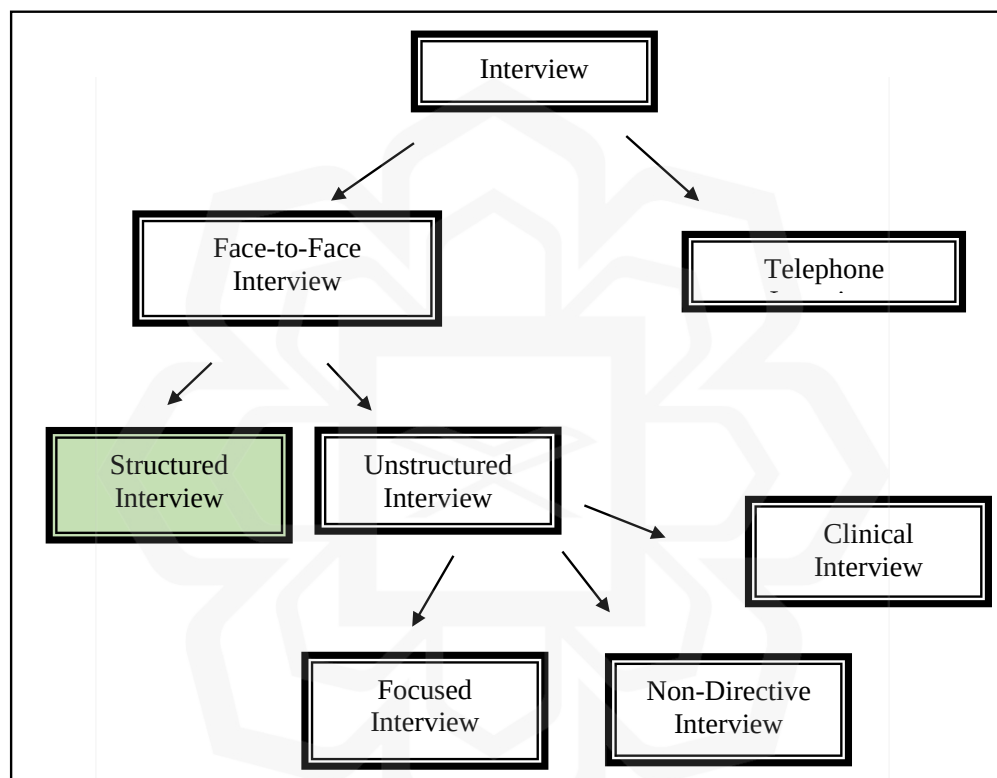


Figure 4.5 Types of Interviews
Source: Ahmad (2012)

The interview is a common data collection approach that involves the researcher and the subject communicating verbally. In survey designs, as well as exploratory and descriptive research, interviews are frequently employed. Interviewing can take a variety of forms, ranging from fully unstructured, in which the subject is free to talk about whatever they like, to highly organised, in which the subject's replies are confined to direct questions. Ahmad (2012) mentions in his study that interview method has several advantages, which include obtaining in-depth information from the interviewee,

providing a thorough explanations or clarification on the issues discussed, and obtaining comprehensive and less ambiguity responses.

4.6.2.2 Sample selection

In selecting the respondents that are suitable for the interview, the study adopts a judgemental sampling method. Those who possess exposure, knowledge, and expertise in the related field are chosen. This research chooses 7 experts in various fields of academics and industries as the interviewees as shown in Table 4.8. This is in line with the study of Chao and Salvendy (1994), Sarwer et al. (2012), Yusuf and Bahari (2015), Sharofiddin et al. (2018), Gwadabe and Rahman (2020), and Farlian et al. (2021), which included a total number of 3 to 8 interviewees in their studies as a representative sample due to their expertise and experience in the area of study. Experts in the area of Islamic finance and economics are chosen to give their opinions on the contribution of IF towards the economic growth, particularly from the Islamic perspective. The interviewees are chosen based on their background to gain insights for the area of study. Moreover, due to their tight schedule and time constraint, they opted for either written or video interviews. 4 written interviews and 3 video interviews are being held to answer a list of questions that are predetermined and used for the interview session to get in-depth information on a topic discussed.

Table 4.8 Interviewees' Description

Interviewee	Background of Interviewee	Tools of Interviewing
Interviewee 1 Dr. Zaharuddin Abd Rahman	Managing Director of Elzar <i>Shari'ah</i> Solution Sdn. Bhd. Area of expertise. - Islamic Finance - Islamic Capital Markets - Risk Management - Economics - Islamic Studies - Financial Institutions	Video Call
Interviewee 2 Associate Professor Dr. Umar Oseni	Chief Executive Officer (CEO) of International Islamic Liquidity Management Corporation. Area of expertise. - Islamic Banking and Finance - Law and Legal Studies - Human Rights and Democracy - Conflict Resolution - Legal Theory and Analysis	Written Interview

Interviewee 3 Dr. Ahmed Firas	Head of <i>Shari'ah</i> Advisor and <i>Sukuk</i> Financing at HSBC Amanah Malaysia. Area of expertise. - Islamic Finance - <i>Sukuk</i> - Islamic Law and Legal Advice - Islamic Studies	Video Call
Interviewee 4 Dr. Syed Adam Alhabsyi	Head of IF Practice Group and Partner (IF) at Raja, Darryl & Loh. Area of expertise. - Corporate - Islamic Finance - Islamic Debt Restructuring - Islamic Law and Legal Advice - Commercial & Conveyancing	Video Call
Interviewee 5 Muhammad Affiq Annuar	Business Development Director at Great Eastern Takaful Berhad. Area of expertise. - Takaful - Risk Management - Business Development	Written Interview
Interviewee 6 Ahmad Shaifuldin Mahamad Shahrudi	Head of Corporate Planning & Strategy at Etiqa Family Takaful Berhad. Area of Expertise. - Takaful - Strategic Planning - General Management - Banking - Finance	Written Interview
Interviewee 7 Mohd Aizzudin Hares	Assistant Vice President (AVP), Strategy Department at Etiqa Family Takaful Berhad. Area of Expertise. - Takaful - Strategic Planning - General Management - Banking - Finance	Written Interview

While the interviewees from Elzar *Shari'ah* Solution Sdn. Bhd., HSBC Amanah Malaysia, and Raja, Darryl & Loh are interviewed verbally via an online platform, which is through a video call meeting, the interviewees from International Islamic Liquidity Management Corporation, Great Eastern Takaful Berhad, and Etiqa Family Takaful Berhad decide to give a written interview owing to their limited time to spend on verbal interview.

4.6.2.3 Research Questions and Validation

To answer RO₃; whether Islamic finance fulfils *Maqasid Shari'ah*, a list of questions is developed as illustrated in Table 4.9. The sets of questions are formulated in a way that a good reliability and validity of the information gathered is ensured. For example, questions related to issues of understanding economic growth from Islamic perspectives were asked before questions that are linked to the issue of IF in practices and the strategies adopted by IF to improve its overall performance. By sector, questions related to the sector's contribution towards the public *maslahah* (benefit) were asked, with additional questions necessary to cover the issues. The impact of VBI on the Malaysian economic growth is also evaluated via the experts' opinions to add to the literature,

The questions are divided into four themes. The first theme depicts the information on the IF-growth nexus from the perspective of Islamic economics to gain information on the contribution of IF towards the benefit (*maslahah*) of the society, which is the main objective of the *Maqasid Shari'ah*. To view the general objective of IF towards the *maslahah* of the people by sector, the second theme depicts the information on the IB-growth nexus with 5 questions, while the third theme depicts the information on the Islamic capital market-growth nexus with 5 questions. Last but not least, the fourth theme depicts the information on Takaful-growth nexus with 4 questions. Besides, the questions on the effect of IFSA 2013 on each sector were also asked to further support and explain the quantitative findings.

Table 4.9 Interview's Themes and Questions

No	Themes	Questions
1	Information on the IF-Growth Nexus from the Perspective of Islamic Economics	1. What does economic growth or progress mean from the Islamic perspective? Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy? 2. Are there any alternative or additional metrics that you could suggest measuring the performance of an economy based on Islamic values? If yes, kindly identify it/them with a brief description. 3. To what extent do you think IF satisfies the <i>Maqasid al-Shari'ah</i> and fulfils Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit-maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society? 4. It is argued that Islamic economics is being developed according to Islamic values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?

		- How do you think IFSA 2013 impacts economic growth in the short and long run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions. - Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions? - Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by BNM, has impacted the IF-growth nexus in a meaningful way? Why or why not? - There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on)? - Could VBI have been implemented in a better way by BNM? If yes, what would those improvements be? - Do you think that the general public understand Islamic economics as well as they understand IF? How can IF be improved? - What is the impact of Covid-19 on the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?
2	Information on the IB-Growth Nexus	- Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes? - Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions. - Does the Islamic financial sector, particularly the IB sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG? - Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not? - Is IB sector now changing to include more social narratives?
3	Information on the Islamic Capital Market-Growth Nexus	- Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not? - Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG? - Do you think ICM has moved more towards finance or economics? - In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions. - Do you think the ICM is now changing to include more social narratives?
4	Information on the Takaful-Growth Nexus	- In what way do you think has the Takaful industry contributed to the economic growth of the country? - Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not? - Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG? - Do you believe the Takaful sector is now changing to include more social narratives?

In addition, to ensure the quality and accuracy of the interview outcomes, the interview questions are validated by 5 professionals in the IF industry, in which the details are illustrated in Table 4.10 as shown below.

Table 4.10 Validators' Description

Validator	Background of Validator
Validator 1 Professor Dr. Rusni Hassan	Professor at International Islamic University Malaysia (IIUM), Member of <i>Shari'ah</i> Advisory Council BNM, and <i>Shari'ah</i> Advisor for Association of IB Institutions Malaysia (AIBIM). Area of expertise; - Islamic Banking and Finance - Islamic Law of Transactions - Islamic Studies - Economics - Business and Management - Islamic Investment Instrument
Validator 2 Professor Dr. Gairuzazmi Mat Ghani	Professor at International Islamic University Malaysia (IIUM). Area of expertise; - Economics - Applied Economics - Business Management - International Trade
Validator 3 Associate Professor Dr. Azman Mohd Noor	Associate Professor at International Islamic University Malaysia (IIUM). Area of expertise; - Islamic Finance - Islamic Jurisprudence - Islamic Studies - Takaful
Validator 4 Associate Professor Dr. Maya Puspa Rahman	Associate Professor at Al-Qasimia University. Area of expertise; - Islamic Finance - Takaful - <i>Sukuk</i> - Economics and Finance
Validator 5 Assistant Professor Dr. Riasat Amin Imon	Assistant Professor and Centre for Islamic Economics Fellow at International Islamic University Malaysia (IIUM). Area of expertise; - Economics - Applied Economics - Business and Management - Economic Development and Growth

4.6.2.4 Research Analysis

The data collected from the interviewees is analysed based on Ptacek (2009)'s content analysis procedure. The process is shown in Figure 4.6.

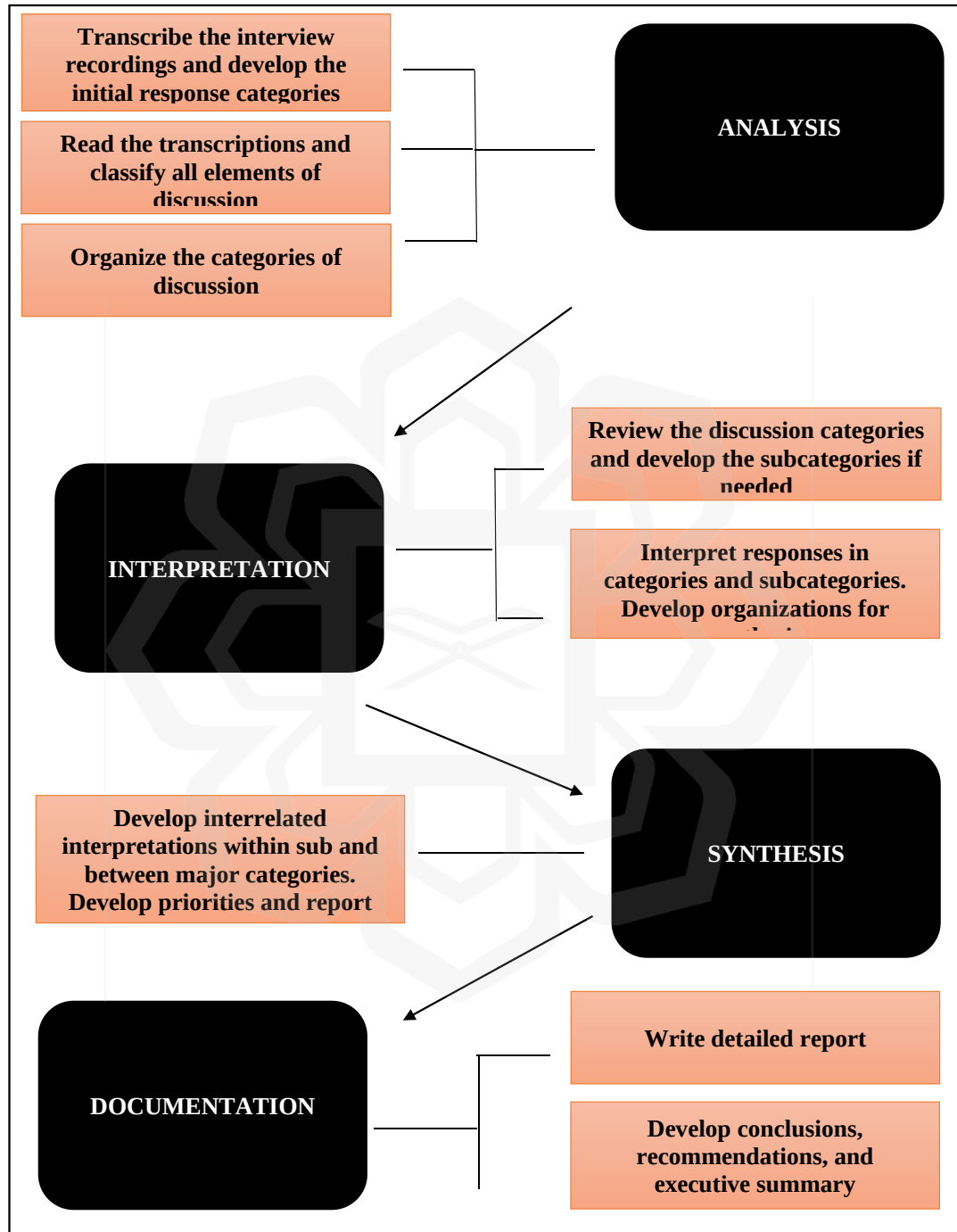


Figure 4.6 Procedure of Content Analysis
Source: Ptacek (2009)

The content analysis procedure consists of 4 steps. The first step is analysis, where the interview recordings are transcribed, and the categories of discussion are

developed. The second step is interpretation, where meaningful subcategories are developed if needed and organizations for synthesis are introduced. The third step is synthesis, where the interrelated interpretations within sub and between major categories are developed. The last step is documentation, where a detailed report is written, which also includes conclusions, recommendations, and an executive summary.

Furthermore, to ensure good data analysis, the data analysis also follows the three main steps mentioned by Miles and Huberman (1994); 1) Data reduction, 2) Data integration and display, and 3) Drawing conclusions. The objective of data reduction is to organise and select data in a way that allows for the unrelated themes to be eliminated. Meanwhile, data integration and display are used as a tool of assembling and compressing of the transcriptions' information to reduce the complexity of the data gathered. Finally, conclusions are verified by considering the scope of data collected on the topic.

4.7 SUMMARY OF THE RESEARCH METHOD

To examine the finance-growth nexus, there are numerous kinds of methods that have been used by previous researchers. In this study, to achieve RO1, RO2, and RO3, different methods are used as summarized by Figure 4.7:



Figure 4.7 Summary of the Research Method

4.8 CONCLUSION

In this chapter, the research methodology as well as data for this study are discussed. The methodologies that are applied aim to overcome some of the issues and problems, which are recognised as the weaknesses that are involved in other research in the area.

Consistent with the previous studies on IF-growth nexus, this study undertakes both quantitative and qualitative methodologies.

For quantitative analysis, ARDL and Pearson Correlation method are adopted to examine RO₁ and RO₂. Conceptual framework of the study, hypothesis development, data and variables information, model specification and estimation techniques are assessed for IB and ICM sector under the ARDL method, while Pearson correlation method is adopted for Takaful sector due to the limitation of data. The conceptual framework captures the big picture of this study and helps to get a better understanding about the RO₁ and RO₂, which in general, to explore the Islamic finance-growth nexus before and after the implementation of IFSA 2013.

Meanwhile, for qualitative analysis, between-study literature analysis and interview are adopted to answer RO₃. For between-study analysis, 33 significant works are analyzed. Meanwhile, for the interview method, 7 experts are chosen as the interviewees. Research design, research questions and validation as well as research analysis, together with sample selection are then assessed. Qualitative analysis is also added to further support and explain the numerical findings of RO₁ and RO₂. This is in line with the study of Narayan and Phan (2019), which mentioned that while it is important to do statistical or empirical analysis to test the robustness of the findings, it is equally important to draw the economic meaning from the statistics analysis to answer the question of ‘so what?’

CHAPTER FIVE

RESULTS AND DISCUSSION

5.1 INTRODUCTION

This chapter explains results of investigation on IF-growth nexus in Malaysia, in relation to the research objectives. There are two major parts of the analysis, which are quantitative analysis and qualitative analysis. Section 5.2 demonstrates the quantitative analysis, which is to answer RO1 and RO2, where the descriptive statistics of IB and ICM sectors is described in section 5.2.1, while the outcomes of the main regression analysis for IB and ICM sectors, which adopt ARDL method are discussed in section 5.2.2.

Additional test and diagnostic analysis to ascertain the appropriateness of variables is included. Meanwhile, due to the limitation of data, Pearson Correlation method is adopted for Takaful sector, where descriptive statistics, and correlation matrix of the Takaful variables are depicted in section 5.2.3. On the other hand, for qualitative study, which is to answer RO3, section 5.4 illustrates the findings of between-study analysis and interview. Lastly, section 5.5 concludes the chapter.

5.2 QUANTITATIVE ANALYSIS

5.2.1 Descriptive Statistics

5.2.1.1 Descriptive Statistics of Islamic Banking Sector

Table 5.1 depicts the descriptive analysis of IB sector, which covers the period of 2007 – 2019 (monthly). It consists of information on observations number, mean, maximum, minimum, standard deviation, skewness, kurtosis, sum, and sum of squared deviations values. The variables include $\ln IPI$, $\ln IA$, $\ln IBD$, $\ln IBA$, $\ln IBF$, $\ln TB$, PI , and INF .

Table 5.1 Descriptive Statistics of IB Sector

	<i>ln IPI</i>	<i>ln IA</i>	<i>ln IBD</i>	<i>ln IBA</i>	<i>ln IBF</i>	<i>ln TB</i>	<i>PI</i>	<i>INF</i>
Mean	4.67	11.30	12.57	12.81	12.40	9.01	4.78	2.26
Median	4.67	11.30	12.68	12.90	12.46	9.11	5.50	2.00
Maximum	4.82	11.78	13.34	13.64	13.33	9.77	82.60	8.50
Minimum	4.51	10.44	11.48	11.75	11.27	6.97	-30.90	-2.40
Std. Dev.	0.06	0.30	0.51	0.54	0.64	0.47	16.69	1.71
Skewness	-0.20	-0.51	-0.45	-0.31	-0.24	-1.84	0.63	0.79
Kurtosis	2.54	3.04	2.12	1.95	1.78	7.75	5.05	6.33
Sum	728.57	1763.27	1961.50	1998.99	1934.76	1405.98	745.40	353.00
Sum Sq. Dev.	0.60	13.54	40.99	45.23	62.60	34.18	43154.81	452.60
Observations	156	156	156	156	156	156	156	156

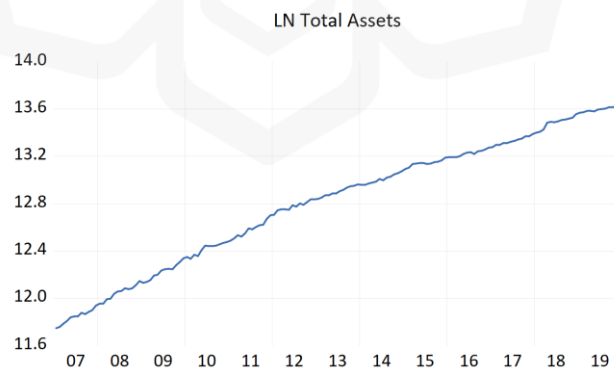
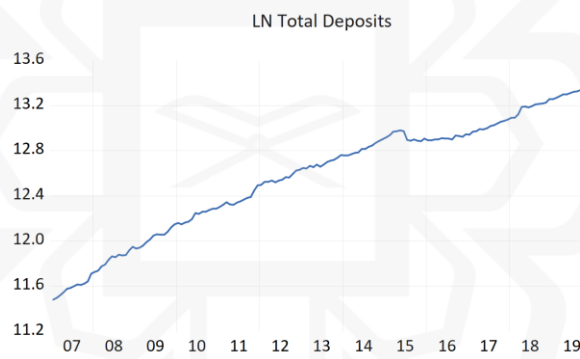
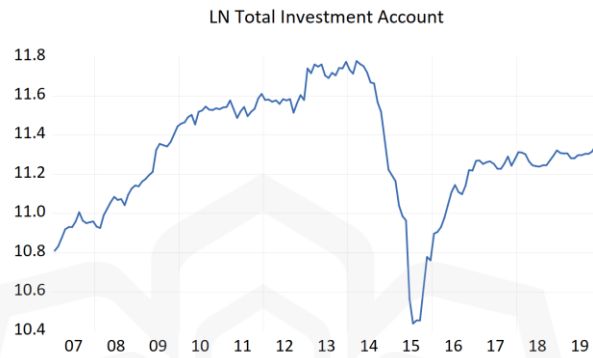
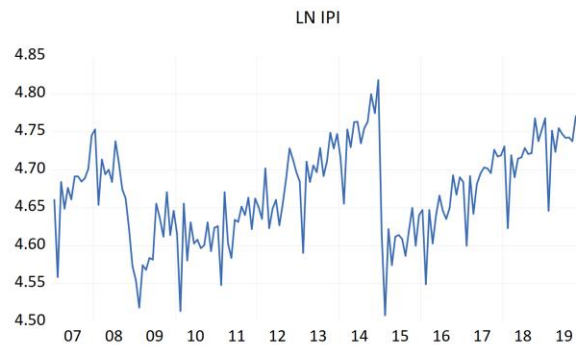
5.2.1.2 Descriptive Statistics of Islamic Capital Market Sector

Table 5.2 depicts the descriptive analysis of ICM sector, which covers the period of 2007 – 2019 (quarterly). It consists of information on observations number, mean, maximum, minimum, standard deviation, skewness, kurtosis, sum, and sum of squared deviations values. The variables include *ln IPI*, *ln SCS*, *ln SCMC*, *ln TB*, *PI*, and *INF*.

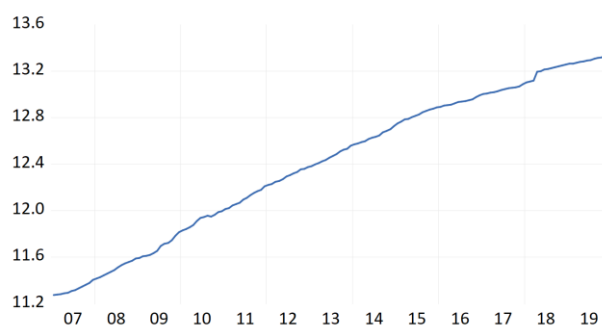
Table 5.2 Descriptive Statistics of ICM Sector

	<i>ln IPI</i>	<i>ln SCS</i>	<i>ln SCMC</i>	<i>ln TB</i>	<i>PI</i>	<i>INF</i>
Mean	4.68	6.63	6.76	9.11	4.28	2.25
Median	4.69	6.68	6.91	9.14	6.05	1.90
Maximum	4.82	6.77	7.03	9.68	82.60	8.20
Minimum	4.57	6.47	6.06	8.31	-30.3	-2
Std. Dev.	0.06	0.11	0.28	0.31	20.83	1.74
Skewness	-0.01	-0.08	-0.96	-0.43	0.81	0.96
Kurtosis	2.49	1.16	2.87	3.15	4.99	6.12
Sum	243.51	344.63	351.33	473.59	222.40	116.90
Sum Sq. Dev.	0.16	0.60	3.86	4.98	22132.09	154.59
Observations	52	52	52	52	52	52

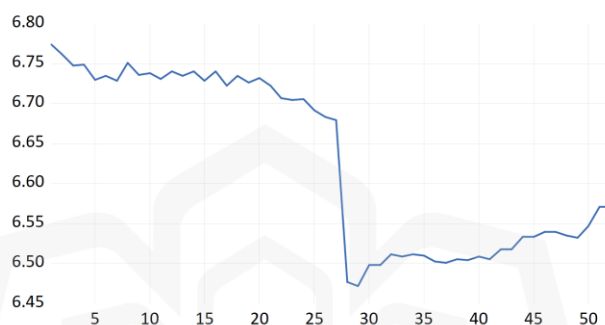
On top of the descriptive statistics, the time series chart for all variables are also provided to illustrate data points and give an idea of how the variables have moved over the period of the study.



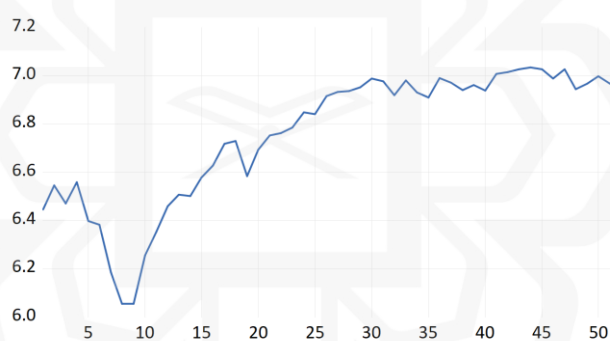
LN Total Financing by Purpose & Sectors



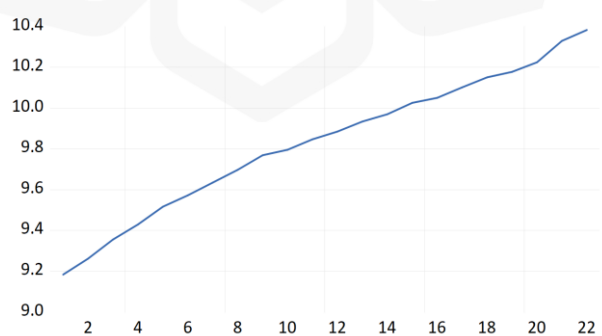
LN Total no. of Shariah-compliant securities



LN Total Shariah-compliant market capitalization



LN Assets of Family Takaful Funds



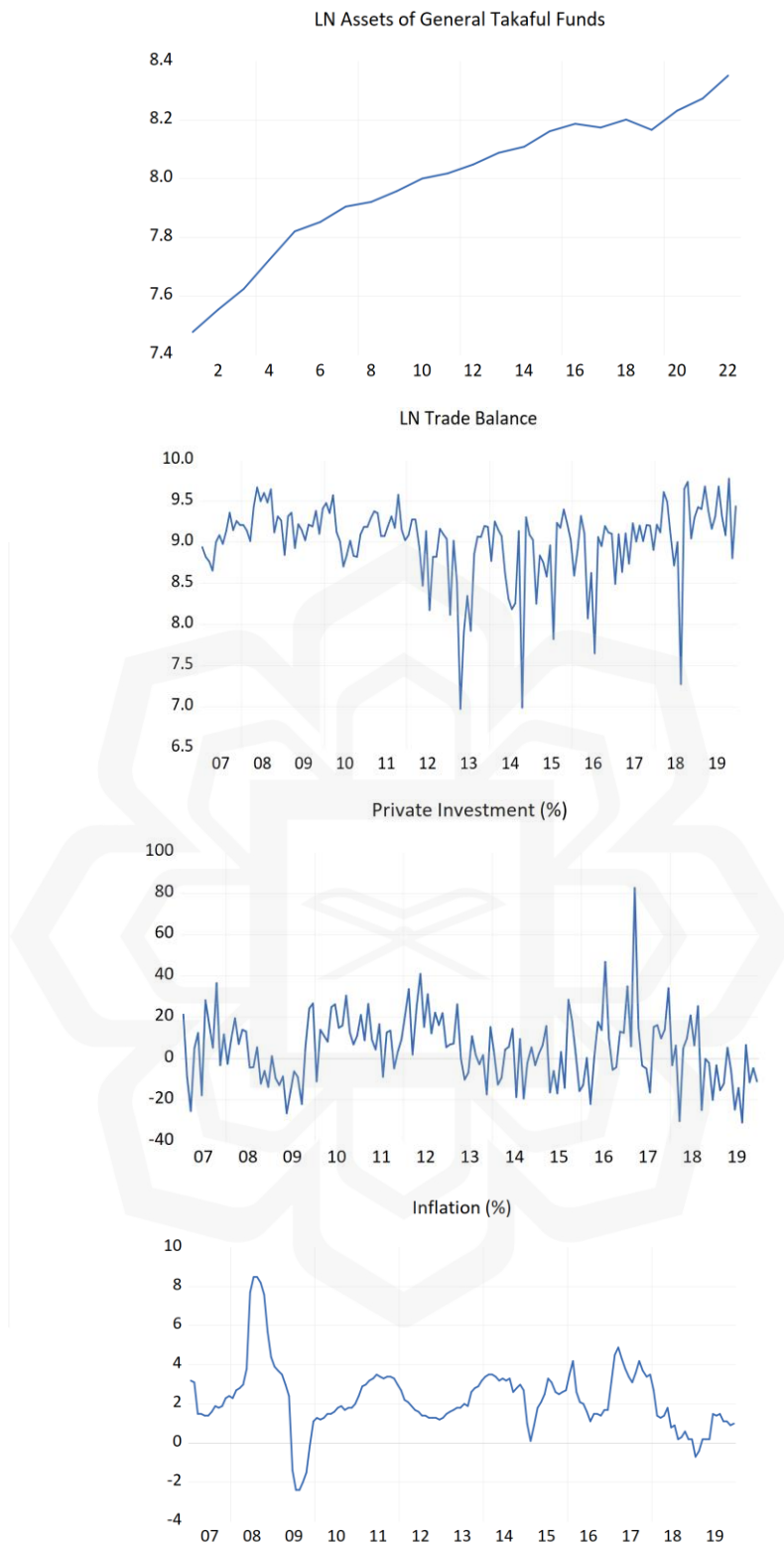


Figure 5.1 Time Series Charts for All Variables

Based on the time series charts, *ln IPI* registered declining growth between 2014 and 2015. This is driven by the collapse in oil prices that happened between mid-2014 and early 2016, which affects the global economy (World Bank, 2018). Meanwhile, *ln*

IA and *ln IBD* registered declining growth circa 2014 due to the introduction of IFSA 2013, which spells out demarcation between deposit and investment products and led to the reclassification of some of the outstanding *IA*, which in substance was a form of deposit (pre-IFSA), to a genuine investment product (post-IFSA). The significant reduction in the outstanding amount of *IA* bottomed around June 2016, and at the moment it is gradually growing and has gained momentum, albeit at a lower level compared to the outstanding amount observed prior to IFSA. According to BNM (2020), both *IA* and *IBD* are having an increasing trend from 2019 to 2020, with *IA* accounts for around 11.12% of the total Islamic deposit, reflecting a growing recognition of *IA* by customers as an alternative investment instrument and further diversification of funding sources by Islamic banks. Besides, *ln IBF* and *ln IBA* showed an increasing trend from 2007-2019.

Furthermore, *ln SCS* and *ln SCMC* also registered declining growth circa 2014 due to the introduction of IFSA 2013, where *Shari'ah* governance is strengthened to ensure Islamic financial institutions adhere to end-to-end *Shari'ah* compliance regarding their policies, procedures, and operations. They also registered declining growth circa 2007 due to the introduction of CMSA 2007, which aims to safeguard the interests of investors and stakeholders while ensuring the integrity, transparency, and stability of capital market in Malaysia. Meanwhile, *ln AGT* and *ln AFT* showed an increasing trend from 2009-2019.

Moreover, *INF* peaked at 8 percent in 2008. This happened following the 40.4 percent adjustment to retail fuel prices in June 2008, which was the largest adjustment since 1990, as global fuel prices reached historical levels. However, the global financial turmoil and higher inflation had a negative impact on the real economy by dampening consumption and investment activities. The contraction in global demand combined with the unwinding of positions taken in the commodity markets led to a rapid decline of commodity prices and allowed domestic fuel and food prices to decline, with domestic inflation moderating to 4.4% by December 2008 (BNM, 2008). That was actually the trigger for the deflationary condition observed in 2009.

On the other hand, *ln TB* registered declining growth between 2012 and 2013 due to a change in the ruling government. The trend showed a decreasing trend circa

2014 and 2016 due to the collapse in oil prices that happened between mid-2014 and early 2016 as well as the renminbi devaluation (BNM, 2022). In 2018, there was another change in the ruling government, which led to the declining growth of *ln TB*. In 2019, *ln TB* also registered declining growth due to the COVID-19 outbreak and a decrease in demand from major trade partners amid trade wars and headwinds in the global economic condition (The Malaysian Reserve, 2023). Last but not least, *PI* peaked in 2017 due to the increase in principal hub projects, where a total of 28 principal hub projects were approved to setup their regional headquarters in Malaysia in addition to a total of 216 approved investments that are worth RM374 million (33.6% higher than 2016), and there is a significant rise of 5.8% in the number of approved projects in line with Malaysia's direction to become the global hub (Malaysian Investment Development Authority (MIDA), 2017). However, *PI* registered declining growth circa 2018 and 2019 due to a change in the ruling government and the COVID-19 outbreak, respectively.

5.2.2 Regression Analysis

To answer the first and second research objectives for IB and ICM sectors, this study adopts a quantitative approach, which involves ARDL method of estimation. As mentioned in the previous chapter, the necessary steps to complete the ARDL analysis would be in this particular order: Determination of Optimal Lags, Unit-Root Tests, Multicollinearity Test, Bound Test, Serial Correlation Checking, Ramsey Reset Test, ARCH (Conditional Heteroscedasticity) and CUSUM test. The results of Optimal Lags, Unit-Root Tests, Multicollinearity Test, Bound Test, and Long/Short Run Elasticities are discussed.

5.2.2.1 Determination of Optimal Lag order

According to Arshed (2016), the optimal lag order must be determined first before running the regression, as it will be used in the unit root test and the ARDL estimation. The optimal lag order is determined via Vector Auto Regressive (VAR) Specification Order Criterion.

Table 5.3 depicts the results for optimal lag length selected by several criterions, which include sequential modified LR test statistic (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SC), and Hannan-Quinn Information Criterion (HQ) for IB sector in the absence and presence of IFSA 2013. Each test is at 5% significance level. For IB sector in the absence of IFSA 2013, lag 2 is chosen as the optimal lag length for *IA*, *IBD*, *IBF*, and *IBA* in the *IPI* models based on FPE, AIC, and HQ. Meanwhile, for IB sector in the presence of dummy IFSA 2013, lag 3 is selected as the optimal lag length for *IA*, *IBD*, *IBF*, and *IBA* in the models based on LR, FPE, and AIC for the pre-IFSA period, while lag 4 is selected as the optimal lag length for *IA*, *IBD*, *IBF*, and *IBA* in the models based on LR, FPE, AIC, SC, and HQ for the post-IFSA period.

On the other hand, for ICM sector in the absence of IFSA 2013, lag 6 is chosen as the optimal lag length for *SCMC* and *SC* in the regression models based on LR, FPE, AIC, and HQ. Meanwhile, for ICM sector in the presence of IFSA 2013, lag 1 is selected as the optimal lag length for *IA*, *IBD*, *IBF*, and *IBA* in the models based on LR, FPE, AIC, SC, and HQ for the pre-IFSA period, while lag 3 is selected as the optimal lag length for *IA*, *IBD*, *IBF*, and *IBA* in the models based on LR, FPE, AIC, SC, and HQ for the post-IFSA period.

Table 5.3 Optimal Lags for IB and ICM Sectors

Sector	VAR Lag Order Selection Criteria						
		In the Absence of IFSA 2013		In the Presence of IFSA 2013			
		Lag Number	Criterion	Pre-IFSA 2013		Post-IFSA 2013	
				Lag Number	Criterion	Lag Number	Criterion
IB	IA in the Model	2	FPE, AIC, and HQ	3	LR, FPE, and AIC	4	LR, FPE, AIC, SC, and HQ
	IBD in the Model						
	IBF in the Model						
	IBA in the Model						

ICM	SCMC in the Model	6	LR, FPE, AIC, and HQ	1	LR, FPE, AIC, SC, and HQ	3	LR, FPE, AIC, SC, and HQ
	SCS in the Model						

5.2.2.2 Result of Unit-Root Tests

5.2.2.2.1 Islamic Banking Sector

The first and amongst the most essential test in time-series analysis is assessing unit-root or stationarity of variables. The stationarity of the variables is established using the Augmented Dicky Fuller (ADF) and Philip Peron (PP) unit-root tests. The advantage of these tests is that they allow for a wide class of autocorrelated and mildly heterogenous series. The test was conducted at the log level and first difference. A plot of all the variables has shown the presence of trend and intercept, thus in all the tests, a constant and linear trend are included.

Table 5.4 displays the results of unit-root tests of ADF and PP methods for IB sector in the absence of IFSA 2013, which utilizes monthly data from 2007 to 2019. The ADF test results exhibit that the null hypothesis of existence of unit-root rejected at level is only for *ln IPI*, *ln TB*, *PI* and *INF*, hence they are stationary at level or I (0). Meanwhile, for the rest of the variables, which includes *ln IA*, *ln IBD*, *ln IBF*, and *ln IBA*, they are stationary at first difference or I (1). The PP test produces results similar to those of ADF test.

Table 5.5 and Table 5.6 display the results of unit-root tests of ADF and PP methods for IB sector in the presence of IFSA 2013. For pre-IFSA period, which utilizes monthly data from 2007 to 2013, the ADF test results exhibit that the null hypothesis of existence of unit-root rejected at level is only for *ln IBA*, *ln TB*, and *PI*, hence they are stationary at level or I (0). Meanwhile, for the rest of the variables, which includes *ln IPI*, *ln IA*, *ln IBD*, *ln IBF*, and *INF*, they are stationary at first difference or I (1). The outcome from the PP test is consistent with those of ADF except for *ln IPI*, which are found to be stationary at I (0) and not I (1).

For post-IFSA period, which utilizes monthly data from 2015 to 2019, the ADF test results exhibit that the null hypothesis of existence of unit-root rejected at level is only for *ln IPI*, *ln IA*, *ln TB*, and *PI*, hence they are stationary at level or I (0). Meanwhile, for the rest of the variables, which includes *ln IBD*, *ln IBF*, *ln IBA*, and *INF*, they are stationary at first difference or I (1). The PP test produces results similar to those of ADF test.

These results show that some variables behave as random walks, which means that the historical data of these variables cannot be used to predict the future trends. Furthermore, given such outcome, it is valid for this analysis to employ ARDL method because of the combination of I (0) and I (1) variables. Confirming the data suitability by unit-root test for the ARDL analysis, this study continues to examine whether or not long-run equilibrium exists amongst the variables by conducting the bound test.

Table 5.4 Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) Tests for Islamic Banking Sector in the Absence of IFSA 2013

January 2007 to December 2019					
(Trend and intercept)					
Variables	ADF		PP		Stationarity Status
	Level	1 st diff	Level	1 st diff	
<i>ln IPI</i>	-3.571463 **	-12.72644 ***	-6.252542 ***	-29.88341 ***	I (0)
<i>ln IA</i>	-2.095470	-4.709249 ***	-2.121898	-9.341413 ***	I (1)
<i>ln IBD</i>	-2.061415	-11.86775 ***	-2.062332	-11.86456 ***	I (1)
<i>ln IBF</i>	0.756518	-11.19138 ***	0.507065	-11.19623 ***	I (1)
<i>ln IBA</i>	-1.812109	-15.19215 ***	-1.711571	-16.24898 ***	I (1)
<i>ln TB</i>	-4.377891 ***	-10.30549 ***	-9.697479 ***	-47.38730 ***	I (0)
<i>PI</i>	-5.850242 ***	-10.25577 ***	-9.865334 ***	-75.30782 ***	I (0)
<i>INF</i>	-4.000520 **	-8.274282 ***	-3.372392 **	-8.318086 ***	I (0)

Notes: *, **, and *** denotes significant at 10%, 5%, and 1% respectively.

Table 5.5 Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) Tests for Islamic Banking Sector in the Presence of IFSA 2013 (Pre-IFSA 2013)

January 2007 to June 2013 (Pre-IFSA 2013)					
(Trend and intercept)					
Variables	ADF		PP		Stationarity Status
	Level	1 st diff	Level	1 st diff	

ln IPI	-2.505096	-9.175006***	-5.005200***	-17.47490***	I (0)
ln IA	-1.939267	-9.787087***	-1.939267	-9.789506***	I (1)
ln IBD	-1.940041	-8.893542***	-1.763858	-9.216552***	I (1)
ln IBF	-2.551648	-7.473010***	-2.741539	-7.456644***	I (1)
ln IBA	-3.428053*	-11.52504***	-3.235330*	-13.78082***	I (0)
ln TB	-4.273075***	-5.814435***	-5.150637***	-13.93206***	I (0)
PI	-4.183378***	-12.38138***	-6.932000***	-17.83876***	I (0)
INF	-2.900047	-5.233293***	-2.405694	-5.248570***	I (1)

Notes: *, **, and *** denote significant at 10%, 5%, and 1% respectively.

Table 5.6 Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) Tests for Islamic Banking Sector in the Presence of IFSA 2013 (Post-IFSA 2013)

July 2015 to December 2019 (Post-IFSA 2013)					
(Trend and intercept)					
Variables	ADF		PP		Stationarity Status
	Level	1st diff	Level	1st diff	
ln IPI	-8.824892***	-9.560860***	-8.762180***	-18.91686***	I (0)
ln IA	-3.233450*	-6.478824***	-4.182393***	-6.488901***	I (0)
ln IBD	-2.710353	-7.763983***	-2.711531	-7.763983***	I (1)
ln IBF	-1.707921	-7.042377***	-1.832454	-7.042377***	I (1)
ln IBA	-2.156552	-7.030962***	-2.161693	-7.122605***	I (1)
ln TB	-7.466861***	-7.562396***	-7.466861***	-31.45967***	I (0)
PI	-6.078065***	-12.37230***	-6.078065***	-30.89758***	I (0)
INF	-2.380326	-5.792607***	-2.091932	-5.705859***	I (1)

Notes: *, **, and *** denote significant at 10%, 5%, and 1% respectively.

5.2.2.2.2 *Islamic Capital Market Sector*

Similar to the IB sector, the first and amongst the most essential test in time-series analysis is assessing the stationarity of variables through unit root tests. The stationarity of the variables is established using both ADF and PP unit-root tests.

Table 5.7 displays the result of unit-root tests of ADF and PP methods for ICM

sector in the absence of IFSA 2013, which utilizes quarterly data from 2007 to 2019. A plot of all the variables has shown the presence of trend and intercept, thus in all the tests, a constant and linear trend are included. The ADF test results exhibit that the null hypothesis of existence of unit-root rejected at level is only for *ln TB*, *PI* and *INF*, hence they are stationary at level or I (0). Meanwhile, for the rest of the variables, which includes *ln IPI*, *ln SCS*, and *ln SCMC*, they are stationary at first difference or I (1). The PP test produces results similar to those of ADF test. Because the variables have mixed of I (1) and I (0), the ARDL is a suitable model to be adopted for further analysis of short-run and long-run relationships. This study continues to examine whether or not long-run equilibrium exists amongst the variables by conducting the bound test.

Table 5.8 and Table 5.9 display the results of unit-root tests of ADF and PP methods for ICM sector in the presence of IFSA 2013. For pre-IFSA period, which utilizes quarterly data from 2007 to 2013, the ADF test results exhibit that the null hypothesis of existence of unit-root rejected at level is only for *ln TB*, hence they are stationary at level or I (0). Meanwhile, for the rest of the variables, which includes *ln IPI*, *ln SCS*, *ln SCMC*, *PI*, and *INF*, they are stationary at first difference or I (1). The outcome from the PP test is consistent with those of ADF.

For post-IFSA period, which utilizes quarterly data from 2014 to 2019, the ADF test results exhibit that the null hypothesis of existence of unit-root rejected at level is only for *ln SCMC*, *ln TB*, and *PI*, hence they are stationary at level or I (0). Meanwhile, for the rest of the variables, which includes *ln IPI*, *ln SCS*, and *INF*, they are stationary at first difference or I (1). The PP test produces results similar to those of ADF test except for *PI*, which are found to be stationary at I (0) and not I (1).

Table 5.7 Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) Tests for Islamic Capital Market in the Absence of IFSA 2013

January 2007 to December 2019					
(Trend and Intercept)					
Variables	ADF		PP		Stationarity Status
	Level	1st diff	Level	1st diff	
ln IPI	-3.063033	-7.787585 ***	-3.118261	-8.481797 ***	I (1)
ln SCS	-1.449363	-6.952515 ***	-1.504267	-6.952448 ***	I (1)

ln SCMC	-2.140450	-6.515355 ***	-2.007110	-6.550425 ***	I (1)
ln TB	-6.172239 ***	-6.289670 ***	-6.340267 ***	-32.97825 ***	I (0)
PI	-4.231890 ***	-4.743160 ***	-6.822166 ***	-16.71438 ***	I (0)
INF	-5.011818 ***	-5.937543 ***	-3.398613 **	-6.337630 ***	I (0)

Notes: *, **, and *** denotes significant at 10%, 5%, and 1% respectively.

Table 5.8 Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) Tests for Islamic Capital Market in the Presence of IFSA 2013 (Pre-IFSA)

January 2007 to June 2013 (Pre-IFSA 2013)					
(Trend and intercept)					
Variables	ADF		PP		Stationarity Status
	Level	1st diff	Level	1st diff	
LN IPI	-1.967689	-4.887488***	-1.967689	-4.888484***	I (1)
LN SCS	-1.027471	-8.622048***	-2.694956	-8.482685***	I (1)
LN SCMC	-2.923814	-4.458500***	-1.891998	-4.463176***	I (1)
LN TB	-4.424728***	-6.203941***	-5.134596***	-8.430298***	I (0)
PI	-3.217757	-7.166863***	-3.220099	-7.030204***	I (1)
INF	-3.193629	-3.860084**	-2.267674	-3.828838**	I (1)

Notes: *, **, and *** denote significant at 10%, 5%, and 1% respectively.

Table 5.9 Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) Tests for Islamic Capital Market in the Presence of IFSA 2013 (Post-IFSA)

March 2014 to December 2019 (Post-IFSA 2013)					
(Trend and intercept)					
Variables	ADF		PP		Stationarity Status
	Level	1st diff	Level	1st diff	
LN IPI	-2.306296	-5.660169***	-2.575254	-5.874304***	I (1)
LN SCS	-1.304927	-4.671034***	-1.304927	-4.671081***	I (1)
LN SCMC	-3.620999*	-5.310185***	-3.599169*	-7.754772***	I (0)
LN TB	- 7.221419***	-7.253656***	-7.020734***	-29.31008***	I (0)
PI	-1.489150	-7.461703***	-5.029158***	-23.51541***	I (0)
INF	-2.482625	-5.396481***	-2.579663	-5.396481***	I (1)

Notes: *, **, and *** denote significant at 10%, 5%, and 1% respectively.

5.2.2.3 Result of Multicollinearity Test

5.2.2.3.1 Islamic Banking and Islamic Capital Market Sectors in the Absence of IFSA 2013

Table 5.10 depicts the results of multicollinearity test for IB and ICM sectors in the absence of IFSA 2013. As mentioned by Daoud (2017), multicollinearity happens when the value of the centered VIF is more than 10. If it is lesser than 10, the variables are moderately correlated, but within an acceptable range. Multicollinearity does not exist if the value of the centered VIF is equal to 1.

The results illustrate that *IA*, *IBD*, *IBF*, and *IBA* in the models, have a centered VIF value of less than 10 but slightly more than 1, which means that the variables are moderately correlated, but they are within an acceptable range. Similarly, for ICM sector, both *SCS* and *SCMC* in the models also have an acceptable range of centered VIF value, which is less than 10 but slightly more than 1, which means that the variables are moderately correlated. Hence, the problem of multicollinearity does not exist for both IB and ICM sectors in the absence of IFSA 2013.

Table 5.10 Multicollinearity Test for IB and ICM Sectors in the Absence of IFSA 2013

	Centered VIF					
	IA MODEL	IBD MODEL	IBF MODEL	IBA MODEL	SCS MODEL	SCMC MODEL
<i>ln IPI</i>	1.066241	1.164360	1.164516	1.167586	1.278313	1.424653
<i>ln IA</i>	1.095440	-	-	-	-	-
<i>ln IBD</i>	-	1.224742	-	-	-	-
<i>ln IBF</i>	-	-	1.213344	-	-	-
<i>ln IBA</i>	-	-	-	1.220322	-	-
<i>ln SCS</i>	-	-	-	-	1.300716	-
<i>Ln SCMC</i>	-	-	-	-	-	1.517008
<i>ln TB</i>	1.085915	1.092340	1.089498	1.088375	1.369695	1.397237
<i>PI</i>	1.107384	1.092155	1.090949	1.090392	1.507110	1.473661
<i>INF</i>	1.033671	1.065505	1.058925	1.064755	1.194573	1.266597

5.2.2.3.2 Islamic Banking and Islamic Capital Market Sector in the Presence of IFSA 2013

The results in Table 5.11 and Table 5.12 depict the results of multicollinearity test for IB and ICM sectors in the presence of IFSA 2013 (Pre- and Post-IFSA 2013, respectively). Both Table 5.11 and Table 5.12 illustrate that *IA*, *IBD*, *IBF*, and *IBA* in the models, have a centered VIF value of less than 10, with an acceptable range of 1 to 6,

which means that the variables are moderately correlated. Similarly, for ICM sector, both *SCS* and *SCMC* in the models also have a centered VIF value of less than 10, with an acceptable range of 1 to 8, which means that the variables are moderately correlated. Hence, the problem of multicollinearity also does not exist for both IB and ICM sectors in the presence of dummy IFSA 2013 (Pre- and Post-IFSA 2013, respectively).

Table 5.11 Multicollinearity Test for IB and ICM Sectors in the Presence of IFSA 2013 (Pre-IFSA 2013)

	Centered VIF					
	IA	IBD	IBF	IBA	SCS	SCMC
	MODEL	MODEL	MODEL	MODEL	MODEL	MODEL
<i>ln IPI</i>	2.031813	2.021167	2.024658	2.102430	2.584561	3.091848
<i>ln IA</i>	1.266586	-	-	-	-	-
<i>ln IBD</i>	-	1.233389	-	-	-	-
<i>ln IBF</i>	-	-	1.267855	-	-	-
<i>ln IBA</i>	-	-	-	1.255368	-	-
<i>ln SCS</i>	-	-	-	-	2.812425	-
<i>Ln SCMC</i>	-	-	-	-	-	5.247007
<i>ln TB</i>	1.304784	1.339559	1.395023	1.352213	2.131352	2.629934
<i>PI</i>	1.080523	1.085837	1.079289	1.091801	1.200229	2.123169
<i>INF</i>	1.324425	1.312185	1.340578	1.309437	1.956200	6.113114

Table 5.12 Multicollinearity Test for IB and ICM Sectors in the Presence of IFSA 2013 (Post-IFSA 2013)

	Centered VIF					
	IA	IBD	IBF	IBA	SCS	SCMC
	MODEL	MODEL	MODEL	MODEL	MODEL	MODEL
<i>ln IPI</i>	3.405161	3.555366	3.981559	4.215787	3.017299	1.311684
<i>ln IA</i>	2.723145	-	-	-	-	-
<i>ln IBD</i>	-	6.365610	-	-	-	-
<i>ln IBF</i>	-	-	5.171004	-	-	-
<i>ln IBA</i>	-	-	-	3.955611	-	-
<i>ln SCS</i>	-	-	-	-	8.207368	-
<i>Ln SCMC</i>	-	-	-	-	-	1.449970
<i>ln TB</i>	1.749566	1.743146	1.620502	1.865359	4.840988	1.984308
<i>PI</i>	1.562843	1.590478	1.446790	1.769158	6.272386	2.018192
<i>INF</i>	1.490007	1.845738	1.516688	1.967038	3.376405	1.924903

5.2.2.4 Results from the Bound Tests

Following the outcomes from the unit root tests, the study adopts the ARDL technique to analyse the cointegration between variables. The initial step in the ARDL is to check the existence of cointegration between the dependent and independent variables by using “bound testing” processes on the conditional unrestricted error correction models (UECM). The bound test principally set k (lag-length) as automatic choice (with trend and constant) for all lag orders. Then, it applies the joint significance test (F-statistic) for checking the existence of cointegration among variables in the model.

In the absence of IFSA 2013, this study adopted Pesaran, et al. (2001)’s critical values for IB sector as the number of observations are big, which is 156. Meanwhile, for ICM sector, this study uses the critical values provided by Narayan (2004) as the number of observations is small, which are 52. In the presence of IFSA 2013, Narayan (2004)’s critical values are adopted for both IB and ICM sectors pre- and post-IFSA 2013 as the observation numbers are small. Two asymptotic critical-value bounds are used where the lower critical value assumes that the regressors are $I(0)$ and the upper critical value assumes that they are purely $I(1)$. If the F- statistics exceeds the upper critical value, the null hypothesis can be rejected, and the applied variables are cointegrated. This also means that if the test result remains among the two bounds, the result is inconclusive, and supplementary assessment on the integration order of variables is needed to declare whether variables are $I(0)$ or $I(1)$.

5.2.2.4.1 Islamic Banking Sector

The outcomes of bounds tests (computed F- statistics) for IB sector is displayed on Table 5.13 with $\ln IPI$ as the dependent variable. Comparing the calculated F-statistics for the IB model with the critical bounds value as suggested by Pesaran (2001) in the absence of IFSA 2013, with 156 observation numbers, the findings identify that these models, which include IA , IBD , IBF and IBA variables, are cointegrated at the 1% level of significance, as the estimated F-statistics are higher than the 1% level of significance's upper critical bounds for all variables in the models ($7.49 > 5.58$ (IA), $5.85 > 5.58$ (IBD), $5.86 > 5.58$ (IBF), and $5.93 > 5.58$ (IBA)). This suggests that the variables are cointegrated, implying that in the absence of IFSA, the long-run relationship among the variables exists, suggesting that there is tendency for the variables to move together

towards a long-run equilibrium.

On the other hand, in the presence of IFSA 2013, the findings for pre-IFSA 2013 identify that the models, which include *IA*, *IBD*, *IBF* and *IBA* variables, are cointegrated at the 1% level of significance, as it is shown that the estimated F-statistics are higher than the 1% level of significance's upper critical bounds for all variables in the models ($7.12 > 5.58$ (*IA*), $7.11 > 5.58$ (*IBD*), $7.29 > 5.58$ (*IBF*), and $5.85 > 5.58$ (*IBA*)). This suggests that the variables are cointegrated, implying that the long-run relationship among the variables during pre-IFSA 2013 period exist, suggesting that there is tendency for the variables to move together towards a long-run equilibrium.

Meanwhile, the findings for post-IFSA 2013 identify that the models, which include *IA*, *IBD*, *IBF* and *IBA* variables, are cointegrated at the 1% level of significance, as it is shown that the estimated F-statistics are higher than the 1% level of significance's upper critical bounds for all variables in the models ($12.99 > 5.58$ (*IA*), $11.92 > 5.58$ (*IBD*), $22.66 > 5.58$ (*IBF*), and $20.71 > 5.58$ (*IBA*)). This suggests that the variables are cointegrated, implying that the long-run relationship among the variables during post-IFSA 2013 period exist, suggesting that there is tendency for the variables to move together towards a long-run equilibrium.

Results of the bound test indicate evidence of cointegration for the period of observation. This implies that there is a long-run relationship among the variables in the aggregate system.

Table 5.13 Results from Bound Test for IB Sector

In the Absence of IFSA 2013		Computed F-statistic	<i>IA</i> in the model, $F = 7.485^{***}$ <i>IBD</i> in the model, $F = 5.845193^{***}$ <i>IBF</i> in the model, $F = 5.860367^{***}$ <i>IBA</i> in the model, $F = 5.924598^{***}$ Critical bounds ($k = 4$)	
		Significance Level	I (0)	I (1)
		1%	4.94	5.58
		5%	3.62	4.16
		10%	3.02	3.51
		Computed F-statistic	<i>IA</i> in the model, $F = 7.123^{***}$ <i>IBD</i> in the model, $F = 7.113^{***}$ <i>IBF</i> in the model, $F = 7.291^{***}$ <i>IBA</i> in the model, $F = 5.846^{***}$ Critical bounds ($k = 1$)	

In the Presence of IFSA 2013	Pre-IFSA 2013	Significance Level	I (0)	I (1)
		1%	4.94	5.58
		5%	3.62	4.16
		10%	3.02	3.51
	Post-IFSA 2013	Computed F-statistic	<i>IA</i> in the model, $F = 12.996^{***}$ <i>IBD</i> in the model, $F = 11.918^{***}$ <i>IBF</i> in the model, $F = 22.657^{***}$ <i>IBA</i> in the model, $F = 20.707^{***}$ Critical bounds ($k = 1$)	
		Significance Level	I (0)	I (1)
		1%	4.94	5.58
		5%	3.62	4.16
		10%	3.02	3.51

Notes: *, **, and *** denotes significant at 10%, 5%, and 1% respectively. k is the boundary between nonsignificant and significant results in a hypothesis test.

5.2.2.4.2 Islamic Capital Market Sector

The outcomes of bounds tests (computed F- statistics) for ICM sector is displayed in Table 5.14 with $\ln IPI$ as the dependent variable. Comparing the calculated F-statistics for the ICM model in the absence of IFSA 2013 with the critical bounds value as suggested by Narayan (2004) as the observation number is 52, the results show that *SCS* and *SCMC* in the models are cointegrated at the 5% level of significance, as the estimated F-statistics are higher than the 5% level of significance's upper critical bounds for all variables in the models ($5.28 > 4.16$ (*SCS*) and $5.44 > 4.16$ (*SCMC*)). This implies that the long-run relationship among the variables in the absence of IFSA 2013 exists, suggesting that there is tendency for the variables to move together towards a long-run equilibrium. Similarly, in the presence of IFSA 2013 with the critical bounds value as suggested by Narayan (2004), the findings for pre-IFSA 2013 identify that *SCS* in the model is cointegrated at 1% level of significance as it is shown that the estimated F-statistics are higher than the 1% level of significance's upper critical bounds ($8.01 > 5.58$). On the other hand, the results show that *SCMC* in the model is cointegrated at 5% level of significance when *SCMC* as it is shown that the estimated F-statistics are higher than the 5% level of significance's upper critical bounds ($4.61 > 4.16$). This suggests that the variables are cointegrated, implying that the long-run relationship among the variables in the period of pre-IFSA 2013 exists, suggesting that there is tendency for the variables to move together towards a long-run equilibrium.

Meanwhile, the findings for post-IFSA 2013 identify that *SCS* in the model is cointegrated at 1% level of significance as it is shown that the estimated F- statistics are higher than the 1% level of significance's upper critical bounds ($26.36 > 5.58$). On the other hand, the results show that *SCMC* in the model is cointegrated at 5% level of significance when *SCMC* as it is shown that the estimated F-statistics are higher than the 5% level of significance's upper critical bounds ($5.34 > 4.16$). This suggests that the variables are cointegrated, implying that the long-run relationship among the variables in the period of post-IFSA 2013 exists, suggesting that there is tendency for the variables to move together towards a long-run equilibrium.

Result of the bound test as measured against Narayan's critical-value bounds indicates evidence of cointegration for the period of observation in the ICM sector. This implies that there is a long-run relationship among the variables in the aggregate system.

Table 5.14 Results from Bound Test for ICM Sector

In the Absence of IFSA 2013		Computed F-statistic	SCS in the model, $F = 5.280^{**}$ SCMC in the model, $F = 5.442^{**}$ Critical bounds ($k = 1$)	
		Significance Level	I (0)	I (1)
		1%	4.94	5.58
		5%	3.62	4.16
		10%	3.02	3.51
In the Presence of IFSA 2013	Pre-IFSA 2013	Computed F-statistic	SCS in the model, $F = 8.010^{***}$ SCMC in the model, $F = 4.614^{**}$ Critical bounds ($k = 1$)	
		Significance Level	I (0)	I (1)
		1%	4.94	5.58
		5%	3.62	4.16
		10%	3.02	3.51
	Post-IFSA 2013	Computed F-statistic	SCS in the model, $F = 26.35802^{***}$ SCMC in the model, $F = 5.338^{**}$ Critical bounds ($k = 1$)	
		Significance Level	I (0)	I (1)
		1%	4.94	5.58
		5%	3.62	4.16
		10%	3.02	3.51

Notes: *, **, and *** denotes significant at 10%, 5%, and 1% respectively. k is the boundary between nonsignificant and significant results in a hypothesis test.

5.2.2.5 Results of the Long-Run Relationship

5.2.2.5.1 Islamic Banking Sector

ARDL Estimate of Long-Run Relationship in the Absence of IFSA 2013

To provide the detailed insight of the relationship between dependent variable and independent variables, the aggregate system analysis is extended, and the long-run relationship of the aggregate system is investigated. In this analysis, the responses of *ln IPI* to other variables are analysed, given evidence of cointegration between the variables. The primary rule for establishing a long-run model is the variables must be cointegrated. This is confirmed via outcome from bound test. Therefore long-run model can be established.

In Table 5.15 below, the results for all variables in the models are presented. It is shown that in 3 out of 4 variables in the absence of IFSA 2013, which include *IBD*, *IBF*, and *IBA* in the models are positive at 5% level. For *IBD* in the model, a 1% increase in Islamic banks deposit increases the real economic growth by 0.049%, while for *IBF* variable, a 1% increase in Islamic banks financing increases the real economic growth by 0.039%. In addition, for *IBA* in the model, a 1% increase in Islamic banks asset increases the real economic growth by 0.048%. On the contrary, for *IA* model, a 1% increase in *IA* variable increases the real economic growth by 0.055%, but it is not significant. The overall results show that all variables in the models are supporting the supply-leading hypothesis in the long run. This result is consistent with many studies, such as by Kassim (2016), Bm and Uddin (2016), Zarrouk et al. (2017), Smaoui and Nechi (2017), Chowdhury et al. (2018), Ledhem and Mekidiche (2020), and Ullah et al. (2020). Meanwhile, the relationship between trade balance, private investment, and inflation and the real economic growth is found to be insignificant for all variables in the models.

Details on the diagnostic tests run on the residuals of the long-run equation are presented in the Table 5.27 – Table 5.29. In general, no issue is detected. For Serial Autocorrelation, the Breusch-Godfrey Lagrange-Multiplier (LM) test result indicates the null hypothesis of no serial autocorrelation is accepted. The Breusch-Pagan-Godfrey test for heteroscedasticity shows in general there is no evidence of heteroskedasticity. Meanwhile the test for checking the model specification, which is the Ramsey RESET

specifies that the model has no evidence of any misspecification and based on CUSUM as well as CUSUM square, the cumulative sum of the recursive residuals is clearly within the boundaries and hence confirm the stability of the long run coefficients of regressors.



Table 5.15 IB's ARDL Estimate of Long-Run Relationship in the Absence of IFSA 2013

Regressors	IA in the Model			IBD in the Model			IBF in the Model			IBA in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
LIPI (-1)	-0.343	-5.449	0.000	-0.377	-5.797	0.000	-0.378	-5.804	0.000	-0.379	-5.835	0.000
LIA	0.055	1.419	0.158	-	-	-	-	-	-	-	-	-
LIBD	-	-	-	0.049	2.445	0.016	-	-	-	-	-	-
LIBF	-	-	-	-	-	-	0.039	2.462	0.015	-	-	-
LIBA	-	-	-	-	-	-	-	-	-	0.048	0.048	0.012
LTB	0.012	0.494	0.622	0.014	0.643	0.521	0.014	0.620	0.536	0.014	0.617	0.538
PI	3.02E-06	0.004	0.997	0.0002	0.355	0.723	0.0002	0.337	0.737	0.0002	0.331	0.741
INF	-0.002	-0.315	0.753	-1.60E-05	-0.003	0.998	-0.0002	-0.033	0.973	6.70E-05	0.011	0.991
INTERCEPT	1.356	4.284	0.000	1.479	4.967	0.000	1.531	5.133	0.000	1.493	5.019	0.000
Diagnostic test statistics: Serial Correlation Ramsey Reset Test CUSUM and CUSUM Square Test Heteroscedasticity Multicollinearity Test No serial correlation There is no issue of misspecification The model is stable No heteroscedasticity There is no issue of multicollinearity												

ARDL Estimate of Long-Run Relationship in the Presence of IFSA 2013

For the long-run estimates of IB-growth nexus in the presence of IFSA 2013, the results for all variables in the models are presented in Table 5.16 and Table 17 (Pre- and Post-IFSA, respectively) as shown below. For the long-run estimates of the pre-IFSA period, the results for all models are presented in Table 5.16 below. It is shown that the associations between 3 out of the 4 variables, which include *IBD*, *IBF*, and *IBA* in the models, and long-run economic growth are negatively insignificant. Meanwhile, *IA* in the model is found to be negatively associated with the real economic growth significantly, where a 1% increase in investment account will decrease the real economic growth by 0.147%. This is due to the reclassification of some outstanding *IA*, which was essentially a type of deposit (pre-IFSA), to a legitimate investment product (post-IFSA). The notable decline in the outstanding amount of *IA* peaked in June of 2016, and as of right now, it is steadily increasing and gaining traction, but at a slower rate than the outstanding amount recorded before IFSA. Meanwhile, the link between trade balance, private investment, and inflation and the real economic growth is found to be insignificant for all variables in the models, except for private investment in *IA* model, in which it is found that a 1% increase in private investment will increase the real economic growth by 0.001%. Besides, the diagnostic tests are also taken, and the findings as depicted in Table 5.27 – Table 5.29 illustrate that all models are homoscedastic, have no serial correlation, and correctly specified, which means that they are efficient, unbiased, and stable.

Section 2 (1) of IFSA has defined that an Islamic financial institution shall have transitioned all investment deposit products either into investment accounts or Islamic deposits, starting from 1 July 2015. In Table 5.17 below, the results for the long-run estimates of the post-IFSA period are presented. It is shown that the associations between all variables in the models, which include *IA*, *IBD*, *IBF*, and *IBA*, or IB sector in general, and the long-run real economic growth are positively significant at 1% significance level. For *IA* in the model, a 1% increase in investment account will increase the real economic growth by 0.128%, while for *IBD* in the model, a 1% increase in Islamic banks deposit will increase the real economic growth by 0.0000005%. In addition, for *IBF* in the model, a 1% increase in Islamic banks financing will increase the real economic growth by 0.301%, whereas for *IBA* in the model, a 1% increase in

Islamic banks asset will increase the real economic growth by 0.286%. Meanwhile, the link between trade balance, private investment, and inflation and the real economic growth is found to be insignificant for all variables in the models, except for inflation in *IA* in the model, in which it is found that a 1% increase in inflation will decrease the real economic growth by 0.004%. Besides, the diagnostic tests are also taken, and the findings are depicted in Table 5.27 – Table 5.29. The findings illustrate that all models are homoscedastic, have no serial correlation, and correctly specified, which means that they are efficient, unbiased, and stable. The findings confirm that IFSA 2013 could enhance the Islamic banking-growth nexus in the long run, consistent with the study of Yusof and Loong (2020) as the overall results show that IB sector is positively and significantly associated with the real economic growth post-IFSA 2013.



Table 5.16 IB's ARDL Estimate of Long-Run Relationship in the Presence of IFSA 2013 (Pre-IFSA 2013)

Regressors	IA in the Model			IBD in the Model			IBF in the Model			IBA in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
<i>LIPI</i> (-1)	-0.476	-4.504	0.000	-0.475	-4.591	0.000	-0.474	-4.664	0.000	-0.429	-4.166	0.0001
<i>LIA</i>	-0.147	-2.235	0.030	-	-	-	-	-	-	-	-	-
<i>LIBD</i>	-	-	-	-0.004	-0.256	0.799	-	-	-	-	-	-
<i>LIBF</i>	-	-	-	-	-	-	-0.021	-0.615	0.541	-	-	-
<i>LIBA</i>	-	-	-	-	-	-	-	-	-	-0.005	-0.118	0.907
<i>LTB</i>	-0.013	-0.926	0.359	-0.006	-0.420	0.676	-0.010	-0.722	0.473	-0.007	-0.483	0.631
<i>PI</i>	0.001	1.938	0.058	0.0003	1.002	0.320	0.0003	1.072	0.288	0.0003	0.809	0.421
<i>INF</i>	-0.004	-1.443	0.155	0.0002	0.082	0.935	0.0009	0.352	0.726	0.00007	0.027	0.978
INTERCEP T	6.617	7.391	0.000	2.304	3.869	0.0002	5.035	9.038	0.000	4.815	7.425	0.000
				Diagnostic test statistics: Serial Correlation Ramsey Reset Test CUSUM and CUSUM Square Test Heteroscedasticity Multicollinearity Test								
				No serial correlation There is no issue of misspecification The model is stable No heteroscedasticity. There is no issue of multicollinearity.								

Table 5.17 IB's ARDL Estimate of Long-Run Relationship in the Presence of IFSA 2013 (Post-IFSA 2013)

Regressors	IA in the Model			IBD in the Model			IBF in the Model			IBA in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
<i>LIPI</i> (-1)	-0.861	-5.963	0.000	-0.897	-5.898	0.000	-1.182	-8.143	0.000	-1.116	-7.789	0.000
<i>LIA</i>	0.128	3.362	0.002	-	-	-	-	-	-	-	-	-
<i>LIBD</i>	-	-	-	0.0000005	5.076	0.000	-	-	-	-	-	-
<i>LIBF</i>	-	-	-	-	-	-	0.301	9.664	0.000	-	-	-
<i>LIBA</i>	-	-	-	-	-	-	-	-	-	0.286	8.539	0.000
<i>LTB</i>	0.020	1.544	0.130	0.007	0.561	0.578	0.005	0.425	0.673	0.009	0.754	0.455
<i>PI</i>	0.0001	0.344	0.732	0.0002	0.614	0.543	0.0003	0.978	0.333	0.0004	1.408	0.167
<i>INF</i>	-0.010	-2.392	0.021	0.0006	0.139	0.891	0.002	0.381	0.705	0.0006	0.125	0.901
INTERCEPT	3.071	6.787	0.000	4.372	34.575	0.000	0.714	1.797	0.078	0.799	1.844	0.072
Diagnostic test statistics:												
				Serial Correlation				No serial correlation				
				Ramsey Reset Test				There is no issue of misspecification				
				CUSUM and CUSUM Square Test				The model is stable				
				Heteroscedasticity				No heteroscedasticity				
				Multicollinearity Test				There is no issue of multicollinearity				

5.2.2.5.2 Islamic Capital Market Sector

ARDL Estimate of Long-Run Relationship in the Absence of IFSA 2013

In Table 5.18 below, the results for ICM sector, which consists of both *SCS* (as a proxy for ICM liquidity) and *SCMC* (as a proxy for ICM size) in the models are presented. For *SCS* in the model, a 1% increase in *Shari'ah*-compliant securities decreases the long-run real economic growth by 0.619%, and the relationship is significant at 5% level. This result is consistent with the study of Chu and Chu (2020), who found that an excessive liquidity can affect the economic growth negatively, plus the growth-enhancing effect of financial liquidity is more robust only in high-income countries. This is supported by the study of Viswanathan and Acharya (2011), He and Xiong (2012), and Ghenimi et al. (2017), who proposed that an excessive credit supplied (liquidation) by the financial intermediaries can lead to the deterioration of balance sheet's quality and hence, lead to the financial system's instability in the long run. On the other hand, for *SCMC* in the model, a 1% increase in *Shari'ah*-compliant market capitalization increases the long-run real economic growth by 0.173%, and the relationship is significant at 1% level. The overall results show that only *SCMC* in the model is adhered to the supply-leading hypothesis in the long run. This result is consistent with the studies of Musa et al. (2020) and Tan and Shafi (2021), which suggested that the economic growth intensifies as the ICM size increases. Meanwhile, the link between trade balance, private investment, and inflation and the real economic growth is found to be insignificant in both variables in the models, except for *TB* in *SCS* in the model, where it is found that the relationship between trade balance and real economic growth is positive at 10% level.

Meanwhile the details on the diagnostic test run on the residuals of the long-run equation are presented in Table 5.27 – Table 5.29. In general, no issue is detected. For serial autocorrelation, the Breusch-Godfrey Lagrange-Multiplier (LM) test indicates the null hypothesis of no serial autocorrelation is not rejected. The Breusch-Pagan-Godfrey test for heteroscedasticity shows in general there is no evidence of heteroskedasticity at residuals. Meanwhile the test for model specification i.e. the Ramsey RESET specifies that the model has no evidence of any misspecification and based on CUSUM as well

as CUSUM square, the cumulative sum of the recursive residuals is clearly within the boundaries and hence confirm the stability of the long run coefficients of regressors.



Table 5.18 ICM's ARDL Estimate of Long-Run Relationship in the Absence of IFSA 2013

Regressors	SCS in the Model			SCMC in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
<i>LIPI</i> (-1)	-0.334	-2.727	0.011	-0.392	-3.557	0.0009
<i>LSCS</i>	-0.619	-2.437	0.022	-	-	-
<i>LSCMC</i>	-	-	-	0.173	3.26	0.002
<i>LTB</i>	0.319	1.677	0.105	0.082	1.497	0.142
<i>PI</i>	0.004	1.306	0.203	0.0003	0.358	0.722
<i>INF</i>	-0.020	-1.217	0.234	0.001	0.064	0.949
INTERCEPT	1.966	2.352	0.026	1.087	2.166	0.036
Diagnostic test statistics: Serial Correlation Ramsey Reset Test CUSUM and CUSUM Square Test Heteroscedasticity Multicollinearity Test No Serial Correlation There is no issue of misspecification The model is stable No Heteroscedasticity There is no issue of multicollinearity						

ARDL Estimate of Long-Run Relationship in the Presence of IFSA 2013

IFSA 2013 does not repeal Capital Markets and Services Act 2007 (CMSA) but further supports the act in governing ICM in Malaysia via ensuring the stability and soundness of Islamic foreign exchange market, Islamic money market and also Islamic financial institutions in general as stated in the Part X of IFSA 2013. The policy document (IFSA) for ICM is effective from 14 February 2014. Similar to the previous section, the long-run relationship of the aggregate system is investigated to provide the detailed insight of the relationship between dependent variable and independent variables. In this analysis, the responses of $\ln IPI$ to other variables are analysed, given evidence of cointegration between the variables, which is confirmed via the outcome from the bound test.

For the long-run estimates of the pre-IFSA period, the results for both *SCS* and *SCMC* in the models are presented in Table 5.19 below. For *SCS* in the model, it is shown that the association between the *Shari'ah*-compliant securities and long-run economic growth are positively insignificant. On the other hand, for *SCMC* in the model, it is shown that the associations between the *Shari'ah*-compliant market capitalization and long-run economic growth are positively significant at 10% significance level, where a 1% increase in *Shari'ah*-compliant market capitalization will increase the real economic growth by 0.293%. Meanwhile, the link between trade balance, private investment, and inflation and the real economic growth is found to be insignificant for both *SCS* and *SCMC* in the models, except for trade balance in *SCMC* in the model, where it is found that trade balance is positively related to the real economic growth at 5% significance level, specifically, a 1% increase in trade balance will increase the real economic growth by 0.055%.

On the other hand, for the long-run estimates of the post-IFSA period, the results for both *SCS* and *SCMC* in the models are presented in Table 5.20 below. For *SCS* in the model, it is shown that the associations between the *Shari'ah*-compliant securities and long-run economic growth are positively significant at 1% significance level, where a 1% increase in *Shari'ah*-compliant securities will increase the real economic growth by 1.39%. On the other hand, for *SCMC* in the model, it is shown that the association

between the *Shari'ah*-compliant market capitalization and long-run economic growth are negatively insignificant at 10% significance level. Meanwhile, the link between trade balance, private investment, and inflation and the real economic growth is found to be insignificant for *SCMC* in the model. However, for *SCS* in the model, it is found that trade balance is positively related to the real economic growth at 5% significance level, where a 1% increase in the trade balance will increase the real economic growth by 0.082%. Moreover, it is also found that private investment is positively related to the real economic growth at 5% significance level, where a 1% increase in the private investment will increase the real economic growth by 0.0009%.

Meanwhile the details on the diagnostic test run on the residuals of the long-run equation are presented in the Table 5.27 – Table 5.29. In general, no issues are detected. For serial autocorrelation, the Breusch-Godfrey Lagrange-Multiplier (LM) test indicates the null hypothesis of no serial autocorrelation is accepted. The Breusch-Pagan-Godfrey test for heteroscedasticity shows in general there is no evidence of heteroskedasticity. Meanwhile the test for checking the model specification, which is the Ramsey RESET specifies that the model has no evidence of any misspecification and based on CUSUM as well as CUSUM square, the cumulative sum of the recursive residuals is clearly within the boundaries and hence confirm the stability of the long run coefficients of regressors. The results depict that the *SCS*-growth nexus is enhanced by IFSA 2013 but that there is no evidence that IFSA 2013 could support the *SCMC*-growth nexus in the long run. This is because IFSA is only introduced in the beginning of June 2013 and the grace period for compliance to IFSA are accorded. Effectively compliance to IFSA only starts on February 2014. Hence, it is rather limited from data perspective, especially for the analysis that is related to post IFSA period. Moreover, ICM is not directly regulated by IFSA 2013 but instead is regulated by CMSA 2007.

Table 5.19 ICM's ARDL Estimate of Long-Run Relationship in the Presence of IFSA 2013 (Pre-IFSA 2013)

Regressors	SCS in the Model			SCMC in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
<i>LIPI</i> (-1)	1.522	1.466	0.381	-0.329	-1.997	0.060
<i>LSCS</i>	3.395	1.702	0.338	-	-	-
<i>LSCMC</i>	-	-	-	0.293	2.084	0.050
<i>LTB</i>	-0.023	-0.553	0.678	0.055	2.269	0.034
<i>PI</i>	0.001	1.540	0.367	0.0002	0.367	0.717
<i>INF</i>	0.013	1.817	0.320	-0.003	-0.757	0.458
INTERCEPT	-1.372	-1.374	0.401	1.237	0.638	0.531
Diagnostic test statistics: Serial Correlation Ramsey Reset Test CUSUM and CUSUM Square Test Heteroscedasticity Multicollinearity Test No Serial Correlation There is no issue of misspecification The model is stable No Heteroscedasticity There is no issue of multicollinearity						

Table 5.20 ICM's ARDL Estimate of Long-Run Relationship in the Presence of IFSA 2013 (Post-IFSA 2013)

Regressors	SCS in the Model			SCMC in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
<i>LIPI</i> (-1)	-1.291	-8.281	0.000	-0.280	-2.731	0.052
<i>LSCS</i>	1.387	6.182	0.000	-	-	-
<i>LSCMC</i>	-	-	-	-0.678	-1.515	0.204
<i>LTB</i>	0.082	2.955	0.012	0.010	0.633	0.561
<i>PI</i>	0.0009	2.454	0.030	-0.0001	-0.512	0.635
<i>INF</i>	-0.0042	-0.765	0.459	0.003	1.054	0.351
INTERCEPT	-4.927	-3.514	0.004	9.161	3.042	0.038
Diagnostic test statistics: Serial Correlation Ramsey Reset Test CUSUM and CUSUM Square Test Heteroscedasticity Multicollinearity Test No Serial Correlation There is no issue of misspecification The model is stable No Heteroscedasticity There is no issue of multicollinearity.						

5.2.2.6 Results of the Short-Run Relationship

5.2.2.6.1 Islamic Banking Sector

ARDL Estimate of Short-Run Relationship in the Absence of IFSA 2013

To provide the detailed insight of the relationship between dependent variable and independent variables in the short run, the aggregate system analysis is extended, and the short-run relationship of the aggregate system is investigated. In this analysis, the responses of *ln IPI* to other variables are analysed.

In Table 5.21 below, the results for all variables in the models are presented. In the absence of IFSA 2013, it is shown that the associations between the focus variables in 3 out of 4 models, which are *IBD*, *IBF*, and *IBA*, and economic growth are positive and significant at 5% level respectively. For *IBD* in the model, a 1% increase in Islamic banks deposit increases the real economic growth by 0.019%, while for *IBF* in the model, a 1% increase in Islamic banks financing increases the real economic growth by 0.015% whereas for *IBA* in the model, a 1% increase in Islamic banks asset increase the real economic growth by 0.018%. In addition, for *IA* in the model, *IA* is positively affecting the real economic growth insignificantly.

The overall results show that most of the models are supporting the supply-leading hypothesis in the short run. Meanwhile, the relationship between private investment, trade balance and inflation and the real economic growth is found to be insignificant for all variables in the models. Besides, the *IA* in the model's error correction term (ECT) is estimated to be -0.343 and it is statistically significant at 1%, which suggests that there is around 34.3% of deviations that are adjusted in one quarter from the equilibrium path. Moreover, the ECT for *IBD*, *IBF* and *IBA* in the models are found to be around -0.377, -0.378 and -0.380 respectively. They are all statistically significant at 1%, which implies that 37.7%, 37.8%, and 38.0% of deviations are adjusted in one quarter from the equilibrium path correspondingly. Furthermore, the R-squared values for all models, which include *IA*, *IBD*, *IBF*, and *IBA* variables are found

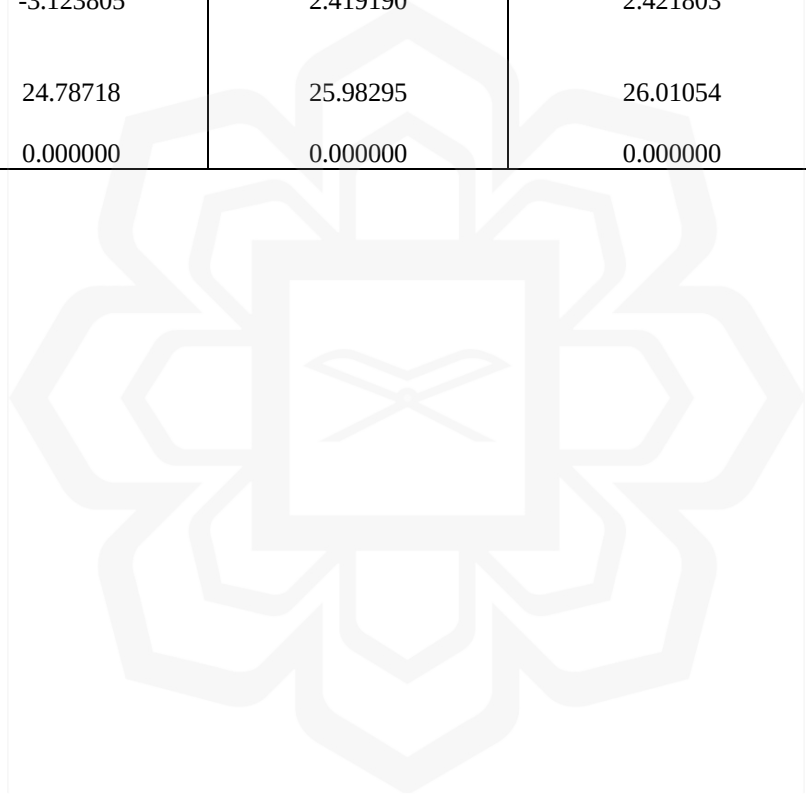
to be around 0.46, which means that approximately 46% of the data fit the regression models. Meanwhile the details on the diagnostic test run on the residuals of the short-run equation are presented in the Table 5.27 – Table 5.29. Generally, no issue is detected in terms of serial autocorrelation, heteroscedasticity, and model specification.



Table 5.21 IB's ARDL Estimate of Short-Run Relationship in the Absence of IFSA 2013

Regressors	IA in the Model			IBD in the Model			IBF in the Model			IBA in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
$\Delta LIPI (-1)$	-0.657	10.429	0.000	0.623	9.563	0.000	0.622	9.559	0.000	0.620	9.524	0.000
ΔLIA	0.019	1.389	0.167	-	-	-	-	-	-	-	-	-
$\Delta LIBD$	-	-	-	0.019	2.288	0.024	-	-	-	-	-	-
$\Delta LIBF$	-	-	-	-	-	-	0.015	2.305	0.023	-	-	-
$\Delta LIBA$	-	-	-	-	-	-	-	-	-	0.018	2.374	0.019
ΔLTB	0.004	0.498	0.619	0.005	0.647	0.518	0.005	0.625	0.533	0.005	0.622	0.535
ΔPI	1.04E-06	0.004	0.997	8.38E-05	0.357	0.721	7.95E-05	0.339	0.735	7.81E-05	0.334	0.739
ΔINF	-0.001	-0.316	0.752	-6.04E-06	-0.003	0.998	-7.51E-05	-0.033	0.973	2.54E-05	0.011	0.991
INTERCEPT	1.355	4.284	0.000	-	-	-	-	-	-	-	-	-
ECM (-1)	-0.343	-5.672	0.000	-0.377	-6.021	0.000	-0.378	-6.028	0.000	-0.380	-6.061	0.000
R-squared	0.454084			0.465787			0.466051			0.467166		
Adjusted R-squared	0.435765			0.447860			0.448133			0.449285		
SE Regression	0.046948			0.046442			0.046431			0.046382		
Sum squared residual	0.328412			0.321372			0.321213			0.320543		
Akaike info criterion												

DW-statistic	-3.241615	-3.263284	-3.263778	-3.265869
F-statistic	-3.123805	2.419190	2.421803	2.417918
Prob (F- statistics)	24.78718	25.98295	26.01054	26.12733
	0.000000	0.000000	0.000000	0.000000



ARDL Estimate of Short-Run Relationship in the Presence of IFSA 2013

In Table 5.22 below, the IB-growth nexus in the presence of IFSA 2013 (Pre-IFSA 2013)'s results for all variables in the models in the short run are presented. It is shown that the associations between 3 out of 4 models, which are *IBD*, *IBF*, and *IBA* in the models, and short-run economic growth are positively significant at 10%, 5% and 5% significance levels respectively. For *IBD* in the model, a 1% increase in Islamic banks deposit will increase the real economic growth by 0.488%, while for *IBF* in the model, a 1% increase in Islamic banks financing will increase the real economic growth by 1.402% whereas for *IBA* in the model, a 1% increase in Islamic banks asset will increase the real economic growth by 0.756%. In addition, for *IA* in the model, investment account is found to positively affect the real economic growth insignificantly.

The overall results show that most of the models are adhered to the supply-leading hypothesis in the short run. Meanwhile, the link between private investment and the real economic growth is found to be positively significant for *IA* in the model only, where a 1% increase in private investment will increase the real economic growth by 0.0008% at 5% significance level. Besides, the link between inflation and the real economic growth is found to be negatively significant for *IA* in the model only, where a 1% increase in inflation will decrease the real economic growth by 0.004% at 10% significance level. Furthermore, it is also found that there is a negative significant relationship between trade balance and real economic growth in the short run for all variables in the models, which include *IA*, *IBD*, *IBF*, and *IBA* at 1% significance level respectively, where an increase in 1% of trade balance will decrease the real economic growth by 0.013%, 0.006%, 0.010% and 0.007% correspondingly. Zahonogo (2016) stated that the growth effect of trade may vary in low-income countries as they could not have the social capacity necessary to absorb technology created in more developed economies because of financial or technological limitations, hence, some theoretical studies contended that trade openness may impede growth, even though it may have a favourable impact.

Moreover, the ECT for *IA*, *IBD*, *IBF* and *IBA* in the models are found to be around -0.476, -0.475, -0.474 and -0.429 respectively. They are all statistically

significant at 1%, which implies that 47.6%, 47.5%, 47.4% and 42.9% of deviations are adjusted in one quarter from the equilibrium path correspondingly. Furthermore, the R-squared values for *IA* in the model is found to be around 0.54, which means that approximately 54% of the data fit the regression models, whereas other variables in the models, which include *IBD*, *IBF*, and *IBA* are found to be around 0.29, which means that approximately 29% of the data fit the regression models.

In Table 5.23 below, the post-IFSA's results for all models in the short run are presented. It is shown that the associations between 2 out of 4 variables in the models, which are *IBD* and *IBF*, and short-run economic growth are positively significant at 10% and 1% significance levels respectively. For *IBD* in the model, a 1% increase in Islamic banks deposit will increase the real economic growth by 0.000001%, while for *IBF* in the model, a 1% increase in Islamic banks financing will increase the real economic growth by 0.355%. In addition, for *IA* and *IBA* in the models, investment account and Islamic banks asset are found to positively affect the real economic growth insignificantly.

The overall results show that half of the models are adhered to the supply-leading hypothesis in the short run. Meanwhile, the link between private investment and real economic growth is found to be positively significant for *IBA* model only, where a 1% increase in private investment will increase the real economic growth by 0.0004% at 10% significance level. Besides, the link between inflation and real economic growth is found to be negatively significant for *IA* model only, where a 1% increase in inflation will decrease the real economic growth by 0.010% at 5% significance level. Furthermore, it is also found that there is a positive significant relationship between trade balance and real economic growth in the short run for all models, which include *IA*, *IBD*, *IBF*, and *IBA* in the models at 1% significance level respectively, where an increase in 1% of trade balance will increase the real economic growth by 0.020%, 0.007%, 0.005% and 0.009% correspondingly. Moreover, the ECT for *IA*, *IBD*, *IBF* and *IBA* in the models are found to be around -0.86, -0.89, -1.18 and -1.12 respectively. They are all statistically significant at 1%, which implies that around 86%, 89%, 118% and 112% of deviations are adjusted in one quarter from the equilibrium path correspondingly. Furthermore, the R-squared values for *IA* in the model is found to be

around 0.50, which means that approximately 50% of the data fit the regression models, whereas other models, which include *IBD*, *IBF*, and *IBA* in the models are found to be around 0.60-0.65, which means that approximately 60% - 65% of the data fit the regression models.

The findings depict that there is no evidence that IFSA 2013 could support the IB-growth nexus in the short run. This is due to the fact that IFSA is only introduced in the beginning of June 2013 and the grace period for compliance to IFSA are accorded. Effectively compliance to IFSA only starts on July 2015. Hence, it is rather limited from data perspective, especially for the analysis that is related to post IFSA period. Besides, the diagnostic tests are conducted. The findings illustrate that the residuals in all variables in the models are normally distributed, homoscedastic, and not serially correlated. Besides, they are also correctly specified, which means that they are efficient, unbiased, and stable, and therefore, suitable for policy recommendations. The details of the diagnostic tests are illustrated in the Table 5.27 – Table 5.29.

Table 5.22 IB's ARDL Estimate of Short-Run Relationship in the Presence of IFSA 2013 (Pre-IFSA 2013)

Regressors	IA in the Model			IBD in the Model			IBF in the Model			IBA in the Model		
	Coefficient s	t-Statistics	P-value	Coefficient s	t-Statistics	P-value	Coefficient s	t-Statistics	P-value	Coefficient s	t-Statistics	P-value
$\Delta LIPI (-1)$	-	-	-	-	-	-	-	-	-	-	-	-
ΔLIA	-0.114	-0.803	0.426	-	-	-	-	-	-	-	-	-
$\Delta LIBD$	-	-	-	0.488	1.670	0.099	-	-	-	-	-	-
$\Delta LIBF$	-	-	-	-	-	-	1.402	2.250	0.028	-	-	-
$\Delta LIBA$	-	-	-	-	-	-	-	-	-	0.756	2.461	0.016
ΔLTB	-0.013	-3.943	0.0003	-0.006	-3.722	0.0004	-0.010	-4.552	0.000	-0.007	-3.982	0.0002
ΔPI	0.0008	2.093	0.042	0.0004	1.070	0.288	0.0004	1.139	0.258	0.0003	0.867	0.389
ΔINF	-0.004	-1.707	0.094	0.0002	0.086	0.932	0.0009	0.369	0.713	0.00008	0.028	0.977
INTERCEPT	-	-	-	-	-	-	-	-	-	-	-	-
ECM (-1)	-0.476	-4.714	0.000	-0.475	-4.685	0.000	-0.474	-4.743	0.000	-0.429	-4.247	0.0001
R-squared	0.537078			0.270855			0.290971			0.299274		
Adjusted R-squared	0.412445			0.230346			0.251580			0.260344		
SE	0.038091			0.044110			0.043497			0.043242		
Regression	0.075449			0.140091			0.136226			0.134631		
Sum squared residual	-3.503358			-3.341523			-3.369499			-3.381279		
Akaike info criterion	2.496068			2.411464			2.356969			2.414819		
DW-statistic												

Table 5.23 IB's ARDL Estimate of Short-Run Relationship in the Presence of IFSA 2013 (Post-IFSA 2013)

Regressors	IA in the Model			IBD in the Model			IBF in the Model			IBA in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
$\Delta LIPI (-1)$	-	-	-	-	-	-	-	-	-	-	-	-
ΔLIA	0.184	1.549	0.129	-	-	-	-	-	-	-	-	-
$\Delta LIBD$	-	-	-	0.000001	1.946	0.058	-	-	-	-	-	-
$\Delta LIBF$	-	-	-	-	-	-	0.355	6.017	0.000	-	-	-
$\Delta LIBA$	-	-	-	-	-	-	-	-	-	0.122	0.302	0.764
ΔLTB	0.020	6.329	0.000	0.007	4.103	0.0002	0.005	5.151	0.000	0.009	6.311	0.000
ΔPI	0.0001	0.418	0.678	0.0002	0.773	0.444	0.0003	1.172	0.247	0.0004	1.687	0.099
ΔINF	-0.010	-2.451	0.018	0.0006	0.174	0.863	0.0016	0.491	0.626	0.0005	0.159	0.874
INTERCEPT	-	-	-	-	-	-	-	-	-	-	-	-
ECM (-1)	-0.861	-6.384	0.000	-0.897	-6.127	0.000	-1.182	-8.418	0.000	-1.116	-8.067	0.000
R-squared	0.496519			0.640872			0.591815			0.650204		
Adjusted R-squared.	0.441793			0.581017			0.566824			0.602504		
SE Regression	0.034467			0.030231			0.030158			0.029253		
Sum squared residual.	0.054646			0.038386			0.044565			0.037653		
Akaike info criterion	-3.789479			-4.014220			-4.092276			-4.098791		
DW-statistic	2.125586			2.051752			1.952381			1.960334		

5.2.2.6.2 Islamic Capital Market

ARDL Estimate of Short-Run Relationship in the Absence of IFSA 2013

In Table 5.24 below, the results for Islamic capital market-growth nexus in the absence of IFSA 2013 are presented. It is shown that the association between SCS and real economic growth in the short run is positive and significant at 5% level, where a 1% increase in *Shari'ah* compliant securities increases the real economic growth by 0.249%. Similarly, the relationship between SCMC and real economic growth in the short run is positive and significant at 1% level, where a 1% increase in *Shari'ah* compliant market capitalization increases the real economic growth by 0.068%.

The overall results show that both SCS and SCMC in the models are supporting the supply-leading hypothesis in the short run. Meanwhile, the relationships between trade balance, private investment, and inflation and the real economic growth are insignificant in the models. The ECT for SCS and SCMC in the models are -0.334 and -0.392 respectively, where they are both statistically significant at 1%, which implies that around 34% and 39% of deviations of dependent variables are returning to the equilibriums. Furthermore, the R-squared values for SCS in the model is 0.64, which means that approximately 64% of the data fit the regression model, whereas for SCMC in the model, the R-squared values is 0.63, which means that approximately 63% of the data fit the regression model. The details on the diagnostic test run on the residuals of the short-run equation are presented in the Table 27 – Table 29. Generally, no issues of serial correlation, heteroscedasticity and misspecification are detected.

Table 5.24 ICM's ARDL Estimate of Short-Run Relationship in the Absence of IFSA 2013

Regressors	SCS in the Model			SCMC in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
$\Delta LPI (-1)$	0.272	1.952	0.061	0.608	5.517	0.000
$\Delta LSCS$	0.249	2.661	0.015	-	-	-
$\Delta LSCMC$	-	-	-	0.068	2.973	0.005
ΔLTB	0.013	1.709	0.103	0.032	1.662	0.103
ΔPI	0.0002	1.049	0.306	0.0001	0.365	0.717
ΔINF	0.0003	0.113	0.911	0.0002	0.064	0.949

INTERCEPT	-	-	-	-	-	-
ECM (-1)	-0.334	-4.734	0.0001	-0.392	-4.358	0.0001
R-squared	0.644681			0.633244		
Adjusted R-squared	0.478125			0.592493		
SE Regression	0.028847			0.035827		
Sum squared residual	0.026630			0.057761		
Akaike info criterion	-3.992387			-3.710094		
DW-statistic	2.339939			1.978203		
F-statistic	6.408500			15.53944		
Prob (F-statistics)	0.000007			0.000000		

ARDL Estimate of Short-Run Relationship in the Presence of IFSA 2013

In Table 5.25 below, the pre-IFSA's short-run results for ICM sector are presented. It is shown that the associations between both *SCS* and *SCMC*, and short-run real economic growth are positively significant at 10% and 1% significance level respectively, where a 1% increase in *SCS* and *SCMC* will increase the real economic growth by 0.931% and 0.097% correspondingly.

The overall results show that ICM model is adhered to the supply-leading hypothesis in the short run. Meanwhile, the link between private investment, and inflation and the real economic growth is found to be insignificant for all models. However, it is found that there is a negative significant relationship between trade balance and real economic growth for *SCS* in the model at 10% significance level, where an increase in 1% of trade balance will decrease the real economic growth by 0.023%. On the other hand, for *SCMC* in the model, it is found that there is a positive significant relationship between trade balance and real economic growth at 1% significance level, where an increase in 1% of trade balance will increase the real economic growth by 0.055%. Besides, the *SCS* and *SCMC* in the models' error correction term (ECT) is found to be around -1.52 and -0.33 and is statistically significant at 10% and 1% respectively, which implies that around 152% and 39% of deviations are adjusted in

one quarter from the equilibrium path correspondingly. Furthermore, the R-squared values for *SCS* in the model is found to be around 0.99, which means that approximately 99% of the data fit the regression model, whereas for *SCMC* in the model, the R-squared values is found to be around 0.50, which means that approximately 50% of the data fit the regression model.

In Table 5.26 below, the post-IFSA's short-run results for ICM sector are presented. It is shown that the associations between *SCS* and short-run real economic growth are positively significant at 1% significance level, where a 1% increase in *SCS* will increase the real economic growth by 1.789%. Meanwhile, it is found that the link between *SCMC* and short-run real economic growth is negatively insignificant.

The overall results show that only *SCS* model is adhered to the supply-leading hypothesis in the short run. Meanwhile, the link between private investment, and inflation and the real economic growth is found to be insignificant for all models. However, it is found that there is a positive significant relationship between trade balance and real economic growth for *SCS* and *SCMC* in the models at 1% significance level, where an increase in 1% of trade balance will increase the real economic growth by 0.082% and 0.010% respectively. Besides, the *SCS* and *SCMC* in the models' error correction term (ECT) is found to be around -1.29 and -0.28 and is statistically significant at 1% significance level, which implies that around 129% and 28% of deviations are adjusted in one quarter from the equilibrium path correspondingly. Furthermore, the R-squared values for *SCS* in the model is found to be around 0.88, which means that approximately 88% of the data fit the regression model, whereas for *SCMC* in the model, the R-squared values is found to be around 0.94, which means that approximately 94% of the data fit the regression model.

The results depict that the *SCS*-growth nexus is enhanced by IFSA 2013 but that there is no evidence that IFSA 2013 could support the *SCMC*-growth nexus in the short run. This is due to the fact that IFSA is only introduced in the beginning of June 2013 and the grace period for compliance to IFSA are accorded. Effectively compliance to IFSA only starts on February 2014. Hence, it is rather limited from data perspective, especially for the analysis that is related to post IFSA period. Moreover, ICM is not

directly regulated by IFSA 2013 but instead is regulated by CMSA 2007. Besides, the diagnostic tests are undertaken, and the findings illustrate that both models are normally distributed, homoscedastic, and have no serial correlation. Besides, the models are also correctly specified, which means that they are efficient, unbiased, and stable, and therefore, suitable for policy recommendations. The details of the diagnostic tests are illustrated in the Table 27 – Table 29.

Table 5.25 ICM's ARDL Estimate of Short-Run Relationship in the Presence of IFSA 2013 (Pre-IFSA 2013)

Regressors	SCS in the Model			SCMC in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
$\Delta LIPI (-1)$	-0.988	-6.901	0.092	1.852	3.879	0.161
$\Delta LSCS$	0.931	6.984	0.091	-	-	-
$\Delta LSCMC$	-	-	-	0.097	3.007	0.007
ΔLTB	-0.023	-9.785	0.065	0.055	3.993	0.0007
ΔPI	0.0013	4.099	0.152	0.0002	0.423	0.677
ΔINF	0.012	3.271	0.19	-0.003	-1.037	0.312
INTERCEPT	-	-	-	-	-	-
ECM (-1)	-1.522	8.491	0.075	-0.329	-3.902	0.0009
R-squared	0.991820			0.497548		
Adjusted R-squared	0.948193			0.429032		
SE	0.008180			0.026752		
Regression						
Sum squared residual	0.000201			0.015744		
Akaike info criterion	-6.971316			-4.263798		
DW-statistic	2.943931			2.050321		

Table 5.26 ICM's ARDL Estimate of Short-Run Relationship in the Presence of IFSA 2013 (Post-IFSA 2013)

Regressors	SCS in the Model			SCMC in the Model		
	Coefficients	t-Statistics	P-value	Coefficients	t-Statistics	P-value
$\Delta LIPI (-1)$	0.342	3.127	0.009	0.174	3.530	0.024
$\Delta LSCS$	1.789	5.519	0.0001	-	-	-
$\Delta LSCMC$	-	-	-	-0.189	-2.106	0.103
ΔLTB	0.082	9.296	0.000	0.010	6.200	0.003
ΔPI	0.0009	3.521	0.004	-0.0001	-1.183	0.302
ΔINF	-0.004	-0.958	0.357	0.003	1.825	0.142
INTERCEPT	-	-	-	-	-	-
ECM (-1)	-1.291	-9.605	0.000	-0.280	-4.901	0.008
R-squared	0.881604			0.942911		
Adjusted R-squared	0.839320			0.857279		
SE	0.019235			0.005958		
Regression						
Sum squared residual	0.005180			0.000213		
Akaike info criterion	-4.820817			-7.139123		
DW-statistic	2.126566			2.698419		

5.2.2.7 Diagnostic Tests

5.2.2.7.1 Serial Correlation Test

Table 5.27 depicts the results of serial correlation test of IB and ICM sectors. The null hypothesis of the serial correlation test is that there is no serial correlation amongst the variables in the models of any order up to ρ . The results show that the p-value of the

LM test of IB and ICM variables, which include *IBD*, *IA*, *IBF*, *IBA*, *SCS*, and *SCMC* is more than 0.05, which suggest that the null hypothesis is accepted, and it can be concluded that variables in the models are not serially correlated, hence, the models are fit.

Table 5.27 Results of Serial Correlation Test

Sector		Indicators	In the Absence of IFSA 2013	In the Presence of IFSA 2013	
				Pre-IFSA 2013	Post-IFSA
IB	Probability of F-statistics	<i>IBD</i>	0.6165	0.5331	1.0306
		<i>IA</i>	0.7530	0.4009	1.7301
		<i>IBF</i>	0.3142	0.0821	0.7651
		<i>IBA</i>	0.5088	0.6462	0.2732
	Probability of LM	<i>IBD</i>	0.5907	0.5893	0.3666
		<i>IA</i>	0.7372	0.6713	0.1382
		<i>IBF</i>	0.2853	0.9100	0.4184
		<i>IBA</i>	0.4823	0.4820	0.7092
ICM	Probability of F-statistics	<i>SCS</i>	0.3840	0.0142	0.2113
		<i>SCMC</i>	0.3393	0.0503	0.8810
	Probability of LM	<i>SCS</i>	0.3294	0.9798	0.6666
		<i>SCMC</i>	0.2864	0.9303	0.5316

5.2.2.7.2 Ramsey Reset Test

In ARDL, the Ramsey Reset test is applied to identify function misspecification because of variable omission bias or incorrect functional form. If the result is significant, the linear model is mis-specified.

Table 5.28 depicts the results of the Ramsey Reset test of IB and ICM sectors. The null hypothesis of the Ramsey Reset test is that the model has no omitted variables. The results show that the probability of F-statistics of IB and ICM variables, which include *IBD*, *IA*, *IBF*, *IBA*, *SCS*, and *SCMC* is more than 0.05, which suggest that the null hypothesis is accepted, and it can be concluded that variables in the models are correctly specified.

Table 5.28 Results of Ramsey Reset Test

Sector		Indicators	In the Absence of IFSA 2013	In the Presence of IFSA 2013	
				Pre-IFSA 2013	Post-IFSA 2013
IB	Probability of F-statistic	<i>IBD</i>	0.8430	0.2150	0.1798
		<i>IA</i>	0.9945	0.1090	0.2082
		<i>IBF</i>	0.6708	0.1596	0.1494
		<i>IBA</i>	0.6991	0.3526	0.0835
ICM	Probability of F-statistic	<i>SCS</i>	0.8660	0.2013	0.9891
		<i>SCMC</i>	0.3978	0.8918	0.6487

5.2.2.7.3 Heteroscedasticity Test

One of the most critical diagnostic tests for ARDL model is checking the conditional heteroscedasticity (ARCH). It is used to analyse effects left unexplained by econometric models. Table 5.29 depicts the results of heteroscedasticity test of IB and ICM sectors. The null hypothesis of the heteroscedasticity test is that the model is homoscedastic. The results show that the probability of F-statistics and Chi-square is not significant for all IB and ICM variables, which include *IBD*, *IA*, *IBF*, *IBA*, *SCS*, and *SCMC*, which suggest that the null hypothesis is accepted, and it can be concluded that the variables in the models are homoscedastic.

Table 5.29 Results of Heteroskedasticity Test

Sector		IB Indicators	In the Absence of IFSA 2013	In the Presence of IFSA 2013	
				Pre-IFSA 2013	Post-IFSA 2013
IB	Probability of F-statistics	<i>IBD</i>	0.9184	0.5471	0.4289
		<i>IA</i>	0.8315	0.6984	0.9745
		<i>IBF</i>	0.9317	0.7793	0.1299
		<i>IBA</i>	0.9151	0.5587	0.9671
	Probability of Chi-Square	<i>IBD</i>	0.9142	0.7207	0.2227
		<i>IA</i>	0.8246	0.2063	0.7185
		<i>IBF</i>	0.9281	0.7108	0.1258
		<i>IBA</i>	0.9109	0.7090	0.8331
ICM	Probability of F-statistics	<i>SCS</i>	0.9342	0.8504	0.7106
		<i>SCMC</i>	0.2867	0.8271	0.1512
	Probability of Chi-Square	<i>SCS</i>	0.8149	0.4366	0.7524
		<i>SCMC</i>	0.2780	0.5891	0.5096

5.2.3 Pearson Correlation Analysis (Takaful)

5.2.3.1 Before the Implementation of IFSA 2013

5.2.3.1.1 Descriptive Analysis

Table 5.30 as shown below depicts the descriptive analysis of the Takaful industry before the implementation of IFSA 2013, which covers the period of 2009 – 2013 (half-yearly). It consists of information on observations number, mean, standard error of mean, median, mode, standard deviation, variance, skewness, standard error of skewness, kurtosis, standard error of kurtosis, range, minimum, maximum and sum. The variables include industrial production index (*IP*), the combination of assets of general Takaful funds (*AGT*) and assets of family takaful funds (*AFT*), trade balance (*TB*), private investment (*PI*), and inflation (*INF*).

Moreover, the mean is ranging from 1.76 – 10.37, the standard error of mean is ranging from 0.015 – 4.26, the median, mode, standard deviation, and variance are ranging from 1.7 – 13.15, -16.1 – 9.35, 0.049 – 13.46, and 0.002 – 181.3 respectively. Furthermore, the skewness of all variables is ranging from -0.3 – 0.4, the standard error of skewness is around 0.687, the kurtosis is ranging from -1.14 – 2.596, and the standard error of kurtosis is around 1.334. In addition, the range for all variables is ranging from 0.16 – 42.9, the minimum value is ranging from -16.1 – 9.35, the maximum value is ranging from 3.5 – 26.8, and lastly, the sum is ranging from 17.6 – 103.7. The observations number is 10, which covers the period of 2009 – 2013 (half-yearly).

Table 5.30 Takaful's Descriptive Analysis (Before the Implementation of IFSA 2013)

Industrial Production Index		<i>In Asset of Takaful Funds (General + Family)</i>	Trade Balance	Private Investment	Inflation
N	Valid	10	10	10	10
	Missing	0	0	0	0
Mean		4.6554415	9.6841819	9.0266517	10.370
Std. Error of Mean		.01550174	.06512878	.09368416	4.2580
Median		4.6534585	9.7116678	9.1043492	13.150

Mode	4.69684	9.35154 ^a	8.34901 ^a	-16.1 ^a	1.6
Std. Deviation	.04902082	.20595529	.29625532	13.4650	1.3938
Variance	.002	.042	.088	181.307	1.943
Skewness	.403	-.323	-1.474	-.833	-1.121
Std. Error of Skewness	.687	.687	.687	.687	.687
Kurtosis	.034	-1.145	2.596	.419	2.360
Std. Error of Kurtosis	1.334	1.334	1.334	1.334	1.334
Range	.16564	.59759	1.06149	42.9	4.9
Minimum	4.58190	9.35154	8.34901	-16.1	-1.4
Maximum	4.74754	9.94913	9.41050	26.8	3.5
Sum	46.55442	96.84182	90.26652	103.7	17.6
a. Multiple modes exist. The smallest value is shown					

5.2.3.1.2 Correlation Analysis

In Table 5.31 below, the Pearson correlation results for Takaful sector before the implementation of IFSA 2013 are presented. Pearson correlation analysis is adopted instead of regression analysis due to the data scarcity. Before the implementation of IFSA, there is no segregation of the Takaful funds, in other words, *AGT* and *AFT* are combined. The results below show that the combination of *AGT* and *AFT* (*AGT + AFT*) has a significant positive correlation with the real economic growth at 1% significance level, as the value is less than 1 (0.885). In addition, trade balance, private investment, and inflation have no significant relationship with the real economic growth. The results depict that Takaful industry contributes significantly to the growth of the economy during the period of pre-implementation of IFSA 2013. The results are consistent with the studies of Rawat et al. (2017) and Aziz and Kassim (2020), which examined the Takaful-growth nexus without the IFSA effect and found that Takaful contributes to economic growth positively.

Table 5.31 Takaful's Pearson Correlation Analysis (Before the Implementation of IFSA 2013)

Industrial Production Index			In Asset of Takaful Funds (General + Family)	Trade Balance	Private Investment	Inflation
Industrial Production Index	Pearson Correlation	1	.885**	-.105	.065	.524
	Sig. (2-tailed)		.001	.773	.859	.120
	N	10	10	10	10	10
In Asset of Takaful Funds (General + Family)	Pearson Correlation	.885**	1	-.366	-.043	.608
	Sig. (2-tailed)	.001		.299	.905	.062
	N	10	10	10	10	10
Trade Balance	Pearson Correlation	-.105	-.366	1	.313	-.078
	Sig. (2-tailed)	.773	.299		.378	.830
	N	10	10	10	10	10
Private Investment	Pearson Correlation	.065	-.043	.313	1	.526
	Sig. (2-tailed)	.859	.905	.378		.118
	N	10	10	10	10	10
Inflation	Pearson Correlation	.524	.608	-.078	.526	1
	Sig. (2-tailed)	.120	.062	.830	.118	
	N	10	10	10	10	10
**. Correlation is significant at the 1% level (2-tailed).						

5.2.3.2 After the Implementation of IFSA 2013

5.2.3.2.1 Descriptive Analysis

Table 5.32 as shown below depicts the descriptive analysis of the Takaful industry after the implementation of IFSA 2013, which covers the period of 2013 – 2019 (half-yearly). It consists of information on number of observations, mean, standard error of mean, median, mode, standard deviation, variance, skewness, standard error of skewness, kurtosis, standard error of kurtosis, range, minimum, maximum and sum. Generally, for all variables, which include industrial production index (*IP*), assets of general Takaful funds (*AGT*), assets of family takaful funds (*AFT*), trade balance (*TB*), private

investment (*PI*), and inflation (*INF*), have 12 number of observations with no missing values.

Moreover, the mean is ranging from -0.058 – 10.09, the standard error of mean is ranging from 0.0167 – 5.39, the median, mode, standard deviation, and variance are ranging from -4.0 – 10.076, -24.7 – 9.848, 0.058 – 18.68, and 0.003 – 349.06 respectively. Furthermore, the skewness of all variables is ranging from -0.809 – 0.293, the standard error of skewness is around 0.637, the kurtosis is ranging from -1.17 – 0.372, and the standard error of kurtosis is around 1.232. In addition, the range for all variables is ranging from 0.20 – 58.8, the minimum value is ranging from -24.7– 9.848, the maximum value is ranging from 3.5 – 34.1, and lastly, the sum is ranging from -0.7 – 121.08.

Table 5.32 Takaful's Descriptive Analysis (After the Implementation of IFSA 2013)

Industrial Production Index			Assets of General Takaful Funds	Assets of Family Takaful Funds	Trade Balance	Private Investment	Inflation
N	Valid	12	12	12	12	12	12
	Missing	0	0	0	0	0	0
Mean		4.7159826	8.1673934	10.0902468	9.0027907	-.058	2.075
Std. Error of Mean		.01679876	.02719910	.04902529	.09346288	5.3934	.3167
Median		4.7180514	8.1706862	10.0766215	9.0626188	-4.000	2.100
Mode		4.61413 ^a	8.01734 ^a	9.84827 ^a	8.31434 ^a	-24.7 ^a	2.7
Std. Deviation		.05819261	.09422044	.16982859	.32376491	18.6833	1.0972
Variance		.003	.009	.029	.105	349.064	1.204
Skewness		-.132	.260	.293	-.809	.399	-.218
Std. Error of Skewness		.637	.637	.637	.637	.637	.637
Kurtosis		-.295	.099	-.820	.372	-1.013	-1.172
Std. Error of Kurtosis		1.232	1.232	1.232	1.232	1.232	1.232
Range		.20454	.33446	.53407	1.12361	58.8	3.3
Minimum		4.61413	8.01734	9.84827	8.31434	-24.7	.2
Maximum		4.81867	8.35180	10.38234	9.43795	34.1	3.5
Sum		56.59179	98.00872	121.08296	108.03349	-.7	24.9
a. Multiple modes exist. The smallest value is shown							

5.2.3.2.2 Correlation Analysis

In Table 5.33 below, the Pearson correlation results for Takaful sector after the implementation of IFSA 2013 are presented. Pearson correlation analysis is adopted instead of regression analysis due to the data scarcity. During the period of post-implementation of IFSA 2013, there is a segregation of the Takaful funds, in other words, *AGT* and *AFT* are separated. The results below show that both *AGT* and *AFT* do not have a significant positive correlation with the real economic growth. In addition, trade balance, private investment, and inflation also have no significant relationship with the real economic growth. The results depict that Takaful industry and the real economic growth have a positive correlation but not significant during the post-IFSA period.

IFSA came into effect on 31 June 2013, which resulted in the separation of *AGT* and *AFT*. Section 286 of IFSA has stated that a 5-year transition period from the time that IFSA comes into effect is allowed. Hence, it is rather limited from data perspective, especially for the analysis that is related to post-IFSA period. Due to this limitation, the result for Takaful-growth nexus post-IFSA period is positive but not significant. Moreover, according to Hasan (2015), the strict IFSA standards will undoubtedly have an impact on operating expenses in Takaful as a whole and will unquestionably put Takaful and Retakaful operators at a disadvantage as compared to their conventional competitors.

Table 5.33 Takaful's Pearson Correlation Analysis (After the Implementation of IFSA 2013)

Industrial Production Index			Assets of General Takaful Funds	Assets of Family Takaful Funds	Trade Balance	Private Investment	Inflation
Industrial Production Index	Pearson Correlation	1	.128	.215	.153	.036	-.139
	Sig. (2-tailed)		.692	.502	.636	.913	.667
	N	12	12	12	12	12	12
Assets of General	Pearson Correlation	.128	1	.966**	.683*	-.218	-.575

Takaful Funds	Sig. (2-tailed)	.692		.000	.014	.496	.050
	N	12	12	12	12	12	12
Assets of Family Takaful Funds	Pearson Correlation	.215	.966**	1	.634*	-.219	-.602*
	Sig. (2-tailed)	.502	.000		.027	.494	.038
	N	12	12	12	12	12	12
Trade Balance	Pearson Correlation	.153	.683*	.634*	1	-.642*	-.339
	Sig. (2-tailed)	.636	.014	.027		.024	.281
	N	12	12	12	12	12	12
Private Investment	Pearson Correlation	.036	-.218	-.219	-.642*	1	.295
	Sig. (2-tailed)	.913	.496	.494	.024		.352
	N	12	12	12	12	12	12
Inflation	Pearson Correlation	-.139	-.575	-.602*	-.339	.295	1
	Sig. (2-tailed)	.667	.050	.038	.281	.352	
	N	12	12	12	12	12	12
**. Correlation is significant at the 1% level (2-tailed).							
*. Correlation is significant at the 5% level (2-tailed).							

5.3 SUMMARY OF THE OUTPUT

Table 5.34 depicts the summary of the output of the quantitative results. In the absence of IFSA 2013, the associations between 3 out of 4 variables in the models, which are *IBD*, *IBF*, and *IBA*, and economic growth in the short run are positively significant at 5% significance level respectively, where a 1% increase in the variables increases the *IPI* by 0.019%, 0.015%, and 0.018% respectively. On the other hand, in the long run, the results depict that the associations between 3 out of 4 variables in the models, which are *IBD*, *IBF*, and *IBA*, and economic growth are positively significant at 5% significance level respectively, where an increase in 1% of the variables increases the real economic growth by 0.049%, 0.039%, and 0.048% respectively. Meanwhile for the *IA* in the model, the relationship is insignificant.

In the presence of IFSA 2013, for the period of pre-IFSA, which is between 2007 – 2013, it is shown that the associations between 3 out of 4 variables in the models, which are *IBD*, *IBF*, and *IBA*, and short-run economic growth are positively significant

at 10%, 5% and 5% significance levels respectively, where a 1% increase in the variables will increase the *IPI* by 0.49%, 1.40%, and 0.76%. In addition, for *IA* in the model, investment account is found to negatively affect the real economic growth insignificantly. Meanwhile, it is shown that the associations between 3 out of the 4 variables in the models, which include *IBD*, *IBF*, and *IBA*, and long-run economic growth are negatively insignificant, whereas *IA* in the model is found to be negatively associated with the real economic growth significantly, a 1% increase in *IA*, will decrease the real economic growth by -0.15%.

For the period of post-IFSA, which is between 2015 – 2019, it is shown that the associations between 2 out of 4 variables in the models, which are *IBD* and *IBF*, and short-run economic growth are positively significant at 10% and 1% significance levels respectively, where a 1% increase in the variables will increase the *IPI* by 0.000001% and 0.36%, respectively. Meanwhile, for *IA* and *IBA* in the models, investment account and Islamic banks asset are found to positively affect the real economic growth insignificantly. On the other hand, the long-run estimates for post-IFSA period shows a different outcome from the period prior to IFSA implementation. It is shown that the associations between all variables in the models, which include *IA*, *IBD*, *IBF*, and *IBA* models, or IB sector in general, and long-run real economic growth post-IFSA period are positively significant at 1% significance level, where a 1% increase in the variables will increase the real economic growth by 0.13%, 0.0000005%, 0.30%, and 0.29% respectively. The findings depict that there is no evidence that IFSA 2013 could support the IB-growth nexus in the short run, but in the long run, there is evidence that IFSA 2013 could assist the Islamic banking sector to improve economic growth in Malaysia via its rules and regulations.

For Islamic capital market, in the absence of IFSA 2013, the associations between both *SCS* and *SCMC* in the models and economic growth in the short run are positively significant at 5% and 1% significance level respectively, where a 1% increase in the variables increases the *IPI* by 0.249% and 0.068% respectively. On the other hand, in the long run, the association between *SCS* in the model and economic growth is negatively significant at 5% significance level, where an increase in 1% of *Shari'ah* compliant securities decreases the real economic growth by - 0.619%. Meanwhile for

SCMC, the association between *SCMC* in the model and economic growth is positively significant at 1% significance level, where an increase in 1% of *Shari'ah* compliant market capitalization and increases the real economic growth by 0.173%.

In the presence of IFSA 2013, for the period of pre-IFSA, which is between 2007 – 2013, the short-run results show that the associations between both *SCS* and *SCMC* in the models, and short-run real economic growth are positively significant at 10% and 1% significance level respectively, where a 1% increase in the variable will increase the *IPI* by 0.93% and 0.10% respectively. On the other hand, for the long-run results, it is shown that the associations between the *SCS* and long-run economic growth are positively insignificant, while for *SCMC* in the model, it is shown that the associations between the *Shari'ah*-compliant market capitalization and long-run economic growth are positively significant at 10% significance level, where a 1% increase in *SCMC* will increase the *IPI* by 0.29%.

For the period of post-IFSA, which is between 2014 – 2015, the short-run results show that the association between *SCS* and short-run real economic growth are positively significant at 1% significance level, where a 1% increase in *SCS* will increase the *IPI* by 1.79%. Meanwhile the link between *SCMC* and short-run real economic growth is negatively insignificant. On the other hand, the long-run results show that the association between *SCS* and long-run real economic growth are positively significant at 1% significant level, where a 1% increase in *SCS* will increase the *IPI* by 1.39%. Meanwhile, the association between *SCMC* and long-run real economic growth is found to be negatively insignificant. The results depict that the *SCS*-growth nexus is enhanced by IFSA 2013 but that there is no evidence that IFSA 2013 could support the *SCMC*-growth nexus both in the short run and long run. This is due to the fact that IFSA is only introduced in the beginning of June 2013 and the grace period for compliance to IFSA is accorded. Effective compliance to IFSA only starts on February 2014. Hence, it is rather limited from data perspective, especially for the analysis that is related to post IFSA period. Moreover, ICM is not directly regulated by IFSA 2013 but instead is regulated by CMSA 2007. For Takaful sector, the results show that there is a significant positive correlation between Takaful and real economic growth before the implementation of IFSA 2013 at 1% significance level. However, after the

implementation of IFSA 2013, Takaful and real economic growth portray a positive correlation but insignificant. The findings depict that there is no evidence that IFSA 2013 could support the Takaful-growth nexus as it is rather limited from data perspective. From the results, it can be concluded that the models that utilise the ARDL technique explain the findings better as compared to the models that utilise the Pearson Correlation Coefficient technique, as they cover a more comprehensive analysis that includes the short- and long-run studies, and also the diagnostic tests.

Table 5.34 Summary of the Output (Quantitative Results)

Sectors	Indicators	In the Absence of IFSA 2013	In the Presence of IFSA 2013	
			Pre-IFSA 2013	Post-IFSA 2013
Islamic Banking	IBD	Positively significant at 5% (Short-run) (0.019)** Positively significant at 5% (Long-run) (0.049%)**	Positively significant at 10% (Short-run) (0.49)* Negatively insignificant (Long-run) (-0.004)	Positively significant at 10% (Short-run) (0.000001)* Positively significant at 1% (Long-run) (0.0000005)***
	IA	Positively significant at 5% (Short-run) (0.019)** Positively insignificant (Long-run) (0.055)	Negatively insignificant (Short-run) (-0.11) Negatively significant at 5% (Long-run) (-0.15)**	Positively insignificant (Short-run) (0.18) Positively significant at 1% (Long-run) (0.13)***
	IBF	Positively significant at 5% (Short-run) (0.015)** Positively significant at 5% (Long-run) (0.039)**	Positively significant at 5% (Short-run) (1.40)** Negatively insignificant (Long-run) (-0.02)	Positively significant at 1% (Short-run) (0.36)*** Positively significant at 1% (Long-run) (0.30)***
	IBA	Positively significant at 5% (Short-run) (0.018)** Positively significant at 5% (Long-run) (0.048)**	Positively significant at 5% (Short-run) (0.76)** Negatively insignificant (Long-run) (-0.005)	Positively insignificant (Short-run) (0.12) Positively significant at 1% (Long-run) (0.29)***
	SCS	Positively significant at 5% (Short-run)	Positively significant at 10% (Short-run)	Positively significant at 1% (Short-run)

Islamic Capital Market		(0.249)** Negatively significant at 5% (Long-run) (-0.619)**	(0.93)* Positively insignificant (Long-run) (3.4)	(1.79)*** Positively significant at 1% (Long-run) (1.39)***
	SCMC	Positively significant at 1% (Short-run) (0.068)*** Positively significant at 1% (Long-run) (0.173)***	Positively significant at 1% (Short-run) (0.10)*** Positively significant at 10% (Long-run) (0.29)*	Negatively insignificant (Short-run) (-0.19) Negatively insignificant (Long-run) (-0.68)
Takaful	AGT	0.885***	0.128	
	AFT		0.215	

Notes: (***) is significant at 1%, (**) is significant at 5%, and (*) is significant at 10%.

5.4 QUALITATIVE ANALYSIS

To answer the third research objective of the study, which is to view the IF-growth nexus from the perspective of Islamic economic, two methods are adopted; 1) Between-Study Literature Analysis, and 2) Interview Session with Both Practitioners and Academicians.

5.4.1 Between-Study Literature Analysis

5.4.1.1 The Definition of *Maqasid Shari'ah*

Islam takes a comprehensive strategic approach to human progress, emphasising the importance of achieving the goals of Islamic law, *Maqasid Shari'ah*. In terms of the Islamic perspective on socioeconomics, *Maqasid al-Shari'ah* is the pillar and foundation of socioeconomics, while its progress and issues are the expressions of the pillar. As a result, Islam has acknowledged the need of “purpose” or “*maqsud*” as a guidance. *Maqasid al-Shari'ah*, according to a prominent scholar, Imam Abu Hamid al-Ghazali, focuses on human well-being, which consists of protecting the five primary

areas of religion (*din*), intellect (*aql*), human-self (*nafs*), wealth (*mal*), and posterity (*nasl*) as illustrated in Figure 5.3. Chapra (2008) states that it is a must to protect the five fundamental dimensions to serve the society, and it is prohibited to harm these five dimensions as it can cause chaos in the society. According to Kamali (2009), the protection's levels from the Islamic perspective can be classified into three categories, namely necessities (*daruriyat*), requirements (*hajiyyat*), and embellishments (*tahsiniyat*), as illustrated in Figure 5.2, where *daruriyat* is the most basic and the minimum level of needs that the human must fulfil.

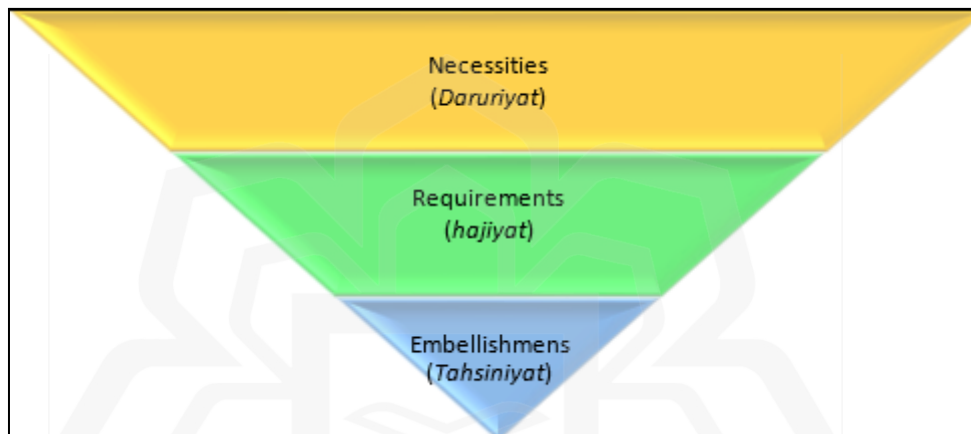


Figure 5.2 Protection's Levels from Islamic Perspective
Source: Kamali (2009)

One of the aims that must be realized at the *daruriyat* level is the ownership of life-sustaining services and products. Islam emphasizes that a person satisfies the *daruriyat* criteria in order to take on the obligation of a khalifah to protect religion, life, intellect, wealth, and posterity. The position of Islam is to satisfy the bare minimum of protection and development for the society on each of the five dimensions in order to facilitate the act of worshipping (*ibadah*), and provide the opportunity for the society to survive, live, and grow so that they can make learnt choices without being compelled (Omar, 2018).

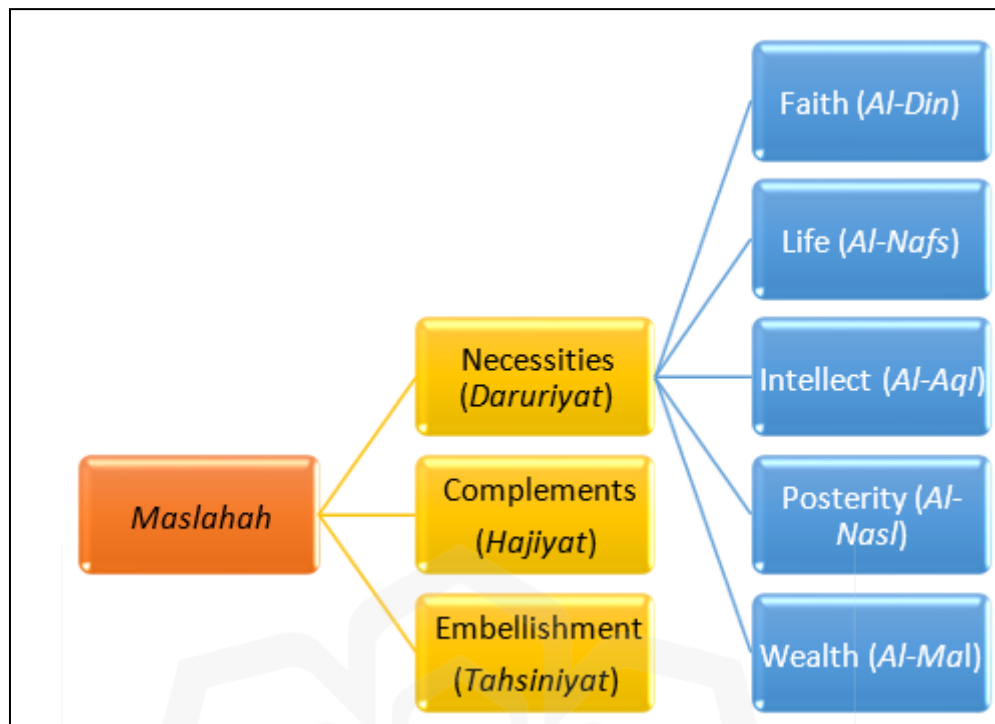


Figure 5.3 Al-Ghazali's Theoretical Framework of *Maqasid Shari'ah*
Source: Omar (2018)

According to Alias et al. (2018), *Maqasid Shari'ah* is employed in the determination of Islamic law based on *qiyas* as well as Islamic law that is based on *Maslahah Mursalah* and is acknowledged in the Syafie's school of thought. Based on Alias et al. (2021), the Arabic word "*maslahah*" has two meanings. The first meaning is virtue and advantage or interest, while the second meaning is the action of public interest. *Maslahah Mursalah*, he continued, is defined as *maslahah* that is in line with the higher goals of *Shari'ah* law and *maslahah* that is acknowledged by many legal writings that are derived from the divine revelation, but there is no particular legal text that accept or reject it. Even if there is no specific legal document to support it, academics agree that *maslahah*, which conforms to *Maqasid Shari'ah*, is permitted (Al-Zuhayli, 1986; Al-Shawkani, 1999). According to some scholars, the term "*Maslahah Mursalah*" refers to *maslahah* that is in accordance with *Maqasid Shari'ah*. As a result, people will accept it without question (Burkab, 2002).

According to the analysis carried out by Alias et al. (2021), *Maslahah Mursalah* is a *maslahah* that has no direct roots or backgrounds in *shari'ah* but is consistent with its goals and objectives, whereas *Maqasid Shari'ah* is the higher goals of *shari'ah* that

have been formulated from the part or whole of the Islamic legal rulings. *Maslahah Mursalah* must be accepted with reference to *Maqasid Shari'ah*. The rejection of *Maslahah Mursalah* by some Islamic scholars, particularly those from Shafie's school, refers to *Maslahah* that is only based on reasoning as opposed to *Maslahah* that is understood from the Islamic legal texts. As a result, recognising *Maqasid Shari'ah* as a means of establishing Islamic legal principles is not an issue. This study further investigates the contribution of IF towards the benefit (*maslahah*) of the society, which is the main objective of the *Maqasid Shari'ah* via interviewing the experts in the next section.

5.4.1.2 The Development of Maqasid Shari'ah Index in Islamic Finance

By studying Ibn Khaldun's theory of development, Chapra (2008) has emphasised the significance of *Shari'ah* implementation. He discovered that Ibn Khaldun's entire model is condensed to a significant extent, if not fully, in the following advices he offered to the sovereign, where he claimed that the strength of the sovereign (*al-mulk*) does not manifest except through the implementation of the *Shari'ah* as detailed in the following:

1. The only way the sovereign can achieve power is through the people (*al-rijal*).
2. The people cannot be supported except by the wealth (*al-mal*).
3. Wealth cannot be attained except through development (*al-imarah*).
4. Development cannot be obtained except through the implementation of justice (*al-adl*).
5. Justice is the main criterion (*al-mizan*) by which God will evaluate the mankind in the hereafter.
6. The sovereign is held responsible for realizing the justice.

According to Rosenthal (1967), the focus of Ibn Khaldun's theory of development analysis is the human being because the fall and rise of a civilization is strictly dependent on the misery or well-being of the people, which leads to the dependent not just on economic factors but also on the closely interrelated role of institutional, moral,

political, psychological, demographic, and social factors through a process of circular causation, which extends over a long period of history. To actualizing justice and protect the people, the establishment of a *Maqasid al-Shariah*- based socioeconomic development index that incorporates the five *Maqasid al-Shariah* dimensions has lately received a lot of attention. Amir- Ud-Din (2014), Mili (2014), Amin et al., (2015), Kasri & Ahmed (2015), Ghazal & Zulkhibri (2016), Nizam & Larbani (2016), and Bedoui (2019) are only a few examples of research that expressly focus on the index's construction. Several variables, including the removal of poverty, job opportunities, optimum development rate, investment and savings, education, good governance, equitable distribution of wealth, and security of life, are recommended as part of the indicators to assess the preservation of wealth, according to Chapra (2008), which is amongst the earliest scholars in this area. Anto (2011) who has established the Islamic Human Development Index (I-HDI), later proposes a more thorough assessment, the Property Index, to assess a society's wealth position. Economic growth, GDP per capita, Gini ratio, GDP per capita growth, and poverty rate are the proposed factors in the index. Due to many imitations of conventional products, Islamic finance need to well-consider the measures and policy initiatives to enhance the ethical dimensions of their products and operations to achieve the overall objectives of *Maqasid Shari'ah* (Kamali, 2011).

Anto (2011) proposes a list of factors that might be used to help determine which variables or indicators to employ. However, his study's index has been questioned since it contains the GDP component, which includes the output of items that are prohibited by Islam, such as the manufacturing of tobacco and alcohol, interest-based finance, pornography, and nuclear weapons. In addition, Mili (2014) and Ghazal & Zulkhibri (2016) utilizes the international property rights index as part of the indicators under the wealth preservation, while Amir-Ud-Din (2014) proposes three indicators based on the three level of necessities; 1) Poverty line below \$1.25 (*daruriyat*), 2) \$2 poverty line (*hajiyyat*), and 3) Property security (*tahsiniyat*). Domestically, several indicators of wealth preservation such as savings and investments, employment type, and house ownership has been proposed by Abdul Rasool & Salleh (2014). Furthermore, a study from Alziyadat and Ahmed (2019) propose that higher productions that are contributing to the economic development as a necessity (*daruriyat*), while shareholders' profitability as a requirement or complement (*hajiyyat*). They add that IFIs are being

criticized for neglecting the ethical aspects of the *Shari'ah*, while focusing on the legal compliance, and implementing a framework that can be used by IFIs to implement the ethical decisions in their operations, will, however, solely depend on the whether there is a will at the highest levels of the organization.

From the theory to the methods applied, there is a rising interest in examining economic growth from an Islamic viewpoint. Many indicators or factors are offered in the Islamic financial system to match with the *Maqasid Shari'ah*, according to Zailania et al. (2022), including the obligation to conserve wealth. Many of the recommended indicators, however, might be questioned for a variety of reasons. Firstly, several indicators proposed are derived from the western thinking of economic development although the concept of economic development must be reflected from the Islamic point of view. For example, the measurement of GDP may consist of the economic activities or businesses that are partly against the Islamic principles such as the involvement in interest (*riba*) transaction in investment and financing medium. Moreover, indicators like investments and savings may involve *riba* transaction, as they do not consider whether the capital is invested in a non-*Shari'ah* investment product or scheme. Any rise in wealth must not come at the price of religious responsibilities, according to the Islamic stance. There is a need to construct metrics that can indicate a society's socioeconomic growth on a micro level. Furthermore, the recommended indicators should provide value to the policy's design and implementation. In order for an economic development index to be useful, it must include indicators or variables that can influence policy decisions. Table 5.35 below shows indicators for economic development that are proposed by Zailania et al. (2022), which covers many areas such as savings, investment, *waqf*, *zakat*, IB, employment, and national income.

Table 5.35 Indicators Proposed for the Wealth Protection (*Hifz al-Mal*) index.

Macro	Micro
• No of <i>Sukuk</i> issuances and Shariah-compliant stock • GDP per capita (purified) • Collection and distribution of <i>Waqf</i> fund • Collection and distribution of <i>Zakat</i> fund • Islamic Banks' Total Assets as a Percentage of All Banks' Total Assets • Rate of employment under <i>halal</i> job	• Investing/savings in a shariah-compliant programme • Household income that is derived from halal sources. • <i>Waqf</i> assistance' access • <i>Zakat</i> assistance' access • Amount of money borrowed or lent by a household in <i>riba</i> transactions. • <i>Halal</i> job's easy access

Source: Zailania et al. (2022)

In Islamic banking sector, Mohammed and Taib (2015) developed the Islamic banking performance measures based on Abu Zaharah (1997)'s theory of *Maqasid Shari'ah*, which encompasses educating the individual, promotion of public interest and establishing justice as suggested by Rusydiana and Al Parisi (2016), Hudaefi and Badeges (2022), and Kartika et al. (2022). Performance measures based on *Maqasid Shari'ah framework* (PMMS) model consists of ten ratios, which include:

1. Education grant/total expenses
2. Research expenses/total expenses.
3. Training expenses/total expenses
4. Publicity expenses/total expenses
5. Profit equalization reserves/net or investment income.
6. *Mudarabah* and *Musharakah* modes/total investment modes
7. Interest free income/total income
8. Net income/total assets
9. *Zakat* paid/net assets.
10. Investment in real economic sector/total investment

It is shown that Islamic banks' performance is very good when measured using the PMMS model, which shows that Islamic banks perform successfully (Mohammed and Taib, 2015). Their findings are supported by Rusydiana and Al Parisi (2016) and

Alhammadi et al. (2022). Furthermore, Prasajo (2022) and Kartika et al. (2022) discovered that larger intellectual capital efficiency, board sizes and *Shari'ah* governance improve Islamic bank performance based on *Maqasid Shari'ah*, together with good Islamic social reporting and corporate governance. Meanwhile, Afif et al. (2023) found that job satisfaction, leadership style, and work environment in accordance with Islamic concepts of *Maqasid Shari'ah* can boom worker and increase the overall Islamic banks' performance. Moreover, recent study by Ascarya and Masrifah (2023) discovered that the *Maqasid Shari'ah*'s priority order and weight are faith protection (0.32), intellect protection (0.219), life protection (0.204), wealth protection (0.171) and lineage protection (0.104). On the other hand, the main activities' priority order and weights are education (0.190), economy of the society (0.167), service for Hajj (0.155), Da'wah (0.124), health care (0.118), social-religious activities (0.097), worshipping facilities (0.085) and disaster emergency responses (0.065). To add to the literature, this study investigates the current practices of Malaysian Islamic financial system in the perspective of Islamic economics, by focusing on the impact of IFSA 2013, which is yet to be done by the previous researchers via interviewing the experts in the next section.

5.4.1.3 The Idealism Versus the Realism in Islamic Finance

Islamic banks create and provide financial goods using contract structures that adhere to *Shari'ah* principles. In addition to being *Shari'ah* compatible, early thinkers envisioned Islamic banks to contribute to the attainment of fair income distribution, improving social mobility, establishing widespread financial inclusion, and fostering need satisfaction. The pressures of the sector, however, make it difficult to prioritise to fulfil these objectives. The gap between realists and idealists has been widened as a result (Rahman, 2007). He explained that the realists are those who practice Islamic banking on the ground and must compete with conventional banking under the same laws, regulations, and market conditions. Therefore, even though the products are *Shari'ah* compliant, but they are designed to compete with the mainstream conventional banking industry, in which they are forced to pursue an evolutionary assimilation of Islamic banking to infiltrate from scratch into the mainstream and dominant conventional banking system. Imon (2018) defined this group as mainstreamist, in

which they are predominantly practitioners who prefer to emulate mainstream practices within the Islamic financial system framework. On the other hand, the idealists desire a more revolutionary incorporation of Islamic banking to leave a distinctive mark on the financial system. Imon (2018) defined them as the structuralist, who are concerned about a deviation from conventional norms, and they are predominantly academicians, who often describes IF development as being at a critical juncture where the emulate-innovate debate must be settled.

Asutay (2008) came to the conclusion that Islamic banking does not satisfy the necessary requirements of the (*Maqasid*) higher purpose of *Shari'ah*. According to Laldin and Furqani (2013), ensuring that product structures comply with the minimum *Shari'ah* legal requirements is insufficient to move towards the distribution of wealth, transparency, and fairness. The Islamic finance industry is still largely disconnected from the real economy and, consequently, from the prosperity of society, as is frequently highlighted in modern discourse on Islamic finance (Ibrahim et al., 2014). Dusuki and Abozaid (2007) contended that Islamic banks are merely an exercise in semantics due to the overemphasis on form over substance. Other than using euphemisms to conceal interest and get around numerous *Shari'ah* prohibitions, they perform the same functions as conventional banks. According to Balz (2008), the Islamic financial sector is stuck in a “formalist deadlock” where formal adherence to Islamic law is more important than advancing Islamic ethical principles, for instance, when the products are being utilised against their intended purposes, they are involved in liability-side activities. According to Dusuki and Abozaid (2007), Islamic banks’ provision of equity-based financing will better advance the Islamic socio-economic goals, such as social justice, economic growth, efficiency, and stability. This is consistent with the opinions of Islamic economists from an earlier generation, which include Umar Chapra, Nejatullah Siddiqui, and others. Al-Harran (1990), Haron (1996), and Yousef (2004) further supported this view.

Islamic economists that adhere to egalitarian philosophy, such as Siddiqi (2014), contended that loans should play a far smaller role in the society and should be replaced by participatory forms of financing. However, Kayed (2012) exposed that the profit and loss sharing (PLS) model has been marginalised in several Muslim nations. The lending

portfolio of Islamic banks is strongly skewed towards short-term trade finance, according to Hassan and Bashir (2003). Islamic economists like Siddiqui (2007) believed that unless Islamic banking gradually moves away from debt-based financing, it cannot claim to be a meaningful alternative to the conventional banking system. They have high expectations for Islamic banks beyond simply serving as financial brokers like the conventional banks. Similarly, Yusof et al. (2009) stated that in order to address the current financial crisis that many nations are currently experiencing due to a lack of financial discipline and reckless risk-taking, Islamic banks must avoid debt-based financing as it can plunge economies into a serious crisis and a stronger implementation of equity-based financing to meet the *Maqasid Shari'ah* goals must be urged. Shaikh et al. (2017) also contended that to reduce financial exclusion, it is recommended that Islamic financial institutions use equity-based financing modes to reduce financial exclusion, but most banks prefer debt-based financing compared to the equity-based financing because of the high risk that need to be taken by the equity-based financing.

Khair (2013), in defence, argued that mainstream Muslim scholars who support the view of realism opined that Islam recognized the legitimacy of Islamic financial transactions that involve time value of money such as bilateral rebate and deferred sale. Khan (2014) believed that those who criticise the practice of Islamic banking do not understand the value that debt financing adds to an economy, particularly when it comes to inclusive growth and development of the economy through facilitating access to financial services for the purchase of assets. Chapra (2007) contended that asset-backed financing prevents debt from rising above the rate of real economic growth, even if debt-based financing is a common strategy in Islamic banking. He contended that the implementation of such a discipline would increase the financial system's stability, efficiency, and equity. Other opponents of Islamic banking reject the idea that the current institutional framework and paradigm can actually and meaningfully alter how banks operate. Without grasping the epistemic significance of this principle, Choudhury (2012) asserted categorically that Islamic banking is a mainstream industry that benefits wealthy shareholders by avoiding financial interests. Haniffa and Hudaib (2010) contended that the *Maqasid Shari'ah* have been improperly invoked to support the development of financial products that compete with and resemble of conventional banking. El-Gamal (2005), a fervent opponent of Islamic finance in practice, claimed

that the current Islamic finance that is being practiced is a prohibition-driven industry that seeks to offer Muslims permissible equivalents of conventional financial services and products that are typically viewed as unlawful in Islamic law. In a different study, El-Gamal (2007) argued that rent-seeking *Shari'ah* arbitrageurs, who continue to work on combining the current financial products and services from traditional nominate contracts without taking into account the corporate structure of the financial institutions, have driven the growth of Islamic finance over the past three decades.

Pramono and Suzuki (2020) further mentioned that the gap between “idealists” and “realists” need to be bridged by seeking a consensus to give priority to the realist view on the “wealth creation first” strategy in the programme of Islamic banking development. There is an ongoing drift between the idealist and realist groups but despite the lack of consensus on the realistic and idealistic schools of thought on the strategic direction in positioning the Islamic banking in the industry, Shaikh et al. (2017) argued that it is extremely important to deal with financial exclusion in Muslim majority countries as well as to the societal contribution in general. Hence, this study investigates the drift between the idealist and realist or the structuralist and mainstreamist by looking at the context of academicians and practitioners, which is believed to face the same issues. It also examines whether Islamic finance in Malaysia is moving towards equity- or debt-based financing, to see whether Malaysia is inclined to the idealist or realist view via interviewing the experts as illustrated in the next section.

5.4.2 Interview

The in-depth interview is conducted to collect various answers and perspectives from the experts. The discussion is divided into four themes: 1) Islamic Finance-Growth Nexus from the Perspective of Islamic Economics, 2) Islamic Banking-Growth Nexus, 3) Islamic Capital Market-Growth Nexus, and 4) Takaful-Growth Nexus.

5.4.2.1 Information on the Islamic Finance-Growth Nexus from the Perspective of Islamic Economics

The first part of the interview questions explores the Islamic economics' view on the Islamic Finance-growth nexus in Malaysia. The basic concept of economic development, which is proxied by the metrics like GDP/ real GDP, or GDP/ real GDP per capita is questioned on whether or not it reflects the real economic progress in a country. There are 10 questions for this part; 1) What does economic growth or progress mean from the Islamic perspective? 2) Are there any alternative or additional metrics that you could suggest to measure the performance of an economy based on Islamic values? 3) To what extent do you think IF satisfies the *Maqasid* al-Shari'ah and fulfills Islamic economic goals? 4) Do you think IF has successfully developed in accordance with Islamic economic values? 5) How do you think IFSA 2013 impacts economic growth in the short and long run? 6) Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? 7) Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by BNM, has impacted the IF-growth nexus in a meaningful way? 8) There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes? 9) Could VBI have been implemented in a better way by BNM? 10) Do you think that the general public understand Islamic economics as well as they understand IF? 11) What is the impact of Covid-19 on the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?

Due to the issues of understanding economic growth from the Islamic perspective, seven experts in the industry, which include CEO of IILM, Managing Director of Elzar Shariah Solution Sdn. Bhd., Head of *Shari'ah* Department of HSBC Amanah Malaysia, Partner of Raja, Darryl & Loh, Head of Corporate Planning & Strategy and Assistant Vice President of Etiqa Takaful, and Business Development Director of Great Eastern Takaful Berhad give their opinions and explanations on the definition of economic growth from the Islamic perspective, where it is defined as an economy that provides equal opportunities, encourages fair distribution of resources, and takes care of the societal wellbeing that is based on the religious worldview. Therefore, the current metrics that are used to measure economic growth is not enough

as they do not reflect a fair distribution of wealth amongst the society. There are several additional metrics / alternatives that are suggested by the experts, which include consumer price index (CPI), *Zakat*, *Waqf*, human development index (HDI), and poverty metrics. Furthermore, the experts also believe that the current Islamic financial system in Malaysia has progressed further in satisfying the *Maqasid al-Shari'ah*. As the experts have the similar opinions on the positive role of IF towards the *Maqasid al-Shari'ah*, they believe that the current IF in Malaysia has done well in implementing Islamic economic values in its practices. Besides, they also believe that IFSA 2013 has brought the IF industry closer to Islamic values and will impact the economic growth in a positive way. In addition, to further progress in this industry, all experts believe that both practitioners and academicians should have a mutual understanding to further reduce the tension that exists between them, so that more significant contributions can be made to the industry. They also suggest that the value-based intermediation (VBI) has impacted the IF-growth nexus in Malaysia in a positive and meaningful way, but it is still open for improvements to better achieve the *Maqasid Shari'ah* as it is still in a very early stage. To ensure a smooth and stable change to the financial institutions during the implementation of IFSA 2013, several strategies have been adopted but the general public is still having a lack of understanding in Islamic economics as well as IF as a whole. In addition, five of the experts have also shared their opinions on the impact of Covid-19 on the IFIs and economy, where they agree that Covid-19 has a big impact on the IFIs as they are exposed to the market volatility. However, there are additional measures and resolutions announced by the IFIs to solve the issues. Moratorium, *ta'widh*, *mysalam*, microtakaful products, rebates, subsidies, and healthcare funds are some of the measures taken by the IFIs to help the economy bounces back from the crisis. The outputs of the interviews under this theme (IF-Growth Nexus from the Perspective of Islamic Economics) are outlined in Table 5.36.

Table 5.36 Output of Interviewees on IF-Growth Nexus from the Perspective of Islamic Economics

Questions	Description
1. What does economic growth or progress mean from the Islamic perspective?	Due to the issues of understanding economic growth from the Islamic perspective, the experts in the industry give their opinions and explanations on the definition of economic growth from the Islamic perspective. “From the Islamic perspective, economic growth or progress is when the economy provides equal opportunities to all citizens to lawfully acquire,

Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy? 2.	manage and dispose of wealth while preserving the overarching higher objective of <i>hifz al-mal</i> (protection of wealth). This promotes equal access to wealth and encourages fair distribution of resources. In my view, while GDP/real GDP and other conventional metrics could be relevant in measuring economic growth from the Islamic perspective, there should be more to the analysis. To show the overall health of the economy and progress recorded so far, it is pertinent to consider both the societal and individualized metrics. The role of the government is to provide such opportunities while it is left for individuals to maximize such.” (CEO, IILM) “From Islamic perspective, economic growth or progress means that the wellbeing of the society is being taken care of. Therefore, the ways to measure economic growth in Islamic economy is flexible as long as it takes care of the society’s wellbeing. While the metrics like GDP, real GDP, real GDP per capita, and industrial production index are not wrong to be used to reflect the economic growth, Islamic economy should put Zakat as the benchmark as it takes care of the eligible recipients, and also Waqf (the ancient way of living during Prophet Muhammad era). For non-Muslim, it should be referred to other taxes like Jizyah and so on. Besides, new things/proposals can always be presented to the authority to be discussed and executed as practiced by the Sahabah.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “Economic progress from the Islamic perspective does not focus uni-dimensionally on production growth, rather it is also about protection and preservation of wealth and resources in the country and ensuring the benefits are well-distributed amongst the society, as wealth should not be concentrated in the hands of the few. GDP growth is not a sufficient measure for economic progress as it does not reflect the wealth distribution and protection of resources. For instance, a high GDP does not indicate that wealth is distributed fairly amongst the society and that that quality of life is improved. GDP is only measuring the country’s production, not wealth distribution. (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “To us, economic growth in the context of IF is more than financial metrics. The social aspects of things must be also examined. For example, social welfare and how Islamic products are being used in everyday economy.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa) “Islamic economics never got entangled in a secular and materialist worldview. It is based on a religious worldview, which strikes at the roots of secularism and value neutrality. It recognizes the role of the market in the efficient resources allocation but does not find competition to be sufficient to safeguard social interest. It tries to promote human brotherhood, socio-economic justice, and the wellbeing of all through an integrated role of moral values, market mechanism, families, society, and ‘good governance’.” (Business Development Director, Great Eastern Takaful Berhad)
3. Are there any alternative or additional metrics that you could suggest to measure the performance of an economy based on Islamic values? If yes, kindly identify	There are several additional metrics / alternatives that are suggested by the experts as they all agree that the current metrics used to measure economic growth do not reflect the real progress. “There is a need to triangulate the existing notable metrics of economic growth such as consumer price index (CPI) with such other metrics that measure people’s access to economic resources and opportunities, as they are more realistic than real GDP. Real GDP can measure the value of goods and services produced by an economy but in a globalized world, such goods and services may be imported without any benefit to the home country. Therefore, there should be some metrics that would measure the economic opportunities provided by the government to the people in a specified period.” (CEO, IILM)

it/them with a brief description.	“Zakat and Waqf are good metrics to measure the performance of an economy based on Islamic values.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “The main framework of Islamic economy is to achieve <i>Maqasid Shari’ah</i>. For this, a better indicator for economic progress can be Human Development Index (HDI), and Gini coefficient.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “Perhaps can take a look at addressing social finance i.e. poverty metrics.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa) “Metrics that promotes socio-economic justice are better to be used.” (Business Development Director, Great Eastern Takaful Berhad)
4. To what extent do you think IF satisfies the <i>Maqasid</i> al-Shari’ah and fulfills Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit-maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society?	It is believed that the current IF in Malaysia has progressed further in satisfying the <i>Maqasid</i> al-Shari’ah. “IF generally satisfies <i>Maqasid</i> al-Shariah. The Islamic economic goals fulfil the <i>Maqasid</i> al-Shariah with particular reference to <i>hifz al-mal</i> (preservation of wealth). IF cannot blindly adopt profit maximization objective without ensuring it infuses the element of value-based intermediation. The term often used is “principles before profit”. IF can target profits but not at the expense of core Islamic economic principles. As a matter of fact, profit maximization should never be the objective of IF, rather profit making should be prioritized within the purview of overarching principles established in Islamic law. The unique economic mandate of IF should be to promote financial inclusion and provide Shariah-compliant alternative to the domineering attitude of conventional finance through sustainable and consumer-friendly alternatives. If the IF-growth nexus is positive, then the society will benefit more. As seen in some jurisdictions, even non-Muslims prefer to opt for IF products and services, as they feel such products are more sustainable and risks associated with such financing are effectively shared rather than fully transferred to the customers” (CEO, IILM) “IF involves two different business entities; 1) Private institutions such as Islamic banks and Takaful companies, 2) Government agency such as Federal Land Development Authority (FELDA), Majlis Amanah Rakyat (MARA), Perbadanan Usahawan Nasional Berhad (PUNB), Malaysian Global Innovation and Creativity Centre (MAGIC), Unit Peneraju Agenda Bumiputera (TERAJU) and Tabung Ekonomi Kumpulan Usaha Niaga (TEKUN) Nasional, in which Islamic financing are disbursed. For the private institutions, they achieve profit maximization in a right way (profit-optimization) as a nature of business to serve shareholders, and it is not haram Islamically. Meanwhile, the government agencies are striving to serve the public/society, in which directly fulfill the <i>Maqasid Shari’ah</i>. So far, IF does affect the society positively through these channels.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “The basic role of the financial services industry is to collect the savings of the community and then direct that capital towards boosting the expansion of feasible businesses as well as expansion of purchasing power of consumers. What is needed for the industry is an ethical and moral framework for prioritizing such allocation of capital – and Islamic economics provides that in the form of <i>Maqasid</i> al-Shari’ah. For instance, IF allows for the protection of religion as it permits people to do business and trade in a <i>Shari’ah</i>-compliant manner, thus protection them from sinning. IF also leads to the protection of life as it practices Ihsan in dealing with people, and it also

	prohibits Gharar, Riba, and gambling. For instance, Islamic banks offer a restructuring of repayment to the people who have financial issues, especially during Covid-19, where they got a free extension of repayment without a compounding interest, which then reduce the anxiety and suicidal issues amongst the society on the financial issues. Theoretically, IF should reduce inflation as well due to the control of money creation, which lead to the protection of wealth. However, it is acknowledged that GDP growth remains the main aim rather than a more comprehensive HDI driven economic objective.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “In IB, the rulings for trade contracts are fiqh-compliant. Fiqh is an understanding of <i>Shari’ah</i>, where it can be changeable to achieve the <i>Shari’ah</i>, rules by Allah on the other hand, are fix. We cannot fully confirm the scope of <i>Shari’ah</i> as we can only strive our best to understand <i>Shari’ah</i>. IF so far does strive to achieve <i>Shari’ah</i> through the protection of 5 necessities in the <i>Maqasid Shari’ah</i>, which are religion, intellect, life, wealth, and lineage.” (Partner, Raja, Darryl & Loh) “When talking about <i>Maqasid</i> Shariah, it encompasses all aspects of life. This is where the difference lies with conventional. 1 example is protection of life. This can be associated with takaful. If everyone takes takaful, wealth creation is created through the benefits of takaful (monetary) to the beneficiaries. This in return will help elevate their social status and help eradicate poverty. This is the economic mandate that IF needs to achieve.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)
5. It is argued that Islamic economics is being developed according to Islamic values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?	As the experts have the similar opinions on the positive role of IF towards the <i>Maqasid</i> al-Shari’ah, they believe that the current IF in Malaysia has done well in implementing Islamic economic values in its practices. “The development of IF is still work in progress, but significant strides have been recorded in the past five decades. To a large extent, I would agree that IF has successfully developed in accordance with Islamic economic values but there is always room for improvement. IF should always seek to implement the original value proposition of Islamic economics where it does not only provide products and services for financial intermediary but also ensure it institutionalize core principles of Islamic social finance to bridge the gap between the rich and the poor and ensure people have equal access to economic resources.” (CEO, IILM) “IF currently has progressed further to successfully develop in accordance with Islamic economic values.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “IF in general is based on capitalism, with very strong social protection values. For instance, VBI, sustainable finance, and socially responsible investing (SRI) are some of the efforts in Malaysia to formalize Islamic values into regulation.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “From Takaful point of view, yes. Concept of tabbaru’ (donations) is part of the Islamic values.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)
6. How do you think IFSA 2013 impacts economic growth in the short and long	All the experts believe that IFSA 2013 has brought the IF industry closer to Islamic values and will impact the economic growth in a positive way. “In my opinion, IFSA 2013 as a comprehensive legislation has engendered economic growth in Malaysia. It has brought the IF industry closer to Islamic values, particularly with its Shariah governance provisions which have further

run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions.	streamlined the provisions of the Central Bank of Malaysia Act 2009, provisions on consumer protection and dispute resolution. Perhaps, the most important aspect that impacts economic growth is the introduction of the investment account which has led to the Investment Account Platform (IAP). The IAP has supported economic growth through the support of many SMEs in Malaysia.” (CEO, IILM) “IFSA 2013 has brought the IF industry closer to Islamic values, as IFSA 2013 covers more areas than IB Act 1983. It is a good Act, which gives a little more seriousness towards Islamic values, for instance, <i>Shari’ah</i> scholars have become more authoritative, and Central bank can amend/update policies that are more <i>Shari’ah</i>-compliant. For these reasons, IFSA 2013 is good for economic growth.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “IFSA 2013 is definitely not pushing IF industry further away from Islamic values, as it ensures stability, which is good for economic growth. It also enables investment account as an additional approach to deposit accounts – although this product has not really taken off as expected.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “IFSA 2013 is just a law. IFSA alone is not sufficient, and it needs to depend on other things too like SAC rulings, Shariah Standards etc. IFSA 2013 does gives opportunity for growth as it provides a good platform to further develop products under equity (risk-sharing).” (Partner, Raja, Darryl & Loh) “From a takaful point of view, changes made in the IFSA have helped spur the growth on takaful of Malaysia. Industry has grown 10-13% Annual. Changes on nomination process and requirements have made it easy for people to distribute wealth more efficiently thus generating more economic impact.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)
7. Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions?	All experts believe that both practitioners and academicians should have a mutual understanding to reduce such tension. “As an academic and a practitioner, I do not see any tension; what is required is mutual understanding. While the academics often idealize in their ivory tower, the practitioners are faced with the reality of executing deals which sometimes may not conform to the original ideals of IF; hence, may need to be modified. If there is a perceived tension between practitioners and academics, what needs to be done is to create a think-tank comprising both groups to serve as an advisory group to the regulatory and supervisory authority in the country. Through deliberations at the think-tank, the two groups will understand themselves better.” (CEO, IILM) “The differences in opinions are inevitable in all areas. For instance, in Islamic teachings, there are 4 mazhabs (Mazhab Hanafi, Mazhab Maliki, Mazhab Syafi’e, and Mazhab Hanbali) because of the differences in opinions. Another example is in the medical department, where medical professionals are having differences in opinions on vaccine application during COVID-19. In IBF, there are several reasons why there is a tension between practitioners and academicians. First, academicians are too dependable on what is written but in fact, there are so many data that are unpublished by the industry, resulting in ignorance amongst the academicians as they do not know in details about the products. Besides that, they are too realistic compared to the practitioners, who are more flexible as they know that what is more important is practicality. To reduce the tensions, academicians need to be trained and be well-informed on the products that are available in the industry. Meanwhile, the practitioners

	have to become more business-friendly.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “Definitely there is a tension between the practitioners and the academicians. In the first generation, the divergence was very high because the practitioners of IF came from a fully-conventional finance’s background, and their ideas were conflicting with the ideas of the academicians which was very idealistic. In the second generation, the tensions started to reduce because the practitioners are not so strongly influenced by conventional background, rather some of them come from fully IF education background, while the academicians also included those practicing in the industry. Hopefully, in the third generation, the tension will be further reduced.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “There is some tension between academicians and practitioners. Academicians write based on theories, and in order for them to have a better understand in industry’s practices, they must involve actively in the industry too. Meanwhile, the practitioners have to also understand the academicians’ theoretical view of IF and actively engage with academicians to see how far or close are the theories from the practice.” (Partner, Raja, Darryl & Loh) “We believe tensions have been gradually reducing. There have been content engagements from academicians and practitioners/ Takaful companies to discuss on IF as a whole. It is worthwhile to appoint academicians to become Independent Directors or Shariah Advisors of Islamic financial institutions so that they can learn and also share their views. The International Council of IF Educators (ICEFE) has also embark on a knowledge sharing journey with practitioners to understand further how IF is practiced.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqua)
8. Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by BNM, has impacted the IF-growth nexus in a meaningful way? Why or why not?	All experts agree that VBI has impacted the IF-growth nexus in Malaysia in a positive and meaningful way. “The VBI initiatives have the potentials of positively impacting the IF-growth nexus. However, it is pertinent to point out that the VBI initiatives are growth-focused. The initiatives are more focused toward realizing the full potentials of IF which is beyond just economic growth. They contribute to the element of self-discipline on the part of Islamic banks. While considering the four underpinning thrusts of VBI – entrepreneurial mindset, community empowerment, good self-governance, and best conduct, the most important thrusts for that would directly impact the IF-growth are entrepreneurial mindset and community empowerment while the remaining two could potentially provide some ancillary support to the IF-growth nexus. One could therefore say that since BNM issued the “Value-based Intermediation Financing and Investment Impact Assessment Framework – Guidance Document (VBIAF), was issued on 1 November 2019, which is pretty recent, it may be difficult to provide a fair assessment at this stage on the impact of the VBI initiatives on the IF-growth nexus.” (CEO, IILM) “VBI and IFSA both indicates the efforts to gradually change the IF to become much better than before, in line with the story of Prophet Muhammad, where he approves gradual changes by not drastically demolishing the idols around the Kaabah because of the people’s unreadiness. Similar to Khalifah Umar bin Abdul Aziz, who reminds his son that Allah also prohibit liquor in a gradual way. For these reasons, I would not suggest for any good deeds to be implemented in a radical way due to the fact that people will decline it in totality because they are not ready.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.)

	“VBI is meant to steer economic progress in the direction of achieving <i>Maqasid</i> al-Shariah. However, it is still in stage 1, where the bankers are still figuring out what to do, and it is currently progressing into stage 2, where the ideas are starting to be implemented. It is still a long way to go for VBI to really impact the economic progress significantly.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “VBI impacts the IF-growth nexus positively, and it can become a key performance indicator (KPI) for IF industry.” (Partner, Raja, Darryl & Loh) “The launch of VBI initiative in 2017 by BNM to the IB side shows that ESG has significant impact towards the financial industry. As such, led by the Malaysia Takaful Association (MTA), the VBI Takaful framework was launched last year that seeks to further ingrain sustainable business practices and values within the takaful businesses.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)
9. There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on?	To ensure a smooth and stable change to the financial institutions during the implementation of IFSA 2013, several strategies have been adopted. “Financial institutions had to comply with the regulatory prescriptions as contained in IFSA 2013. Some of the new regulatory measures were not to take effect immediately, as some were delayed allowing the financial institutions to adjust to the new law and regulatory environment. For instance, marketing approaches had to comply with the business conduct and consumer protection requirements of IFSA (as per Part IX of IFSA) which were based on best practices and not necessarily intended to create shocks in the market.” (CEO, IILM) “The transition period between 2013 and 2015 is important so that people are ready to it and are well-informed as mentioned before this that a drastic change will lead to the people’s avoidance towards the change.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “During the implementation of IFSA 2013, there is a migration of available products to new products, for instance, Bai’ Bithaman Ajil financing and Wadiah deposit to Tawarruq. One of the steps that the financial institutions did to cater this migration is sending standard notifications to the customers through text messages, and emails, so that they are updated and aware of the changes.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “Islamic financial institutions (IFIs) have to comply with the requirements that have been set to adapt with the changes.” (Partner, Raja, Darryl & Loh) “Etiqa established a working committee to discuss the impact and changes needed to adopt to IFSA 2013. We also engaged an external consultant to assist on preparing a report on the changes and execution needed.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)
10. Could VBI have been implemented in a better way by BNM? If yes, what would those improvements be?	Experts agree that VBI is open for improvements to better achieve the <i>Maqasid Shari’ah</i>. “It is still at the early stage to assess the extent of VBI implementation. While it is a great policy on paper, a proper assessment of its implementation will only be seen after few years (e.g. 5 years) of its implementation.” (CEO, IILM) “There are always new ideas and rooms for improvements for VBI, where it happens also during the time of Sahabah, where they always propose and

	present a new idea to improve the system.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “One of the improvements would be in terms of the consistency. During the development of VBI, there was a change of senior leadership in BNM and they made the decision to hand it over to Association of IB and Financial Institutions Malaysia (AIBIM), and since then, VBI is starting to picking up again. VBI could be implemented in a better way if only there is a consistency in the knowledge transfer despite the change in the leadership.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “The VBI initiative by BNM marks the next step to realising the full potential of IF. It came at the right time where Sustainability Agenda is becoming more apparent in Malaysia. The initiative promotes the application of VBI practices which will lead to an improved suite of products and services offered by Islamic Financial Institution - for better facilitation of entrepreneurship, community well-being, sustainable environment and economic growth, without compromising on shareholders’ returns. The intended outcomes of VBI are broadly similar to the objectives set by frameworks such as the Environmental, Social and Corporate Governance (ESG), Sustainable, Responsible, Impact Investing (SRI) and ethical finance. However, VBI is rooted in Shariah, which determines its underlying values, moral compass and priorities. With the adoption of VBI, practitioners will need to consider the impact of their activities and actions not only to financial consumers, but a wider range of stakeholders.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)
11. Do you think that the general public understand Islamic economics as well as they understand IF? How can IF be improved?	Experts believe that the general public is still having a lack of understanding in Islamic economics as well as IF. “Not really. There is a need for more financial literacy and education to be spearheaded by the regulator and the financial institutions. Other stakeholders could be the Islamic religious council through the well-coordinated Friday sermons as well as inclusion of such subjects in the school curriculum of students in secondary schools.” (CEO, IILM) “I can say that only 5% of the public understands Islamic economics, and unfortunately, there are also some movements (idealists) that condemned IF, and they make the general public more confuse.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “I think that the general public do understand the fundamental of Islamic economics like the prohibition of unfairness in terms of the wealth distribution, but they do have a lack of understanding in terms of the modern application.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “There is much awareness in IF compared to Islamic economics, especially in terms of <i>riba</i> prohibition, and yet, the fear towards <i>riba</i> is not as strong the fear towards other sins like consuming alcohol and pork. Perhaps the rename of “<i>faedah</i>” or “<i>bunga</i>” to be <i>Riba’</i> would take away any positive connotation to <i>Riba’</i>. (Partner, Raja, Darryl & Loh) “Don’t need to look far, we ourselves would think that IF and economics are the same. IF can be further improved by creating or showing more value and impact. Through this the <i>Maqasid</i> Shariah objectives can be achieved. Next is to be embrace technology. The gap in understanding IF can be reduced through the use of technology. However, products must be simple in nature and easy to understand

	Lastly, we need to look at using Waqaf, Donations and Zakat to lift the social wellbeing of the community.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)
12. What is the impact of Covid-19 on the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?	Experts agree that Covid-19 has impact the IF industries as they are exposed to the market volatility. However, there are additional measures and resolutions announced by the IFIs to solve the issues. Moratorium, ta’widh, mysalam, microtakaful products, rebates, subsidies, and healthcare funds are some of the measures taken by the IFIs to help the economy bounces back from the crisis. “There are 2 main point; 1) Islamic banks did not practice compounding when offering the 6-month payment moratorium during covid19, and 2) There were additional measures announced by various Islamic banks.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) “Covid 19 impacts the economy of the country which certainly affects IF industry as the IF industry is part of the country’s economic system. What was interesting in Malaysia was that the SAC issued a number of resolutions that provides the parameter for IFI to restructure and reschedule their products. This was helpful as it gave clarity on the matter particularly on the moratorium issue and the imposition of ta’widh. IFI were then able to take steps to assist their customers to bounce back from the crisis.” (Partner, Raja, Darryl & Loh) “Covid did led to unprecedented consequences including significant volatilities to the financial markets, and takaful sectors are not being left alone. The takaful sectors have been measuring and assessing the impact by developing their very own contingency plans suits to each of the companies’ goals and objective as they are positive that the impact viewed as severe, but temporary. Takaful industries remain to being the closest entity to the communities and play a critical role in ensuring they are ready to mitigate their unexpected shock, preserve their assets and take productive risks. For example, mysalam extended their coverage from death, and critical illness coverage (basic) to cove Covid-19 post-effect and hospitalization due to Covid to b40 segments in Malaysia. Some of the takaful operators even come up with microtakaful products to cater to lower income group for them to have at least a minimum coverage from as low as rm3.00 per month as the industries truly understands that people earned income was affected during this crisis. With these steps, it also can create an awareness on the importance of takaful and how it can help the needy in the future.” (Business Development Director, Great Eastern Takaful Berhad) “Surprisingly 2020 and 2021 saw growth in the family takaful industry. The pandemic had helped shaped public awareness on importance of takaful coverage especially Medical Coverage. Term Takaful with basic death coverage also saw a rise in new business. The Crisis had led to Takaful Operators rethink on their product design and strategy i.e. exclusion/inclusion of pandemic clauses. Covid also saw how takaful companies went above and beyond their internal policies to honour certificates that had exclusion clauses and some even offered cash assistance to those infected by Covid. Covid-19 and its subsequent events i.e Lockdown have affected Takaful Operations initially. Takaful Operators had to mobilize Work from home arrangements and this halted or delayed Underwriting and Claims processes. For agency force and agents, some TO’s had already built remote submission of business and other digitization capabilities We saw agents who were committed and creative in promoting takaful by embracing technology and digital platforms. From investment point of view, Covid-19 had a significant impact to the economy in general which caused sharp corrections in the equity and bond markets. Takaful companies are very much exposed to the market volatility

	as they invest the assets (contributions earned) to get higher returns. As market prices drop so does the profitability and capital reserves of the company. As with other Financial Institutions, the sector is expected to rebound from the opening of the economy as consumption rises and business activities normalise. Investment returns from equities is expected to improve while the higher yield from the bond market will provide good sustainable returns over the long term. Takaful companies are in a much better position to withstand shocks such as the Covid-19 crisis due to better capitalisation and robust risk management framework. In terms of how the Takaful industry helps the economy during Covid-19 in Malaysia; The takaful industry is one of the key players in the capital market providing liquidity and supporting the issuance of government and corporate debts. These monies are then used by the government to help fund relieve measures during Covid-19 such as rebates and subsidies to the Rakyat and funding for the healthcare system. Similarly, for corporates looking to raise funding via equity or debt markets for working capital. As one of the institutional investors in Malaysia, the Takaful industry together with pension funds and other local investors provide the country with a strong domestic funding source without needing to rely on offshore borrowings like other developing countries.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)
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5.4.2.2 Information on the Islamic Banking-Growth Nexus

The second part of the interview questions explores the IB-growth nexus in Malaysia. It explores generally on whether or not IB is becoming more *Shari'ah*-compliant. There are 5 questions for this part; 1) Is the IB sector moving towards debt or equity financing? 2) Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? 3) Does the Islamic financial sector, particularly the IB (IB) sector, have any significant impact on environmental, social and governance (ESG) objectives? 4) Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? 5) Is IB sector now changing to include more social narratives? Four experts in the industry, which include CEO of IILM, Managing Director of Elzar Shariah Solution Sdn. Bhd., Head of *Shari'ah* Department of HSBC Amanah Malaysia, and Partner of Raja, Darryl & Loh are interviewed for this part.

The results show that although IB sector is gradually moving towards equity financing, with rigorous efforts are being made to improve and embrace equity financing, it is still highly-dependent on debt-financing, which is not wrong from

Shari'ah point of view as long as it fulfils the criteria. Besides, majority of the experts believe that Islamic banks are currently actively participating in Islamic social finance, and they should involve more to promote Islamic economics. However, Dr. Ahmed Firas, the Head of *Shari'ah* Department, HSBC Amanah Malaysia, believe that Islamic banks should not involve too directly in Islamic social finance as we should not commercialize things that should not be commercialized. Hence, there is a need to grow other institutions that are mandated to focus on Islamic social finance. In addition, all experts agree that the current IB sector is gradually moving towards emphasizing the ESG objectives. They also believe that IFSA 2013 is playing a significant role in stimulating the economic growth in Malaysia by ensuring stability, spurring growth amongst SMEs in Malaysia, giving more authority to *Shari'ah* scholars so that the policies are more *Shari'ah*-compliant, and providing a good platform for further developing the products under equity (risk-sharing). Last but not least, they also agree that IB sector is currently including more social narratives via emphasizing on the ESG, increasing the corporate social responsibility (CSR) budget allocation, implementing VBI, and providing financing/capital/fund to the society. Therefore, it can be concluded that IB sector is becoming more *Shari'ah*-compliant via an improved policy and by actively participate in social contributions. The outputs of the interviews under this theme (IB and Economic Development) are outlined in Table 5.37.

Table 5.37 Output of Interviewees on IB and Economic Development

Questions	Description
1. Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes?	Experts agree that although IB sector is gradually moving towards equity financing and rigorous efforts are being made to improve and embrace equity financing, it is still highly-dependent on debt-financing, which is not wrong from <i>Shari'ah</i> point of view as long as it fulfils the criteria. <i>“With the Investment Account model introduced by BNM and the introduction of the Investment Account Platform, there is a gradual move towards equity financing. However, there is nothing wrong with debt financing modes provided the debt obligations are properly documented. After all, the longest verse of the Qur'an is ayat al-dayn prescribing how debt financing obligations should be properly documented.”</i> (CEO, IILM) <i>“I do not agree with the statement that equity financing is more Islamic than debt financing. There are no nas and dalil from the Prophet, that states that equity financing is better than debt financing. In Islam, debt is allowable as long as it is manageable. In Islamic financial institutions, they look at the customer's liabilities and eligibilities before approving any loans. Currently, equity financing also is not totally <i>Shari'ah</i>-compliant, and more efforts are needed to improve it.”</i> (Managing Director, Elzar Shariah Solution Sdn. Bhd.)

	<i>“Equity financing should only be provided by capital market intermediaries such as investment banks, who raise funds from sophisticated investors (as opposed to savers) who are willing and able to allocate a portion of their capital to bear equity risk and potential losses. Banks are funded by debt-based deposits provided by savers and businesses who need capital preservation and require regular access to their funds. Hence, it would be imprudent to expect such banks to take equity risk when deploying such deposits to provide financing. It would create a huge balance sheet mix-match in terms of risk profiles. As a result, the products in the IB sector are debt-based credit-risk facilities. However, in terms of the Shariah contracts used, there is a mix of debt-based and equity-based contracts, although they are all structured into credit-risk facilities. The Malaysian Islamic Financial Institutions (IFIs)’s financing by Shari’ah contract is dominated by Tawarruq (69%), and followed by Ijarah (12%), Bai’ Bithaman Ajil (9%), Musyarakah (9%), and Murabahah (1%). Tawarruq is dominated by four of the largest IFIs in Malaysia; 1) Maybank Islamic (45%), 2) CIMB Islamic (12%), 3) Bank Islamic (10%), and 4) RHB Islamic (9%). However, according to BNM Annual Report (2021), the Financial Sector Blueprint 2022-2026 sets out to promote VBI by reducing the concentration on Tawarruq, and push towards equity-based financing contracts in credit facility.” (Head of Shari’ah Department, HSBC Amanah Malaysia)</i> <i>“IB sector currently is primarily based on debt-financing. It is moving towards equity, but it still needs more works, as there are currently lack of successful case studies on equity.” (Partner, Raja, Darryl & Loh)</i>
2. Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions.	Majority of the experts believe that Islamic banks are currently actively participating in Islamic social finance, and they should involve more to promote Islamic economics. However, Dr. Ahmed Firas, the Head of Shari’ah Department, HSBC Amanah Malaysia, believe that Islamic banks should not involve too directly in Islamic social finance as we should not commercialize things that should not be commercialized. Hence, there is a need to grow other institutions that are mandated to focus on Islamic social finance. <i>“Islamic financial institutions should be compelled under regulatory prescriptions to be more involved in Islamic social finance. Such involvement promotes the original value proposition of Islamic economics.” (CEO, IILM)</i> <i>“They are involving in it.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.)</i> <i>“I think that Islamic banks should not involve too directly in Islamic social finance as they might harm the original objectives of Islamic social finance. This is because Islamic banks are for-profit-organizations and they are responsible to protect the savings of their depositors. Hence their involvement would be commercial in nature, and we should not commercialize things that should not be commercialized. Islamic economics ecosystem should not be based only on Islamic banks. It is time to grow other institutions that are mandated to focus on Islamic social finance. In fact, the first IF institution in Malaysia was a social enterprise which is Tabung Haji. For instance, there is a recent case where Amanah Lebuhraya Berhad (ALR), a non-profit organization, purchased many toll highways in Malaysia from Gamuda, a profit-maximizing company, to make sure that the toll’s price will not go high. The mosque also can be</i>

	<i>part of social finance's effort too.</i>" (Head of Shari'ah Department, HSBC Amanah Malaysia) <i>"Currently, there many Islamic banks that have been involving in Islamic social finance such as waqf. There are also other specific institutions that manage waqf, which Jabatan Wakaf, Zakat dan Haji (JAWHAR), but it is quite conservative compared to Singapore's one."</i> (Partner, Raja, Darryl & Loh)
3. Does the Islamic financial sector, particularly the IB (IB) sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG?	All experts agree that the current IB sector is gradually moving towards emphasizing the ESG objectives. <i>"The Islamic financial sector could negatively impact the ESG objectives since until recently, there has not been many efforts to ensure transactions are compliant with ESG objectives. There has been too much focus on Shariah compliance, which is of course, the hallmark of IF. However, a further probe into Shariah compliance reveals the need to ensure every product or service fulfils the Maqasid al-Shariah requirements which promote ESG. Shariah scholars do not always focus on such aspects but as seen in some Sukuk transactions, there is a gradual focus on the ESG objectives. With the VBI and other initiatives introduced by the Securities Commission, there is a gradual move towards emphasizing the ESG objectives in the Islamic financial sector."</i> (CEO, IILM) <i>"Yes, VBI is implemented to support ESG and sustainable development goals (SDG), and currently, Islamic financial institutions also implement ESG ratings."</i> (Managing Director, Elzar Shariah Solution Sdn. Bhd.) <i>"In the past, IB does not cater to ESG objectives, where as long as the projects are legal and does not involve non-Halal sectors, regardless of the environmental, or governance harms such as labour practices and so on, Islamic banks will just provide the funds. Currently, under the United Nations Sustainable Development Goals' framework, which promotes ESG objectives, some Islamic banks in Malaysia have started to cater to ESG objectives, where projects must be based on value-based judgement. For instance, the implementation of VBI has shown that Islamic banks are moving towards ESG. For instance, if a palm oil sector company wants to do a project that has labour abuse, it will not be approved and funded. HSBC Amanah aims to be the first bank to achieve the goal as majority of its financings are VBI-compliant by end of 2022."</i> (Head of Shari'ah Department, HSBC Amanah Malaysia)
4. Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not?	All experts agree that IFSA 2013 stimulates economic growth in Malaysia by ensuring stability, spurring growth amongst SMEs in Malaysia, giving more authority to Shari'ah scholars so that the policies are more Shari'ah-compliant, and providing a good platform for further developing the products under equity (risk-sharing). <i>"Yes. Examples given earlier include the Investment Account Platform, which has spurred growth among SMEs in Malaysia."</i> (CEO, IILM) <i>"Yes, as mentioned before, IFSA 2013 has brought the IF industry closer to Islamic values, as IFSA 2013 covers more areas than IB Act 1983. It is a good Act, which gives a little more seriousness towards Islamic values, for instance, Shari'ah scholars have become more authoritative, and Central bank can amend/update policies that are more Shari'ah-compliant. For these reasons, IFSA 2013 is good for economic growth."</i> (Managing Director, Elzar Shariah Solution Sdn. Bhd.)

	<i>"Yes, as mentioned before, IFSA 2013 ensures stability, which is good for economic growth."</i> (Head of Shari'ah Department, HSBC Amanah Malaysia) <i>"As mentioned before, IFSA 2013 does gives opportunity for growth as it provides a good platform for further developing the products under equity (risk-sharing)."</i> (Partner, Raja, Darryl & Loh)
5. Is IB sector now changing to include more social narratives?	All experts agree that IB sector is currently including more social narratives via emphasizing on the ESG, increasing the corporate social responsibility (CSR) budget allocation, implementing VBI, and providing financing/capital/fund to the society. <i>"Yes. This is seen in the continuous emphasis on ESG, increasing importance of Islamic social finance, as well as the VBI strategy introduced by BNM."</i> (CEO, IILM) <i>"IF currently is discussing about Islamic social products. They are finding tunings on their products to become more socially-adapted. Not only that, they also have corporate social responsibility (CSR) budget allocation, where they are reaching out the poor to provide help, the media to support Islamic programs, and also students to provide scholarships."</i> (Managing Director, Elzar Shariah Solution Sdn. Bhd.) <i>"Yes, the implementation of VBI has shown that the sector is now changing to include more social narratives."</i> (Head of Shari'ah Department, HSBC Amanah Malaysia) <i>"IB sector is practicing social narratives, where it is providing financing/capital/fund to the society. However, it is still depending on the debt-based products, and it is necessary to move towards equity (risk-sharing), but I do not think that risk-sharing will be practiced in Islamic banks. Equity financing would be more developed in non-banking industry such as crowd-funding."</i> (Partner, Raja, Darryl & Loh)

5.4.2.3 Information on the Islamic Capital Market-Growth Nexus

The third part of the interview questions explores the Islamic capital market-growth nexus in Malaysia. It explores generally on whether or not ICM is contributing to the economic growth, and how IFSA 2013 impacts the nexus. There are 5 questions for this part; 1) Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? 2) Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? 3) Do you think ICM has moved more towards finance or economics? 4) In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? 5) Do you think the ICM is now changing to include more social narratives? Three experts in the industry, which include CEO of IILM, Managing Director of Elzar

Shariah Solution Sdn. Bhd., and Head of *Shari'ah* Department of HSBC Amanah Malaysia are interviewed for this part. Meanwhile, Partner of Raja, Darryl & Loh has given his opinion on the first question only.

The results show that while IFSA 2013 is not meant to regulate the ICM in Malaysia, it does promote economic growth by ensuring stability in the market. In addition, the experts agree that ICM is significantly contributing to the ESG via the implementation of SRI Sukuk, Bond Grant Scheme, ESG Financing/Sukuk, and value-based judgement projects. They also opine that finance and economics are two different things, and ICM is a bit of both, where it is contributing to both. The funds raised are meant to finance the economy. They also agree that both IB and ICM sectors are significant and complementing each other as they play different roles in promoting Islamic economics. Last but not least, all experts agree that the current ICM is changing to include more social narratives as its products are becoming more socially-adapted such as green sukuk and SRI sukuk that promote ESG objectives. The outputs of the interviews under this theme (ICM and Economic Development) are outlined in Table 5.38.

Table 5.38 Output of Interviewees on ICM and Economic Development

Questions	Description
1. Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not?	While IFSA 2013 is not meant to regulate the ICM in Malaysia, it does promote economic growth by ensuring stability in the market. <i>“Yes, from the financial sector and the specific roles of Islamic banks. However, IFSA is not meant to regulate the ICM in Malaysia. The laws that regulate the ICM in Malaysia are the Capital Markets and Services Act 2007 and the Securities Commission Malaysia Act 1993 as well as numerous regulations issued pursuant to these laws.”</i> (CEO, IILM) <i>“Yes, as in ICM, those who have money are helping those who are in need of fund (win-win situation). Those who are in need of fund are able to expand their businesses because of the availability of the funds via sukuk, Islamic microfinancing, Islamic crowdfunding, digital assets, P2P, and so on.”</i> (Managing Director, Elzar Shariah Solution Sdn. Bhd.)

	<i>“Yes, as mentioned before, IFSA 2013 ensures stability, which is good for economic growth.”</i> (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia) <i>“IFSA regulates banking and takaful industry. Can’t think of any example how IFSA has enabled ICM sector to contribute more to economic growth and development.”</i> (Partner, Raja, Darryl & Loh)
2. Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG?	Experts agree that ICM is significantly contributing to the ESG via the implementation of SRI Sukuk, Bond Grant Scheme, ESG Financing/Sukuk, and value-based judgement projects. <i>“Yes, through the numerous interventions from the Securities Commission of Malaysia. For instance, the Securities Commission has introduced the SRI Sukuk and Bond Grant Scheme with the objective of incentivizing and encouraging more issuers to finance green, social and sustainability projects through the issuing of sukuk under its unique SRI Sukuk Framework. Such pioneering regulatory efforts will spur significant ESG-enabled growth in the Islamic capital market.”</i> (CEO, IILM) <i>“Yes, IF in the west is being promoted as ESG financing or ESG sukuk.”</i> (Managing Director, Elzar Shariah Solution Sdn. Bhd.) <i>“Just like IB sector, ICM also have started to move towards value-based judgement with frameworks such as Sustainable and Responsible Investment (SRI) sukuk.”</i> (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia)
3. Do you think ICM has moved more towards finance or economics?	Finance and economics are two different things, and ICM is a bit of both, where it is contributing to both. The funds raised are meant to finance the economy. <i>“It is a bit of both, as the ICM sits within the ambit of the financial market, but the funds raised are meant to finance the real economy in most cases.”</i> (CEO, IILM) <i>“Finance is a subset of economics. Finance is contributing to both.”</i> (Managing Director, Elzar Shariah Solution Sdn. Bhd.) <i>“Finance and economics are two different things.”</i> (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia)
4. In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions.	Experts believe that both sectors are significant and complementing each other as they play different roles in promoting Islamic economics. <i>“One may not ordinarily conclude that one sector is better than the other. Both sectors have their potentials as they both contribute to the promotion of Islamic economic values. Both</i>

	sectors could be regarded as complementary in their efforts toward achieving Islamic economic values.” (CEO, IILM) “Both play different roles in achieving Islamic economic values and objectives.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “The two sectors are needed are they achieve different goals.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia)
5. Do you think the ICM is now changing to include more social narratives?	Experts agree that the current ICM is changing to include more social narratives as its products are becoming more socially-adapted such as green sukuk and SRI sukuk that promote ESG objectives. “Yes, as explained above through numerous frameworks introduced to promote ESG in sukuk issuances.” (CEO, IILM) “Yes, they are finding tunings on their products to become more socially-adapted.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “Yes, the implementation of green sukuk and SRI sukuk has shown that the sector is now changing to include more social narratives.” (Head of <i>Shari’ah</i> Department, HSBC Amanah Malaysia)

5.4.2.4 Information on the Takaful-Growth Nexus

The fourth part of the interview questions explores the Takaful-growth nexus in Malaysia. It explores generally on whether or not Takaful industry is contributing to the economic growth, and how IFSA 2013 impacts the nexus. There are 5 questions for this part; 1) In what way do you think has the Takaful industry contributed to the economic growth of the country? 2) Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? 3) Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? and 4) Do you believe the Takaful sector is now changing to include more social narratives? Five experts in the industry, which include CEO of IILM, Managing Director of Elzar Shariah Solution Sdn. Bhd., Head of Corporate Planning & Strategy and Assistant Vice President of Etiqa, and Business Development Director of Great Eastern Takaful Berhad

are interviewed for this part. Meanwhile, Partner of Raja, Darryl & Loh has given his opinion on the first question only.

The results show that Takaful industry has contributed its own humble quota to economic growth by creating jobs to the society and adding values to both participants and businesses. Besides, IFSA 2013 has enabled the Takaful sector to contribute more to economic growth as it facilitates BNM to monitor the safety and soundness of IFIs via its enhanced regulatory framework. It also facilitates people to distribute wealth more efficiently, and hence generating more economic impact. Head of Corporate Planning & Strategy and Assistant Vice President of Etiqa reveal that the Takaful industry has grown 10-13% annually as in 2022 since the implementation of IFSA 2013. In addition, all interviewees also agree that Takaful sector have a significant impact on ESG objectives via the implementation of VBI, ESG ratings, sustainable business practices and values within the takaful businesses, and rigorous efforts to incorporate ethical and environmentally conscious practices as part of their corporate social responsibility while developing disastrous risk management products like climate risk related insurance. They believe that Takaful sector is now changing to include more social narratives via the application of *tabarru'* and *ta'awun*, more socially-adapted products, education and awareness campaigns to the public, and a financial safety net. The outputs of the interviews under this theme (Takaful and Economic Development) are outlined in Table 5.39.

Table 5.39 Output of Interviewees on Takaful and Economic Development

Questions	Description
1. In what way do you think has the Takaful industry contributed to the economic growth of the country?	Experts agree that Takaful industry has contributes its own humble quota to economic growth by creating jobs to the society and adding values to both participants and businesses. <i>“Unlike other sectors of the Islamic financial sector, takaful has not experienced significant growth globally. However, it has contributed its own humble quota to economic growth of the country. I will assess such growth from the perspective of product structure of takaful as compared to the conventional insurance product. When takaful products provide some surpluses</i>

	as well as significant discounts to individuals and SMEs at the end of the financial year, then such clients will have more money to spend on other developmental needs.” (CEO, IILM) “There are two types of products; 1) Family Takaful, and 2) General Takaful. General Takaful are normally helping for accidents. For example, if something happens to their assets such as car and motorbike, Takaful will help to fix their assets. Family Takaful on the other hand, provide funds to the beneficiary of the Takaful participants if they suffer a tragedy. It also involves investment-linked Takaful, which will also contribute to economic growth. Takaful is also creating jobs to the society, and it is adding values to both the participants and businesses.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.) “The Malaysian takaful industry’s sound contribution growth has been led by family takaful, rising by 46.7% in 1H21 (2020: 7.08%). General takaful grew by 13.5% in the same period (2020: 4.61%). The sharp growth in contributions was propelled by a boost in public awareness of takaful products, supportive government initiatives, easing of Covid-19 movement restrictions and a recovering economy. Takaful sector is expected to continue its sound growth in 2022 on improved penetration rates, business models and technology capabilities amid higher takaful awareness, digitalisation innovation and government initiatives. Malaysia is the third-largest takaful market globally, according to Islamic Financial Services Board, with a vibrant IF ecosystem that includes Islamic banks, sharia-compliant corporates, Islamic fund managers, and halal industries that seek takaful products. Additionally, the Takaful industry can aspire to further penetrate or focus their efforts to support untapped and/or underserved market segments (B40, Rural areas, Senior Citizens, etc.) to address their respective protection gaps. On a broad macro level, Malaysia’s protection gap amounts up to RM2,489 billion presenting a major gap which needs to be addressed by the Insurance and Takaful industry. This is to ensure that Malaysians are sufficiently insured to protect and provide for their loved ones in the event of
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	<i>their death or disability.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)</i> <i>“The current rapid development of IF has necessitated the need for Shari’ah- compliant alternative to conventional. This alternative, which is based on Shari’ah principles may also be referred to as “Islamic insurance”. Takaful operates in line with Shari’ah principles and, at the same time, offers the benefits and services equivalent to its conventional counterpart. Therefore, Takaful has evolved in response to the ever-increasing yearning of faith-based financial consumers for an insurance system fulfils their religious beliefs and provides the desired risk coverage for individuals and IFIs.” (Business Development Director, Great Eastern Takaful Berhad)</i>
2. Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not?	Experts agree that IFSA 2013 has enabled the Takaful sector to contribute more to economic growth as it facilitates BNM to monitor the safety and soundness of IFIs via its enhanced regulatory framework. It also facilitates people to distribute wealth more efficiently, and hence generating more economic impact. Head of Corporate Planning & Strategy and Assistant Vice President of Etiqa reveal that the Takaful industry has grown 10-13% annually as in 2022 since the implementation of IFSA 2013. <i>“Yes, through enhanced regulatory framework. All the initiatives contained in IFSA will have positive impact on economic growth and development.” (CEO, IILM)</i> <i>“Yes, as mentioned before, IFSA 2013 has brought the IF industry closer to Islamic values, as IFSA 2013 covers more areas than IB Act 1983. It is a good Act, which gives a little more seriousness towards Islamic values, for instance, Shari’ah scholars have become more authoritative, and Central bank can amend/update policies that are more Shari’ah-compliant. For these reasons, IFSA 2013 is good for economic growth.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.)</i>

	<i>“From a takaful point of view, changes made in the IFSA have helped spur the growth on takaful of Malaysia. Industry has grown 10-13% Annual. Changes on nomination process and requirements have made it easy for people to distribute wealth more efficiently thus generating more economic impact.”</i> (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa) <i>“Agreed. IFSA facilitates the central bank of Malaysia (BNM) to monitor the safety and soundness of IFIs; the proper functioning of the Islamic financial market with integrity and orderliness; the safety, efficiency and reliability of Islamic payment systems and improving the Takaful Sector in 72 Islamic Countries with 62 instruments; and fair, responsible and professional business conducts. BNM is also responsible for ensuring that the rights and interests of IF consumers are well protected.”</i> (Business Development Director, Great Eastern Takaful Berhad)
3. Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG?	Experts agree that Takaful sector have a significant impact on ESG objectives via the implementation of VBI, ESG ratings, sustainable business practices and values within the takaful businesses, and rigorous efforts to incorporate ethical and environmentally conscious practices as part of their corporate social responsibility while developing disastrous risk management products like climate risk related insurance. <i>“The VBI strategy introduced by BNM also covers the takaful sector; hence, the takaful sector has positive impact on ESG objectives. The pandemic has also engendered the general move toward ESG in Malaysia. In its recent Exposure Draft on Climate Risk Management and Scenario Analysis, BNM emphasized the requirements and expectations on the part of financial institutions, including Takaful operators, to strengthen their efforts toward managing financial risks that emanate from climate change.”</i> (CEO, IILM)

	<i>“Yes, currently, Islamic financial institutions also implement ESG ratings.” (Managing Director, Elzar Shariah Solution Sdn. Bhd.)</i> <i>“The launch of VBI initiative in 2017 by BNM to the IB side shows that ESG has significant impact towards the financial industry. As such, led by the Malaysia Takaful Association (MTA), the VBI Takaful framework was launched last year that seeks to further ingrain sustainable business practices and values within the takaful businesses. It is expected that this framework will amplify the takaful value proposition to realise the intended outcomes of shariah in its conduct and offerings, going beyond the minimum shariah requirements. The concept of Maqasid Shariah provides a clear guidance & framework to the process of ijtihad (independent reasoning) in solving the issues conforming to the human interest while complying with the will of God.” (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa)</i> <i>“The IF industry also has been adapting and including environmental concerns in their charter which is evident by the emergence and rapid prevalence of green Sukuk and Shariah compliant green and sustainable investment products. However, when it comes to the Takaful industry, not much can be said in this regard. Insurance companies on the other hand are still working on incorporating ethical and environmentally conscious practices as part of their corporate social responsibility, meanwhile developing disastrous risk management products like climate risk related insurance. Thus, the IF industry should naturally aim towards establishing a diverse and robust ecosystem which is environmentally sustainable as Islam emphasizes on the importance of environment preservation.” (Business Development Director, Great Eastern Takaful Berhad)</i>
4. Do you believe the Takaful sector is now changing to include more social narratives?	Experts agree that Takaful sector is now changing to include more social narratives via the application of <i>tabarru’</i> and <i>ta’awun</i>, more socially-adapted products, education and awareness campaigns to the public, and a financial safety net.

	<i>“There is a general move towards emphasizing on social aspects in every sector of the IF industry. The very basis of takaful includes the social narratives as some of the underlying Shariah principles such as tabarru’ and ta’awun all have social dimensions.”</i> (CEO, IILM) <i>“Yes, they are finding tunings on their products to become more socially-adapted.”</i> (Managing Director, Elzar Shariah Solution Sdn. Bhd.) <i>“Yes. Creating awareness or educating the public through social narratives might bring a better impact to the community. It provides accurate social information in a reassuring way, which can be easily understood by the person it is written for. The aim is not to change a behaviour, but to allow the individuals to improve their understanding of an event or expectation, therefore leading to a more effective response to it.”</i> (Head of Corporate Planning & Strategy and Assistant Vice President, Etiqa) <i>“Many activities done within the Takaful industry by leveraging any fruitful events to be part of the communities and as they perform the essential function of providing a financial safety net in the event something unexpected happens to you, such as developing a critical illness, getting into an accident, incurring loss of property, or even death.”</i> (Business Development Director, Great Eastern Takaful Berhad)
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5.4.2.5 Summary of the Output

Based on the results of the interviews, several crucial points have been summarized as illustrated in Table 5.40 as shown below.

Table 5.40 Summary of the Output (Qualitative Results)

Themes	Summary
Information on IF-Growth Nexus from the Perspective of Islamic Economics	• This theme is to acquire the information on IF-growth nexus from perspective of Islamic economics. • Seven experts in the industry have shared their answers. • All experts agree that additional metrics to measure economic growth such as CPI, HDI, <i>Zakat</i>, <i>Waqaf</i>, and poverty metrics need to be considered as the current metrics do not reflect a fair distribution amongst the society. • All experts believe that the current Islamic financial system in Malaysia has progressed further in satisfying the <i>Maqasid al-Shari'ah</i>, especially with the implementation of VBI and ESG. • All experts believe that IFSA 2013 has brought the IF industry closer to Islamic values and will impact the economic growth in a positive way. • All experts believe that both practitioners and academicians should have a mutual understanding to further reduce the tension that exists between them, so that more significant contributions can be made to the industry. • All experts agree that the public is still having a lack of understanding in Islamic economics as well as IF as a whole. • Experts agree that Covid-19 has impact the IF industries as they are exposed to the market volatility. However, there are additional measures and resolutions announced by the IFIs to solve the issues. Moratorium, <i>ta'widh</i>, <i>mysalam</i>, microtakaful products, rebates, subsidies, and healthcare funds are some of the measures taken by the IFIs to help the economy bounces back from the crisis.
Information on the IB-Growth Nexus	• This theme is to acquire the information on IB-growth nexus. • Four experts in the industry have shared their answers. • All experts agree that although IB sector is gradually moving towards equity financing, it is still highly-dependent on debt-financing.

	• All experts except for Dr. Ahmed Firas, the Head of <i>Shari'ah</i> Department, HSBC Amanah Malaysia, agree that IB sector is actively participating in Islamic social finance. • All experts believe that IB sector is gradually moving towards emphasizing the ESG objectives. • All experts believe that IFSA 2013 is playing a significant role in stimulating the economic growth in Malaysia. • All experts agree that IB sector is currently including more social narratives.
Information on the Islamic Capital Market-Growth Nexus	• This theme discusses on the Islamic capital market-growth nexus. • 3 experts in the industry have shared their answers. • All experts agree that while IFSA 2013 is not meant to regulate the ICM in Malaysia, it does promote economic growth by ensuring stability in the market. • All experts agree that ICM is significantly contributing to the ESG via the implementation of SRI <i>Sukuk</i>, Bond Grant Scheme, ESG Financing/<i>Sukuk</i>, and value-based judgement projects. • They agree that both IB and ICM sectors are significant and complementing each other as they play different roles in promoting Islamic economics. • All experts agree that the current ICM is changing to include more social narratives that promote ESG objectives.
Information on the Takaful-Growth Nexus	• This theme discusses on Takaful-growth nexus. • 5 experts in the industry have shared their answers. • All experts agree that Takaful industry has contributed its own humble quota to economic growth by creating jobs to the society and adding values to both participants and businesses. • All experts agree that IFSA 2013 has enabled the Takaful sector to contribute more to economic growth. • All experts agree that Takaful sector have a significant impact on ESG objectives. • All experts agree that Takaful sector is now changing to include more social narratives.

From the in-depth interviews with seven experts in IF industry, which include IB, Takaful, and ICM sectors. The interviews are divided into four themes: 1) Information on IF-Growth Nexus from the Perspective of Islamic Economics, 2) Information on the IB-Growth Nexus, 3) Information on the Islamic Capital Market-Growth Nexus, and 4) Information on the Takaful-Growth Nexus.

The first theme of the interview summarizes six significant points. Firstly, there is a need to add additional metrics such as CPI, HDI, *Zakat*, *Waqaf*, and poverty metrics to measure economic growth as the current metrics do not reflect a fair distribution amongst the society, according to the experts. For instance, Dr. Firas, Head of *Shari'ah* Department, HSBC Amanah Malaysia opines that GDP is only measuring the country's production, not wealth distribution. Secondly, they believe that the current Malaysian Islamic financial system is progressing really well is satisfying *Maqasid al-Shari'ah*, especially with the application of VBI and ESG. Thirdly, they strongly agree that IFSA 2013 has brought the IF industry closer to Islamic values and will impact the economic growth in a positive way. Fourthly, the industry can grow further, according to them, if both practitioners and academicians have a mutual understanding to further reduce the tension that exists between them. Fifthly, they also state that the general public is still having a lack of understanding in Islamic economics as well as IF as a whole. Last but not least, experts agree that Covid-19 has impacted the IF industries as they are exposed to the market volatility. However, there are additional measures and resolutions announced by the IFIs to solve the issues. Moratorium, *ta'widh*, *mysalam*, microtakaful products, rebates, subsidies, and healthcare funds are some of the measures taken by the IFIs to help the economy bounces back from the crisis.

The second theme of the interview summarizes five important points. Firstly, all experts agree that although IB sector is gradually moving towards equity financing, it is still highly-dependent on debt-financing. Secondly, all experts except for Dr. Ahmed Firas, the Head of *Shari'ah* Department, HSBC Amanah Malaysia, agree that IB sector is actively participating in Islamic social finance. Meanwhile, Dr. Ahmed Firas believe that there is a need to establish other institutions that focus on the Islamic social finance as he opines that one should not commercialize things that should not be commercialized. Thirdly, they all believe that IB sector is gradually moving towards

emphasizing the ESG objectives, and fourthly, IFSA 2013 is playing a significant role in stimulating the economic growth in Malaysia. Last but not least, they all agree that IB sector is currently including more social narratives.

The third theme of the interview highlights four significant points. Firstly, all experts agree that while IFSA 2013 is not meant to regulate the ICM in Malaysia, it does promote economic growth by ensuring stability in the market. Secondly, they agree that ICM is significantly contributing to the ESG via the implementation of SRI Sukuk, Bond Grant Scheme, ESG Financing/Sukuk, and value-based judgement projects. Thirdly, they believe that both IB and ICM sectors are significant and complementing each other as they play different roles in promoting Islamic economics. Last but not least, all experts agree that the current ICM is changing to include more social narratives that promote ESG objectives.

The final theme of the interview highlights four important points. Firstly, all experts agree that Takaful industry has contributed its own humble quota to economic growth by creating jobs to the society and adding values to both participants and businesses. Secondly, they agree that IFSA 2013 has enabled the Takaful sector to contribute more to economic growth. Thirdly, they also agree that Takaful sector have a significant impact on ESG objectives. Last but not least, all experts agree that Takaful sector is now changing to include more social narratives, as mentioned by the Head of Corporate Planning & Strategy and Assistant Vice President of Etiqa, that creating awareness or educating the public through social narratives might bring a better impact to the community. It provides accurate social information in a reassuring way, which can be easily understood by the person it is written for. The aim is not to change a behaviour, but to allow the individuals to improve their understanding of an event or expectation, therefore leading to a more effective response to it.

5.5 CONCLUSION

This chapter details the practical results of the study, which consists of three research objectives, with two different themes for IB and ICM sectors: 1) In the absence of dummy IFSA 2013, 2) In the presence of dummy IFSA 2013, and also two different

themes for Takaful sector: 1) Before the implementation of IFSA 2013, and 2) After the implementation of IFSA 2013. Section 5.2.2 discusses the outcome of the main regression analysis for IB and ICM sectors, which adopt ARDL method. Additional tests and diagnostic analysis to ascertain the appropriateness of variables is included in this section. Section 5.2.3 depicts descriptive statistics, and correlation matrix of the variables in the Takaful sector. Section 5.3 depicts the summary of the quantitative outputs, while section 5.4 illustrates the findings of qualitative analysis to answer the third research objectives of the study. Last but not least, section 5.5 concludes the chapter.



CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter provides the conclusion for this study. This chapter is structured into four sections. It comprises of introduction, summary of the results, recommendations, and limitations and suggestions for future research. Firstly, an introduction is presented to give an overview of the chapter. Subsequently, the summary of the results is illustrated, where the results of the three objectives of the study are elaborated. Then, the next section explains the recommendations to further enhance the IF-growth nexus. Finally, the closing section clarifies the limitations of the study and some suggestions for the future research, followed by the conclusion.

6.2 SUMMARY OF THE RESULTS

In Malaysia, abundance of studies in the area of Islamic finance-growth nexus have been focusing heavily on IB sector. There are very few studies that take into account other sector like ICM and Takaful. Furthermore, there are also limited studies that consider the changes in the legal and supervisory framework via the implementation of IFSA 2013 in the Malaysian Islamic financial sector landscape. A policy shift has been implemented by IFSA 2013 and will take effect on July 1, 2015, where the current Islamic deposit products that implement the *Shari'ah* contracts of *Wakalah*, *Musharakah*, and *Mudarabah* are classified as investment products, in which the principal is not guaranteed under the *IA* (Bank Islam Malaysia Berhad, 2014). Correspondingly, this study intends to analyse the nexus between Malaysian Islamic financial sector, which includes IB, ICM, and Takaful sectors, and real economic growth in Malaysia by taking into account the implementation of IFSA 2013 in the analysis. There are three research objectives of the study:

1. To investigate the relationship of each component of financial sector (IB, ICM,

and Takaful) and real economic growth in Malaysia in the short-run and long-run.

2. To analyse whether the introduction of IFSA 2013 has a significant effect on each of the three sectors of Islamic finance (IB, ICM and Takaful) and real economic growth in Malaysia in the short-run and long-run.
3. To observe whether IF is fulfilling the goals of Islamic economics.

To answer research objective 1, the Islamic finance-growth nexus is analysed without the inclusion of IFSA 2013. In the absence of IFSA 2013, it is found that the link between all of the IB variables, which are *IBD*, *IA*, *IBF*, and *IBA* and the real economic growth are positively significant in the short run. On the other hand, in the long run, it is shown that link between most of the IB variables, which are *IBD*, *IBF*, and *IBA* and the real economic growth are positively significant. Hence, it can be concluded that IB is linked positively significant to the economic growth both in the short and long runs in the absence of IFSA 2013. This result is in line with the study of by Caporale and Helmi (2018), Boukhatem and Ben Mousa (2018), Anwar et al. (2020), Mensi et al. (2020), Gani and Bahari (2021), and Naz and Gulzar (2022).

Meanwhile, for ICM sector, it is shown that both *SCS* and *SCMC* significantly affect the real economic growth positively in the short run. This result is consistent with the studies of Musa et al. (2020) and Tan and Shafi (2021), which suggest that the economic growth will intensifies as the ICM size increases. Meanwhile, in the long run, only *SCMC* is found to positively affect the real economic growth significantly, whereas *SCS* is found to negatively affect the real economic growth significantly. This result is consistent with the study of Chu and Chu (2020), who found that an excessive liquidity can affect the economic growth negatively, plus the growth-enhancing effect of financial liquidity is more robust only in high-income countries. This is supported by the study of Viswanathan and Acharya (2011), He and Xiong (2012), and Ghenimi et al. (2017), who proposed that an excessive credit supplied (liquidation) by the financial intermediaries can lead to the deterioration of balance sheet's quality and hence, lead to the financial system's instability in the long run.

On the other hand, to answer research question 2, the period is divided into pre- and post-IFSA 2013 to investigate the importance of IFSA policy on the Islamic

finance-growth nexus. In the presence of IFSA 2013, the results for pre- and post-IFSA 2013 for IB sector reveal that there is no evidence that IFSA 2013 could support the IB-growth nexus in the short run, but in the long run, there is evidence that IFSA 2013 could assist the Islamic banking sector to improve economic growth in Malaysia via its rules and regulations. This is supported by Hassan (2015) and Yusof et al. (2020), where they discovered that IFSA 2013 has improved and facilitated Islamic banks and economic development in Malaysia.

On the other hand, for ICM sector in the presence of IFSA 2013, the results depict that the SCS-growth nexus is enhanced by IFSA 2013 but that there is no evidence that IFSA 2013 could support the SCMC-growth nexus both in the short run and long run. This is due to the fact that IFSA is only introduced in the beginning of June 2013 and the grace period for compliance to IFSA are accorded. Effectively compliance to IFSA only starts on February 2014. Hence, it is rather limited from data perspective, especially for the analysis that is related to post IFSA period. Moreover, ICM is not directly regulated by IFSA 2013 but instead is regulated by CMSA 2007.

For Takaful sector, it is found that both variables of the Takaful industry, which are *AGT* and *AFT*, and real economic growth have a positive correlation at 1% significant level before the implementation of IFSA 2013. Meanwhile, after the implementation of IFSA 2013, *AGT* and *AFT*, and real economic growth have an insignificant positive correlation as it is rather limited from data perspective. This result is consistent with the theoretical studies of Trokic (2017), Belatik (2021), Nafti (2022), and Muhamat et al. (2022). This finding confirms that the IFSA 2013 could support inclusive growth in the financial system and economy and proves that regulation is very crucial to shape the economy and society, and ineffective regulation will impede development, as stated by Malyshev (2015).

As for the third objective, the results are classified into 4 themes. The first theme of the interview summarizes six significant points. Firstly, there is a need to add additional metrics such as CPI, HDI, *Zakat*, *Waqaf*, and poverty metrics to measure economic growth as the current metrics do not reflect a fair distribution amongst the society as they just measure the country's production. Secondly, they believe that the current Malaysian Islamic financial system is progressing really well is satisfying

Maqasid al-Shari'ah, especially with the application of VBI and ESG. Thirdly, they strongly agree that IFSA 2013 has brought the IF industry closer to Islamic values and will impact the economic growth in a positive way. Fourthly, the industry can grow further, according to them, if both practitioners and academicians have a mutual understanding to further reduce the tension that exists between them. Fifthly, they also state that the general public is still having a lack of understanding in Islamic economics as well as IF as a whole. Last but not least, they agree that Covid-19 has a big impact on IFIs, yet they are trying to help the economy via several methods such as the imposition of moratorium, *mysalaam*, and microtakaful products.

The second theme of the interview summarizes five important points. Firstly, all experts agree that although IB sector is gradually moving towards equity financing, it is still highly- dependent on debt-financing. Secondly, all experts except for Dr. Ahmed Firas, the Head of *Shari'ah* Department, HSBC Amanah Malaysia, agree that IB sector is actively participating in Islamic social finance. Meanwhile, Dr. Ahmed Firas believes that there is a need to establish other institutions that focus on the Islamic social finance as he opines that one should not commercialize things that should not be commercialized. Thirdly, they all believe that IB sector is gradually moving towards emphasizing the ESG objectives, and fourthly, IFSA 2013 is playing a significant role in stimulating the economic growth in Malaysia. Finally, they all agree that IB sector is currently including more social narratives.

The third theme of the interview highlights four significant points. Firstly, all experts agree that while IFSA 2013 is not meant to regulate the ICM in Malaysia, it does promote economic growth by ensuring stability in the market. Secondly, they agree that ICM is significantly contributing to the ESG via the implementation of SRI *Sukuk*, Bond Grant Scheme, ESG Financing/*Sukuk*, and value-based judgement projects. Thirdly, they believe that both IB and ICM sectors are significant and complementing each other as they play different roles in promoting Islamic economics. Finally, all experts agree that the current ICM is changing to include more social narratives that promote ESG objectives.

The final theme of the interview highlights four important points. Firstly, all experts agree that Takaful industry has contributed its own humble quota to economic

growth by creating jobs to the society and adding values to both participants and businesses. Secondly, they agree that IFSA 2013 has enabled the Takaful sector to contribute more to economic growth. Thirdly, they also agree that Takaful sector have a significant impact on ESG objectives. Finally, all experts agree that Takaful sector is now changing to include more social narratives, as mentioned by the Head of Corporate Planning & Strategy and Assistant Vice President of Etiqa, that creating awareness or educating the public through social narratives might bring a better impact to the community. It provides accurate social information in a reassuring way, which can be easily understood by the person it is written for. The aim is not to change a behaviour, but to allow the individuals to improve their understanding of an event or expectation, therefore leading to a more effective response to it.

The empirical findings are consistent with the findings from the in-depth interviews with seven experts in the IF industry, where it is found that IFSA 2013 does assist the IFIs to stimulate economic growth in Malaysia. The findings are also consistent with the previous literature on the IF-growth nexus, where IF and real economic growth are found to adhere to the supply-leading hypothesis (financial development leads to economic growth). Moreover, the results are also consistent with the previous literature on conventional studies, which includes Chistopoulos and Tsionas (2004), Khan et al. (2005), Khan and Qayyum (2006), Enisan and Egbetunde (2010), Nanthakumar et al. (2013), Narayan and Narayan (2013), Hsueh, Hu, and Tu (2013), Moyo (2018), Appiah et al. (2023), and Adedokun et al. (2023), who found evidence of the supply-leading hypothesis in the finance-growth nexus studies.

This finding proves that although Islamic finance is facing an identity crisis, it is gradually moving towards a betterment by progressing well to satisfy *Maqasid al-Shari'ah*. This study also contributes to the literatures by exploring the area that are lack of attention given by the previous literatures, which is Islamic capital market-growth nexus, Takaful-growth nexus, and the impact of IFSA 2013 on the IF-growth nexus. Table 6.1 illustrates the summary of the results and their consistency with the research objectives of the study.

Table 6.1 Summary of the Results and Consistency with Research Objectives of the Study

Research Objectives	Research Questions	Findings
To investigate the relationship of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs.	What is the relationship of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs?	• IB sector - It is found that the link between all of the IB variables, which are <i>IBD</i>, <i>IA</i>, <i>IBF</i>, and <i>IBA</i> and the real economic growth are positively significant in the short run. - It is found that the link between most of the IB variables, which are <i>IBD</i>, <i>IBF</i>, and <i>IBA</i> and the real economic growth are positively significant in the long run. - Hence, it can be concluded that IB is linked positively significant to the economic growth both in the short and long runs. • Islamic capital market - For the short-run analysis, it is found that the link between both <i>SCS</i> and <i>SCMC</i> and the real economic growth is positively significant. - For the long-run analysis, it is found that the link between <i>SCS</i> and the real economic growth is negatively significant, while the link between <i>SCMC</i> and the real economic growth is positively significant. • Takaful - It is found that both variables of the Takaful industry, which are <i>AGT</i> and <i>AFT</i>, are positively linked to the real economic growth significantly.
To analyze whether the introduction of IFSA 2013 has a significant effect on each of the three sectors of IF (IB, ICM and Takaful) in the short-run and long-run.	Has the introduction of IFSA 2013 had a significant effect on each of the three sectors of IF (IB, ICM and Takaful) in the short-run and long-run?	• IB sector - Pre-IFSA 2013: For the short-run analysis, it is found that the link between most of the IB variables, which are <i>IBD</i>, <i>IBF</i>, and <i>IBA</i>, and the real economic growth are positively significant. - For the long-run analysis, it is found that the link between <i>IA</i> and the real economic growth is negatively significant. - Post-IFSA 2013: For the short-run analysis, it is found that the link between <i>IBD</i> and <i>IBF</i>, and the real economic growth is positively significant. - For the long-run analysis, it is found that the link between all of the IB variables, which are <i>IBD</i>, <i>IBF</i>, and <i>IBA</i>, and the real economic growth is positively significant. - The results depict that there is no evidence that IFSA 2013 could support the IB-growth nexus in the short run, but in the long run, there is evidence that IFSA 2013 could assist the Islamic banking sector to improve economic growth in Malaysia via its rules and regulations. • Islamic capital market - Pre-IFSA 2013: For the short-run analysis, it is found that the link between <i>SCS</i> and <i>SCMC</i>, and the real economic growth are positively significant.

		- For the long-run analysis, it is found that the link between <i>SCMC</i> and the real economic growth is positively significant. - Post-IFSA 2013: For the short-run and long-run analysis, it is found that the link between <i>SCS</i> and the real economic growth is positively significant. - The results depict that the <i>SCS</i>-growth nexus is enhanced by IFSA 2013 but that there is no evidence that IFSA 2013 could support the <i>SCMC</i>-growth nexus both in the short run and long run. • Takaful - Before the Implementation of IFSA 2013: It is found that the Takaful variable, which is the combination of AGT and AFT variables are positively correlated to the real economic growth significantly. - After the Implementation of IFSA 2013: It is found that the Takaful variable, which is the separation of AGT and AFT variables are positively correlated to the real economic growth insignificantly.
To observe whether IF is fulfilling the goals of Islamic economics.	Does IF fulfil the goals of Islamic economics?	• Information on IF-Growth Nexus from the Perspective of Islamic Economics - Seven experts in the industry have shared their answers under this theme. - All experts agree that additional metrics to measure economic growth such as CPI, HDI, Zakat, Waqaf, and poverty metrics need to be considered as the current metrics do not reflect a fair distribution amongst the society. - All experts believe that the current Islamic financial system in Malaysia has progressed further in satisfying the Maqasid al-Shari'ah, especially with the implementation of VBI and ESG. - All experts believe that IFSA 2013 has brought the IF industry closer to Islamic values and will impact the economic growth in a positive way. - All experts believe that both practitioners and academicians should have a mutual understanding to further reduce the tension that exists between them, so that more significant contributions can be made to the industry. - All experts agree that the public is still having a lack of understanding in Islamic economics as well as IF as a whole. - Five of the experts have shared their opinions on the impact of Covid-19 on the economic growth. They agree that Covid-19 has a big impact on the IF industries as they are exposed to the market volatility. However, there are additional measures and resolutions announced by the IFIs to solve the issues. Moratorium, ta'widh, mysalam, microtakaful products, rebates, subsidies, and healthcare funds are some of the measures taken by the IFIs to help the economy bounces back from the crisis.

		• Information on the IB-Growth Nexus - Four experts in the industry have shared their answers under this theme. - All experts agree that although IB sector is gradually moving towards equity financing, it is still highly dependent on debt-financing. - All experts except for Dr. Ahmed Firas, the Head of Shari'ah Department, HSBC Amanah Malaysia, agree that IB sector is actively participating in Islamic social finance. - All experts believe that IB sector is gradually moving towards emphasizing the ESG objectives. - All experts believe that IFSA 2013 is playing a significant role in stimulating the economic growth in Malaysia. - All experts agree that IB sector is currently including more social narratives. • Information on the Islamic Capital Market-Growth Nexus - Three experts in the industry have shared their answers under this theme. - All experts agree that while IFSA 2013 is not meant to regulate the ICM in Malaysia, it does promote economic growth by ensuring stability in the market. - All experts agree that ICM is significantly contributing to the ESG via the implementation of SRI Sukuk, Bond Grant Scheme, ESG Financing/Sukuk, and value-based judgement projects. - They agree that both IB and ICM sectors are significant and complementing each other as they play different roles in promoting Islamic economics. - All experts agree that the current ICM is changing to include more social narratives that promote ESG objectives. • Information on the Takaful-Growth Nexus - 5 experts in the industry have shared their answers under this theme. - All experts agree that Takaful industry has contributed its own humble quota to economic growth by creating jobs to the society and adding values to both participants and businesses. - All experts agree that IFSA 2013 has enabled the Takaful sector to contribute more to economic growth. - All experts agree that Takaful sector have a significant impact on ESG objectives. - All experts agree that Takaful sector is now changing to include more social narratives.
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6.3 RECOMMENDATIONS

The results of this supply-leading association between IF and real economic growth confirm that Malaysia is on the right path to develop the Malaysian Islamic financial system. Besides, the results of the improvement of IF-growth nexus from pre-IFSA period to post-IFSA period reveal that the development of Malaysian Islamic financial system is well-supported by a well- developed regulatory framework that boost the economy. The findings also signify the significance of a refined and conducive regulatory and legal framework in supporting the Malaysian IF industry's transformation to become a global leader in the field. For the vital contribution of IFSA 2013 to the Malaysian Islamic financial system, it is recommended for policymakers to focus on implementing policies that can further develop the IF's abilities to enhance the economic growth.

For Islamic banking sector, the quantitative results show that IFSA 2013 does assist the IB sector to improve the economic growth in Malaysia in the long run. In addition, experts also agree that IFSA 2013 provides a good platform for further developing *Shari'ah*-compliant products especially under equity (risk-sharing). However, there are several recommendations to be considered to further develop IB sector. Firstly, IFSA 2013 alone is not enough, and other initiatives like VBI also need to be taken to further support IFSA 2013 in developing the IB sector and spurring the economic growth. Secondly, IB sector is still highly dependent on debt-financing, and more efforts are needed to push IB sector equity-based financing as there are currently lack of successful case studies on equity. Thirdly, besides encouraging IB sector to actively participate in Islamic social finance activities, it is time to grow other institutions that are mandated to focus on Islamic social finance. Fourthly, there has been too much focus on *Shari'ah* compliance, and rigorous efforts are needed to ensure transactions are more compliant with ESG objectives to support SDG. Last but not least, more efforts are needed to develop more socially adapted IB products.

For Islamic capital market sector, the quantitative results show that the SCS-growth nexus is enhanced by IFSA 2013 but that there is no evidence that IFSA 2013 could support the SCMC-growth nexus both in the short run and long run. While IFSA 2013 is not meant to regulate the ICM in Malaysia, experts agree that it does promote economic growth by ensuring stability in the market. However, there are several

recommendations to be considered to further develop ICM sector. Firstly, numerous studies are needed in terms of the application of the laws that regulate the ICM in Malaysia, which are the Capital Markets and Services Act 2007 and the Securities Commission Malaysia Act 1993 as well as numerous regulations issued pursuant to these laws, to see whether these acts are promoting the development of ICM and economic growth. Secondly, rigorous efforts are needed to ensure transactions are compliant with ESG objectives to support SDG as there has been too much focus on *Shari'ah* compliance. Last but not least, more efforts are needed to develop more socially adapted ICM products.

For Takaful sector, it is found that the Takaful sector is positively correlated to the real economic growth significantly pre IFSA 2013, but insignificantly post IFSA 2013. Section 286 of IFSA has stated that a 5-year transition period from the time that IFSA comes into effect is allowed. Hence, it is rather limited from data perspective, especially for the analysis that is related to post-IFSA period. Due to this limitation, the result for Takaful-growth nexus post- IFSA period is positive but not significant. Moreover, Umar Oseni, CEO of IILM has mentioned that although Takaful has not experienced significant growth globally unlike other sectors of the Islamic financial sector, it has contributed its own humble quota to economic growth of the country especially from the perspective of product structure of Takaful as compared to the conventional insurance product.

Several recommendations need to be considered to further develop Takaful sector and economic growth especially for post IFSA 2013. Firstly, due to the limitation of data, studies on this area need to be continued to track the progress of Takaful-growth nexus. Secondly, rigorous efforts and more studies need to be conducted on issues regarding the actual implementation of IFSA 2013 on Takaful sector to offer rooms for improvement as according to Hasan (2015), the strict IFSA standards will undoubtedly have an impact on operating expenses in Takaful as a whole and will unquestionably put Takaful operators at a disadvantage as compared to their conventional competitors, which must not be an excuse for Takaful sector to move forward. Last but not least, more efforts need to be done to develop more socially- adapted Takaful products as well as to ensure the transactions are compliant to ESG objectives to support SDG as Jamil and Jamal (2016) stated that it is still unclear if IFSA 2013 would inspire Takaful

operators to carry on and assume greater social and religious obligations despite the increased operating costs brought on by IFSA 2013.

The outcome of this study may also shed some light on the need for policies in Islamic economy. The outcome from the qualitative analysis shows that GDP alone is not enough to measure the economic growth. This is because GDP is just measuring the country's production, not the society's wellbeing. A high GDP does not mean that the society is doing well. For instance, a company with a high production and profit may not necessarily reflect that it is a good company as it may have issues like a working labour abuse. In example, although the production of a company's increases, while there is a working labour abuse happens in the company, it is morally questionable and violate the principle of *Maqasid Shari'ah*. With the implementation of VBI and ESG to further enhance the social needs in the economy, experts suggest for additional measures besides GDP to measure economic growth such as CPI, HDI, *Zakat*, *Waqaf*, and poverty metrics as also mentioned by Kapoor and Debroy (2019).

Furthermore, the qualitative outcomes of the study also show that there is a need for collaboration at all levels from government, neighbouring states, industries, academia, non- governmental organizations (NGOs), and general public to further grow the IF and economics industry. Differences in opinions especially amongst practitioners and academicians or in other words, mainstreamist and structuralist need to be handle professionally by be more understanding towards each other to prevent any meaningless issues so that more significant projects to further develop the nation can be established. On top of that, there is a need for more Islamic financial and economics literacy and education to be spearheaded by the regulator and the financial institutions. For instance, the public generally despise the alcohol and pork more than *riba*, but as a matter of fact, the fear of *riba* must be on par with the fear of alcohol and pork. Other stakeholders can be the Islamic religious council through the well-coordinated Friday sermons as well as inclusion of such subjects in the school curriculum of students in secondary schools.

6.4 LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study acknowledges several limitations that exist in the findings. Firstly, this

research is confined to three major sectors of Islamic financial system. Secondly, the study notes that the introduction of IFSA can post a significant impact to IF-growth nexus. However, IFSA is only introduced in the beginning of June 2013 and the grace period for compliance to IFSA are accorded. Effectively compliance to IFSA especially with respect to the definition of deposit and investment only starts on July 2015. Hence, it is rather limited from data perspective, especially for the analysis that is related to post IFSA period. Thirdly, this study is also confined to IF practice in Malaysia, and hence, further research with a larger sample size, which includes other countries, should be done in order for the results to be generalized to the whole system.

Moreover, further research should also be developed on IF issues like developing and focusing more on socially adapted IF products, equity financing, Islamic social finance institutions, public literacy, and education, as well as collaborations and improvisation of policy to further develop Islamic finance, according to *Maqasid al-Shari'ah*. Rosenthal (1967) stated that the focus of Ibn Khaldun's theory of development analysis is the human being because the fall and rise of a civilization is strictly dependent on the misery or well-being of the people. Hence, further research should focus more on wealth distribution than wealth accumulation, as the State of Global Islamic Economy Report (2022) showed that although Malaysia is doing well in terms of IF development, it is still not at the forefront in terms of societal contributions, which is in line with the findings of this study.

6.5 CONCLUSION

This chapter has provided the summary of the results, which is elaborated in detail in Chapter 5. Then, several recommendations are provided, following the summary of the results. Finally, this chapter ends with the illustration of limitations of the research and suggestions for future research.

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APPENDIX I

A.1 SUMMARY OF QUANTITATIVE STUDIES ON IB-GROWTH NEXUS

No	Authors	Year of Publish	Objective of Study	Period of Study	Method	Variables	Discussion on Findings/Remrks
1	Seung Beom Koh	1995	To examine the link between financial development and economic growth of Korea and Chile.	1960-1991	Cross-country regression and time-series analyses	Dependent variable: Average growth rate of per capita GDP Independent variables: - Financial development: 1. The ratio of liquid liabilities of the financial sector to GDP 2. The ratio of deposit money bank domestic assets to deposit money bank domestic assets plus central bank domestic assets 3. The ratio of claims on the nonfinancial private sector to total domestic credit 4. The ratio of claims on the nonfinancial private sector to GDP - Control variables: 1. Investment share of GDP 2. Log of secondary school enrolment rate in 1960 3. Log of real GDP 1950-1959	In Korea and Chile, it is found that there is no positive link between financial development and economic growth.

2	Ghassan Farhan Ifram	1997	To analyse the relationship between financial development and economic growth in Jordan.	1964-1994	Granger Causality Test		It is found that financial development Granger-causes growth.
3	Chia-Hsin Hu	2003	To study the connection between banking development, stock market development, and economic growth in Taiwan.	1976-1998	Granger Causality Test	Dependent variable: Real GDP per capita Independent variables: - Financial development: 1. Financial depth ratio (M2 currency/GDP) 2. Deposit money banks' private claims over GDP 3. Total value of stocks traded over GDP (Value Traded Ratio) 4. Total value traded over total market capitalization - Control variables: 1. Financial repression index using first principal component 2. Spread between accommodation rates to indicate the depth and extent of the selective credit control	Taiwanese financial repressionist policies are found to have no effect on economic development, as measured by an index of six distinct financial policies. However, it has been shown that the directed credit scheme, which distributed cash to favoured industries, has a detrimental influence on economic growth.
4	Patrick Honohan	2004	To review the literature's evolution on the relationship between financial development, economic growth and poverty.	1950 -2000	Cross-country specific studies	Vary depends on the studies.	After controlling for mean income and inequality, financial depth is found to be negatively related to headcount poverty.

5	Mohammed G. Al-Tammam	2005	To investigate the short-run and the long-run relationship and causality between financial development and economic growth in Kuwait, Oman and Saudi Arabia.	1970-1999	OLS estimation, Johansen multivariate cointegration technique, and Granger causality within the error-correction mechanism (ECM)	Dependent variable: Non-oil real GDP growth rate & the level of real GDP Independent variables: - Financial development: 1. Ratio of some broad measure of the money stock to the level of nominal income (M2) 2. Private sector credit ratio 3. The ratio of bank deposit liabilities to GDP - Control variables: 1. Trade openness 2. Government consumption expenditure 3. Inflation 4. Gross fixed capital formation 5. Annual growth rate of the total labor force	1) OLS regressions' findings found that the link between financial development indicators and economic growth is negative in Kuwait, while positive in Saudi Arabia and Oman. 2) Cointegration test's results revealed that there is a long-run relationship between the financial development indicators and economic growth in Saudi Arabia and Oman, but not in Kuwait. 3) ECM's results suggested that in the case of Kuwait, the short-run causality is running from economic growth to financial development in Kuwait, while it is vice versa for Saudi Arabia and Oman.
6	Hafas Furqani and Ratna Mulyany	2009	To see whether the IB system influences growth in Malaysia.	1997Q1 to 2005Q4	Cointegration Test and Vector Error Model	Dependent variable: real GDP per capita Independent variables: - Financial development: 1. Total Islamic bank financing - Control variables: 1. Fixed investment 2. Trade activities	It is found that only fixed investment granger causes Islamic bank in the short-run, whereas in the long-run, Islamic bank and real GDP is found to support the "demand-following" hypothesis of GDP.

7	Juzhong Zhuang, Herath Gunatilake, Yoko Niimi, Muhammad Ehsan Khan, Yi Jiang, Rana Hasan, Niny Khor, Anneli S. Lagman-Martin, Pamela Bracey, and Biao Huang	2009	To review the theoretical and empirical literatures on the financial sector development' roles on economic growth and poverty reduction.	1960-2000	Cross-country and country-specific studies	Vary depends on the studies.	There were convincing arguments from numerous literatures that financial sector development has a vital role spurring economic growth and poverty reduction.
8	Omolola Ogunremi	2010	To examine the impact of financial development on economic growth in developing countries in Asia and Africa.	1988-2007	GLS, GMM, Time-series cointegration and Unit Root tests for robustness	Dependent variable: real GDP per capita growth rate Independent variables: - Financial development: 1. Insurance sector 2. Value of stock traded 3. Market capitalization over GDP 4. Bank's liquid liabilities to GDP 5. Domestic credit to private sector -Control variables: 1. Productivity measure of GDP/labor force 2. Trade openness 3. External debt 4. Inflation 5. Gross fixed capital formation 6. Government Spending	The study indicated that financial development and economic growth have a bi-directional causal relationship. It also indicated that the insurance business, like the banking and stock market industries, contributes to economic growth. Furthermore, the study found that Asian economies have more developed financial superstructures than African economies, and that these financial superstructures, as represented by the banking, stock market, and insurance sectors, contributed more to economic growth in Asian economies than in African economies, resulting in Asian economies having a comparatively higher growth potential.

9	Mohamed Goaid and Seifallah Sassi	2010	To empirically investigate the link between financial development including Islamic financial development and economic growth in several MENA countries.	1962 -2006 (Vary by country)	GMM estimation of a dynamic panel model	Dependent variable: GDP per capita growth rate Independent variables: - Financial development: 1. Bank's liquid liabilities 2. Total value of loans (credit granted to private sector) -Control variables: 1. Trade openness 2. Inflation 3. Government consumption	It is found that the link between banking and economic growth is not significant and weak.
10	Muhamad Abduh and Mohd Azmi Omar	2012	To examine the link between Indonesian IB development and economic growth both in short- and long-runs	2003Q1-2010Q2	ARDL method of cointegration	Dependent variable: GDP and gross fixed capital formation Independent variables: - Financial development: 1. IB total financing	It is found that the link between IB and economic growth is significant and they have a bi-directional relationship in both short- and long-runs.
11	Muhamad Abduh and Nazreen T. Chowdhury	2012	To examine IB-growth nexus in Bangladesh.	2004Q1-2011Q2	Cointegration and Granger's causality method	Dependent variable: Real GDP Independent variables: - Financial development: 1. IB total financing 2. IB total deposits	It is found that the link between Islamic bank and economic growth is positive and significant both in the short- and long- runs.
12	G.L Sharma and Himanshu Puri	2013	To investigate the relationship between microfinance and economic growth in India.	2006-2012	Correlation and regression analysis	Dependent variable: GDP Independent variables: - Financial development: 1. Total micro-loans to Self Help Groups (SHG)	It is found that microfinance sector strongly affects the economic growth in India.

13	Rihab Grassa and Kaouthar Gazdar	2014	To compare the impacts of Islamic financial development and conventional financial development on the economic growth of Bahrain, Kuwait, Qatar, Saudi Arabia, and UAE.	1996- 2011	OLS, Generalized least squares, and panel data frameworks	Dependent variable: Real GDP per capita growth rate Independent variables: - Financial development: 1. Conventional deposit money bank 2. Private credit given by conventional banks 3. Islamic deposit money bank 4. Private credit given by Islamic banks 5. Total sukuk issued to GDP -Control variables: 1. Trade openness 2. Macroeconomic stability	It is found that IF affects the growth significantly positive in the five GCC countries but there is no significant link observed between conventional financial development and economic growth.
14	Muhammad Yusuf Dandume	2014	To investigate the causal link between financial sector development, economic growth, and poverty reduction in Nigeria.	1970-2011	ARDL	Dependent variable: GDP Independent variables: - Financial development: 1. Financial depth 2. Poverty rate -Control variables: 1. Real interest rate 2. Total value of export and import	It is found that the economic growth causes financial sector development, but the financial sector development does not lead to poverty reduction.

15	Ficawoyi K. Donou-Adonsou	2014	To study the link between financial development (bank and microfinance) and poverty reduction.	2002-2011	GMM	Dependent variable: GDP Independent variables: - Financial development: 1. Banks' private credit to GDP 2. Debt to equity ratio 3. Deposit to GDP 4. Microfinance credit (gross loan portfolio) -Control variables: 1. Education 2. Investment 3. Trade openness 4. Government expenditures 5. Inflation	With some income level to expand its activities, it is found that microfinance reduces poverty better than banks in most cases. However, there is no strong evidence that the whole financial system reduces poverty compared to an individual financial institution.
16	Mosab I. Tabash and Raj S. Dhankar	2014	To investigate the link between the Islamic financial development and economic growth in the UAE.	1990-2010	Unit Root Test, Cointegration Test and Granger Causality Test	Dependent variable: Real GDP and gross fixed capital formation Independent variables: - Financial development: 1. Total IB financing	It is found that the link between IB financing and economic growth in UAE is positively significant, in which the direction is running from IB financing to economic growth, supporting the Schumpeter's supply leading theory.

17	M. Shabri Abd. Majid and Salina Kassim	2015	To investigate the link between IB and finance (IBF) and economic growth in Malaysia.	1997Q3-2009Q2	ARDL, VECM and variance decompositions (VDCs)	Dependent variable: Real GDP Independent variables: - Financial development: 1. Ratio of total Islamic deposits to nominal GDP 2. Ratio of total Islamic financing to nominal GDP 3. Malaysia's Dow Jones Islamic Stock Index -Control variables: 1. Consumer price index 2. Ratio of total imports and exports to nominal GDP	It is found that IB and finance (IBF) significantly affects the Malaysian economic growth, where the direction is running from IBF to economic growth, supporting the "supply-leading" hypothesis.
18	Salina Kassim	2016	To examine the impact of IF to the real economy of Malaysia.	1998- 2013	ARDL Approach on quarterly data set	Dependent variable: Industrial production index Independent variables: - Financial development: 1. Total IB deposits 2. Total IB financing -Control variables: 1. Gross fixed capital formation 2. General government expenditure 3. Trade openness 4. Inflation	IF is found to have a positive significant relationship on the Malaysian real economy.
19	Md Hakim Ali and Md Akhter Uddin	2016	To investigate the link between IB financing and economic growth in Malaysia.	2006- 2014	ARDL, VECM and VDCs	Dependent variable: GDP Independent variables: - Financial development: 1. Total IB financing -Control variables: 1. Gross fixed capital formation 2. Consumer price index	Economic growth is found to have a positive significant impact on the IB development in Malaysia, supporting the "demand-following" hypothesis.

20	M. Shabri Abd. Majid, Sovia Dewi, Aliasuddin and Salina Kassim	2017	To study the link between financial development, economic growth, and poverty reduction in Indonesia.	1980- 2014	ARDL and VECM	Dependent variable: GDP Independent variables: - Financial development: 1. Money supply 2. Ratio of domestic credit to private sector to GDP - Poverty variable: 1. Household consumption expenditure per capita	It is found that there is a bi-directional causal relationship between the financial sector and poverty in the short run. In addition, there is a significant relationship between the financial sector, economic growth, and poverty reduction in Indonesia in long-run.
21	Sovia Dewi, M Shabri Abd. Majid, Aliasuddin, Salina Kassim	2018	To examine the link between financial sector development and poverty reduction in Indonesia.	1980-2015	ARDL	Dependent variable: GDP per capita Independent variables: - Financial development: 1. Money supply 2. Ratio of domestic credit to private sector to GDP - Poverty variable: 1. Household consumption expenditure per capita	It is found that there is a bidirectional causality between economic growth and poverty reduction, and a unidirectional causality running from the financial sector to poverty reduction.
22	Huma Nawaz, Maira Abrar, Asma Salman, Syed Muhammad Hassan Bukhar	2019	To study the impact of IF on economic growth in Pakistan.	2005-2013	Granger Causality Test	Dependent variable: GDP per capita Independent variables: - Financial development: 1. Total Islamic financing 2. Total Islamic financial assets - Control variables: 1. Population 2. Total investment	It is found that a good and stable Islamic financial system promotes economic growth in Pakistan, and there is a bidirectional link between population and total Islamic financing.

23	Ryanda Al Fathan, Tika Arundina	2019	To study the link between IF development and economic growth in Indonesia.	2002Q3-2017Q4	VAR and Granger Causality Test	Dependent variable: Real GDP per capita Independent variables: - Financial development: 1. Total Islamic bank financing 2. Total market capitalization 3. Total value of traded stock 4. Total value of Sukuk outstanding	It is found that sukuk market development supports the supply-leading hypothesis, while IB development and ICM development support the neutrality hypothesis.
24	Kaouthar Gazdar, M. Kabir Hassan, M. Faisal Safa, Rihab Grassa	2019	To investigate the link between oil price volatility, Islamic financial development and economic growth in GCC countries.	1996-2016	Panel data random effect	Dependent variable: Real GDP per capita, Non-oil GDP growth Independent variables: - Financial development: 1. Islamic financial depth (financial intermediary credit to private sector to GDP ratio) 2. Islamic financial concentration (IB assets to total banking assets ratio) 3. Oil terms of trade growth volatility - Control variables: 1. Trade openness 2. Government consumption 3. Inflation 4. Interest rate 5. Conventional finance depth & concentration	It is found that the Islamic financial system reinforces the effect of oil terms of trade growth volatility on economic growth in GCC countries.

25	Walid Mensi, Shawkat Hammoudeh, Aviral Kumar Tiwari, Khamis Hamed Al-Yahyaee	2020	To study the nonlinear link between IB development, major macroeconomic variables and economic growth in 16 Islamic countries (MENA and non-MENA regions).	1994-2014	Panel smooth transition model	Dependent variable: GDP per capita growth rate Independent variables: - Financial development: 1. Islamic bank total assets-to-GDP ratio 2. Islamic bank total deposits-to-GDP ratio 3. Islamic bank loans-to-GDP ratio 4. Islamic bank net loans-to-GDP ratio - Control variables: 1. Trade openness 2. Government consumption 3. Inflation 4. Foreign direct investment 5. Education 6. Rule of law 7. Terms of trade 8. Oil production	It is shown that IB variables lead to the economic growth across the quantiles for many cases.
26	Khemaies Bougatef, Mohamed Sahbi Nakhli and Othman Mnari	2020	To examine the link between IB development and industrial production in Malaysia.	2010-2018 (monthly)	ARDL and Toda and Yamamoto Causality Test	Dependent variable: Industrial production index Independent variables: - Financial development: 1. Total IB financing (Profit Loss Sharing (PLS) and non-PLS based contracts) - Control variables: 1. Consumer price index 2. The value of exports	It is found that IB affects the economic growth positively significant through non-PLS financings both in short- and long-runs.

27	Nurul Afidah Muhamad Yusof and Lee Chee Loong	2020	To investigate the link between IB and economic growth Pre and Post regulatory reform (IFSA 2013) in Malaysia.	2004Q1- 2018Q4	ARDL	Dependent variable: GDP Independent variables: - Financial development: 1. Total IB deposits - Control variables: 1. Gross fixed capital formation 2. Trade openness 3. Consumer price index 4. General government expenditure	It is found that the IB-growth nexus has improved from pre-IFSA 2013 to post-IFSA 2013 period.
28	Mohammed Ayoub Ledhem and Warda Moussaoui	2021	To examine the link between IF via business activities and economic growth in Malaysia.	2014Q1- 2019Q3	VAR Granger causality and non-parametric analysis	Dependent variable: GDP Independent variables: - Financial development: 1. Total IB financings for entrepreneurship activities - Control variables: 1. Gross fixed capital formation 2. Trade openness 3. Consumer price index	It is found that IF is a significant contributor to economic growth in Malaysia via entrepreneurial activities such as SMEs.
29	Mohammed Ayoub Ledhem and Mohammed Mekidiche	2021	To investigate the IF-growth nexus in Southeast Asia.	20143Q4- 2019Q	GMM	Dependent variable: GDP Independent variables: - Financial development: 1. Total IB financings - Control variables: 1. Gross fixed capital formation 2. Trade openness 3. Consumer price index	It is found that IF is a significant contributor to economic growth in Southeast Asia.

30	Ibrahim Musa Gani and Zakaria Bahari	2021	To examine IF's contribution on economic growth in Malaysia.	1998-2017	ARDL	Dependent variable: GDP Independent variables: - Financial development: 1. Total IB financing 2. Total IB deposits - Control variables: 1. Gross fixed capital formation 2. Total factor productivity 3. Government expenditure 4. Inflation	It is shown that the link between IF and economic growth in Malaysia is not significant in the short-run, but it is significant in the long-run, where the causality's direction is bidirectional between IB deposits and economic growth.
31	Syeda Arooz Naz and Saqib Gulzar	2022	To empirically examine the effect of IF, which include IB and bonds on economic growth of Muslim countries.	1995- 2022	PMG of the framework of ARDL	Dependent variable: Real GDP Independent variables: - Financial development: 1. Total IB financing 2. Total IB assets 3. Total value of sukuk issued	It is shown that Islamic bonds, IB financing, and IB assets are significantly correlated with real GDP in all Muslim countries.
32	Ali Bamba Youssouf and Mostafa El Hachloufi	2022	To empirically examine the link between IF and economic growth in eight countries of the West African.	1990-2019	GMM	Dependent variable: Real GDP Independent variables: - Financial development: 1. Private sector's credits granted 2. Total IB financing 3. Total IB assets - Control variables: 1. Public expenditure 2. Trade openness 3. Inflation rate 4. Enrolment rate of primary school students	It is shown Islamic financial system and economic growth in the West African countries are negatively correlated.

A.2 SUMMARY OF QUANTITATIVE STUDIES ON ISLAMIC CAPITAL MARKET-GROWTH NEXUS

No	Authors	Year of Publish	Objective of Study	Period of Study	Method	Variables	Discussion on Findings/Remarks
1	Campbell R. Harvey	1989	To utilize the bond and stock markets in forecasting economic growth.	1953-1989	Panel data regression	Dependent variable: GNP real growth rate Independent variables: - Capital Market: 1. Stock returns 2. Yield spread	For the third quarter of 1989 through the third quarter of 1990, a yield-based projection indicated a slowdown of economic growth, but not negative or zero growth.
2	Ross Levine & Sara Zervos	1996	To empirically investigate whether there is a strong link between stock market development and long-run economic growth.	1976-1993	Cross-country growth regression	Dependent variable: Real GDP per capita Independent variables: - Capital Market: 1. Market capitalization ratio (Value of listed shares divided by GDP) 2. Total value traded ratio 3. Turnover ratio 4. IAPM pricing error measure of stock market integration - Control variables: 1. Secondary school enrollment rate 2. Number of revolutions and coups 3. Government consumption expenditure 4. Inflation rate 5. Black market exchange rate premium 6. Financial depth	It is shown that stock market development is positively related to the long-run economic growth.

3	Hamid Mohtadi & Sumit Agarwal	2001	To study the link between stock market development and economic growth for in 21 developing countries.	1977-1997	Dynamic panel method	Dependent variable: Real GDP per capita Independent variables: - Capital Market: 1. Market capitalization ratio 2. Total value of shares traded ratio 3. Turnover ratio - Control variables: 1. Secondary school enrollment rate 2. Foreign direct investment 3. Investment	It is shown that stock market development is positively related to the long-run economic growth.
4	Philip Arestis, Panicos O. Demetriades & Kul B. Luintel	2001	To study the link between stock market development and economic growth by controlling stock market volatility's and banking system's effects.	1986-1993	Cross-country regression and time series methods	Dependent variable: Real GDP Independent variables: - Capital Market: 1. Market capitalization ratio - Control variables: 1. Ratio of domestic bank credit to nominal GDP 2. Changes of stock market prices	It is shown that banking system is promoting economic growth strongerly as compared to stock market.

5	Thorsten Beck & Ross Levine	2002	To study the impact of banks and stock markets on economic growth using a panel data set in 42 countries.	1976-1998	GMM techniques	Dependent variable: Industry and establishment growth Independent variables: - Capital Market and Banking System: 1. Private credit (the value of credits by financial intermediaries to the private sector divided by GDP) 2. Total sum of private credit and market capitalization. 3. Judicial efficiency - Control variables: 1. External dependence 2. Labor intensity 3. R&D intensity	The results showed that both stock markets and banks positively influence economic growth
6	Guglielmo Maria Caporale, Peter G. A Howells & Alaa M. Soliman	2004	To investigate the causal relationship between financial development and stock market development and economic growth in Chile, Argentina, Greece, Malaysia, Korea, Portugal, and Philippines.	1977Q1 - 1998Q4	Toda Yamamoto Causality Test	Dependent variable: GDP Independent variables: - Capital Market, Insurance, and Banking System: 1. Market capitalization ratio 2. The value traded ratio 3. Bank deposit liabilities to nominal GDP 4. Ratio of bank claims on the private sector to nominal GDP	It is shown that stock market development positively affects the long-run economic growth

7	Tan Khay Boon	2005	To investigate the link between banking, insurance and stock markets and economic growth in Singapore.	1985-2002	Granger Causality Test	Dependent variable: Real GDP Independent variables: - Capital Market and Banking System: 1. Ratio of commercial bank loans to nominal GDP 2. Ratio of market capitalization of the stock market to nominal GDP 3. insurance funds - Control variables: 1. Gross fixed capital formation	It is shown that the banking system is supporting demand-following hypothesis while the insurance market is supporting the supply-leading hypothesis. In addition, the stock market is following the demand-following hypothesis in the short run and supply-leading hypothesis in the long run.
8	Soumya Guha Deb & Jaydeep Mukherjee	2008	To observe the causal link between stock market development and economic growth in India.	1996Q4 – 2007Q1	Granger Causality Test and Toda Yamamoto Causality Test	Dependent variable: Real GDP Independent variables: - Capital Market: 1. Real market capitalization ratio 2. Real value traded ratio 3. BSE Sensex (as a proxy of Indian stock market volatility)	The results showed that there is strong causal flow from the stock market development to economic growth, which supports the supply-leading hypothesis.
9	Ake Boubakari & Dehuan Jin	2010	To examine the causal link between stock market and economic growth in 5 Euronext countries (France, Belgium, United Kingdom, and Portugal, Netherlands).	1995-2008	Granger Causality Test	Dependent variable: GDP and foreign direct investment (FDI) Independent variables: - Capital Market: 1. Market capitalization 2. Total traded value 3. Turnover ratio	It is shown that there is a positive link between the stock market and economic growth in countries in which the stock market is highly active and liquid (United Kingdom and France). The causality relationship however is rejected for the other countries because their stock markets are small and less liquid.

10	Daoud Ben Jedidia Khoutem	2014	This study is the first attempt to examine the link between the Islamic banks-Sukuk markets and economic growth in Tunisia (theoretically).	After the revolution of 2011	This paper reviews the existing dominance of Islamic banks in the saving-investment process and contrasts it to a situation that is characterized by a greater implication of banks in the Sukuk markets, both as issuers and purchasers.	N/A	This research concluded that "marketable Islamic intermediation" generates additional funds to support economic growth and tackle the issues of poverty and unemployment. It also demonstrated that the Islamic intermediation may be enhanced by a greater involvement of banks in the sukuk markets. This enabled numerous difficulties that are associated with saving mobilization, bank liquidity management, risk taking, and long-term investment to be solved.
11	Abdelghani Echchabi , Hassanuddeen Abd. Aziz & Umar Idriss	2016	To examine the link between sukuk issuance and economic growth in GCC countries, Malaysia, Turkey, Indonesia, Pakistan, China, Singapore, Brunei, Germany, Kazakhstan, United Kingdom (UK), France, and Gambia.	2005-2012	Toda and Yamamoto Granger Non-Causality test	Dependent variable: GDP, gross capital formation and trade activities (total values of imports and exports as a percentage of GDP) Independent variables: - Capital Market: 1. Volume of sukuk issuance	It is shown that sukuk has a positive impact on the economic growth when all countries are pulled together.

12	Abdelghani Echchabi , Hassanuddeen Abd. Aziz & Umar Idriss	2016	To examine the link between sukuk issuance and economic growth in GCC countries.	2005-2012	Toda and Yamamoto Granger Non-Causality test	Dependent variable: GDP, gross capital formation and trade activities (total values of imports and exports as a percentage of GDP) Independent variables: - Capital Market: 1. Volume of sukuk issuance	It is shown that sukuk issuance has no impact on the economic growth of GCC countries.
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13	Houcem Smaoui & Salem Nechi	2017	To study the impact of sukuk issuances on economic growth in 18 countries, which include Bahrain, Brunei, Bangladesh, Gambia, Indoneisa, Hong Kong, Kuwait, Malaysia, Luxemborg, Pakistan, Qatar, Oman, Turkey, Saudi Arabia, Yemen, Switzerland, UAE, and Singapore.	1995–2015	GMM	Dependent variable: Real GDP Independent variables: - Capital Market and Banking System: 1. Sukuk market capitalization to GDP 2. Number of sukuk issuances 3. Sovereign sukuk market capitalization to GDP 4. Corporate sukuk market capitalization to GDP 5. Turnover ratio 6. Total value traded over GDP 7. Credit to private sector by commercial banks to GDP 8. Ratio of bond market capitalization to GDP 9. Ratio of oil revenues to GDP - Control variables: 1. Primary school enrollment rate 2. Consumer price index 3. Ratio of government consumption to GDP 4. Trade openness 5. Institutions' law and order	It is shown that sukuk issuance has a positive impact on economic growth even after controlling other measure of financial development.
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14	Abayomi A. Alawode	2017	To theoretically examine the role of ICM in economic growth.	2007-2017	Reviews of other works	N/A	It is argued that ICM promotes economic growth.
15	Siti Aisyah Mustafa, Roslily Ramlee & Salina Kassim	2017	To investigate the link between Islamic stock market and economic forces in Malaysia.	2007-2014	ARDL and VECM	Dependent variable: Malaysia Emas <i>Shari'ah</i> Index (FBMESI) as a proxy for Islamic stock returns. Independent variables: - Macroeconomic variables: 1. Money supply 2. Industrial production index 3. Consumer price index 4. Islamic interbank rate 5. Real effective exchange rate 6. Federal funds rate	It is shown that majority of the macroeconomic variables are related to the Islamic stock price significantly in long run.
16	Novita Sari, Syamsurijal AK, & Marlina Widiyanti	2018	To investigate the impact of ICM development on economic growth in Indonesia.	2011-2017	Cointegration Test and Error Correction Model (ECM)	Dependent variable: GDP Independent variables: - Capital market: 1. Jakarta Islamic index 2. Sukuk issuances 3. Net asset value of Islamic mutual funds	It is shown that ICM has a positive impact on economic growth in Indonesia both in short- and long-runs.

17	Lan Khanh Chu	2019	To investigate the link between financial structure and economic growth over 99 countries.	1971-2015	GMM	Dependent variable: Real GDP per capita growth rate Independent variables: - Capital market: 1. Financial structure's size 2. Financial structure's activity 3. Financial structure's efficiency - Control variables: 1. Government consumption 2. Trade openness 3. Average years of schooling 4. Inflation rate	It is shown that the nexus of financial structure and economic growth supports the market-based view.
18	Harjum Muharam, Resi Junita Anwar & Robiyanto Robiyanto	2019	To investigate the link between sukuk market development, Islamic stock market and economic growth in Malaysia and Indonesia.	2008-2017	VAR, VECM & Granger Causality test	Dependent variable: GDP Independent variables: - Capital market: 1. Islamic stock market capitalization 2. Outstanding corporation sukuk 3. Trade openness	It is shown that there is a bi-directional causality between the Islamic stock market development and sukuk market with economic growth in Indonesia, while there is a unidirectional causality between economic growth and the sukuk market development in Malaysia, plus there is no causality found between the Islamic stock market development and economic growth in Malaysia.

19	Gani Ibrahim Musa, Zakaria Bahari & Azreen Hamiza Abdul Aziz	2020	To investigate the impact of ICM on the real economy of Malaysia.	1998Q1-2017Q4	ARDL	Dependent variable: GDP Independent variables: - Capital market: 1. Total ICM capitalization 2. Islamic stock market turnover - Control variables: 1. Gross fixed capital formation 2. Ration of output 3. Government expenditure 4. Inflation rate	It is shown that ICM has a positive impact on the Malaysian real economy through the focus on equity-based financing.
20	Yan-Ling Tan and Roslina Mohamad Shafi	2021	To investigate the impact of ICM on economic growth in Malaysia.	1998-2018	ARDL	Dependent variable: Real GDP per capita Independent variables: - Capital market: 1. Sukuk 2. Conventional bonds 3. Total conventional bonds and sukuk 4. Stock market capitalization 5. Total stock market turnover - Control variables: 1. Real savings 2. Employment growth rate	It is shown that ICM affects the Malaysian economic growth positively in the long run.

21	Syeda Arooz Naz and Saqib Gulzar	2022	To empirically examine the effect of IF, which include IB and bonds on economic growth of Muslim countries.	1995- 2022	PMG of the framework of ARDL	Dependent variable: Real GDP Independent variables: - Financial development: 1. Total IB financing 2. Total IB assets 3. Total value of sukuk issued	It is shown that Islamic bonds, IB financing, and IB assets are significantly correlated with real GDP in all Muslim countries.
22	Devi Yani, Early Ridho Kismawadi, Ismail Fahmi Ar Rauf Nasution, and M. Irvanni Bahri	2022	To empirically investigate the link between ICM and economic growth in Indonesia.	2016-2021	Regression Analysis (SPSS)	Dependent variable: GDP Independent variables: - Financial development: 1. Total <i>Shari'ah</i> shares 2. <i>Sukuk</i> 3. Islamic mutual funds 4. Exchange rates	It is shown that ICM impacts the economic growth in Indonesia significantly positive.

A.3 SUMMARY OF QUANTITATIVE STUDIES ON TAKAFUL-GROWTH NEXUS

No	Authors	Year of Publish	Objective of Study	Period of Study	Method	Variables	Discussion on Findings/Remarks
1	Maurice Kugler and Reza Ofoghi	2005	To investigate the impact of insurance on the UK economic growth.	1971-2003	Granger causality test	Dependent variable: Real GDP Independent variables: - Insurance/Takaful market: 1. General insurance premiums 2. Long-term insurance premiums	The results showed that insurance has a positive impact on the UK long-run economic growth.

2	Peter Haiss & Kjell Sumegi	2008	To examine the impact of insurance on economic growth in Europe.	1992-2005	Cross-country panel data analysis	Dependent variable: GDP Independent variables: - Insurance/Takaful market: 1. Life-insurance premium income 2. Non-life premium income 3. Total net insurance investments -Control variables: 1. Real physical capital stock at constant year 2000 prices 2. Weighted employee education figures 3. R&D expenditure 4. Interest rate 5. Inflation rate	The results showed that insurance has a positive impact on the economic growth of Europe.
3	Marijana Ćurak, Sandra Lončar & Klime Poposki	2009	To investigate empirically the link between insurance industry and economic growth in 10 transition countries (European Union member).	1992-2007	Fixed-effects panel model	Dependent variable: GDP growth and GDP per capita Independent variables: - Insurance/Takaful market: 1. Life-insurance premium income 2. Non-life premium income 3. Total insurance premium -Control variables: 1. Private credit 2. Stock capitalization 3. Investment 4. Trade openness 5. Education	The results showed that insurance has a positive impact on the economic growth of 10 transition countries.

4	Liyan Hana, Donghui Lib, Fariborz Moshirianb & Yanhui Tian	2010	To explore the link between insurance and economic growth of 77 countries.	1994- 2005	GMM models on a dynamic panel data set	Dependent variable: GDP per capita Independent variables: - Insurance/Takaful market: 1. Annual premium payments over population (Life, Non- life, and total) -Control variables: 1. Tertiary education 2. Inflation rate 3. Trade balance 4. Gross fixed assets investment	It is shown that insurance has a positive significant impact on the economic growth of the 77 countries, especially in the developing countries.
5	Asmak Ab Rahman, Shamsiah Mohamad, Wan Marhani Wan Ahmad & Mohd Fauzi Hussin	2011	To study the Islamic insurance development in Malaysia.	1985- 2011	Historical and documentation method	N/A	The results showed that Takaful industry in Malaysia is predicted to continue growing based on the increase in Takaful and Re- Takaful companies as well as Takaful funds, models, and policies.

6	Jordan Kjosevski	2012	To investigate the role of insurance on economic growth of the Republic of Macedonia.	1995-2010	OLS regression	Dependent variable: GDP per capita growth rate Independent variables: - Insurance/Takaful market: 1. Total insurance premiums to GDP 2. Total non-life insurance premiums to GDP 3. Total life insurance premiums to GDP -Control variables: 1. Private credit 2. Export 3. Investment 4. Education 5. Government spending 6. Inflation 7. Reform index	The findings showed that insurance industry has a positive significant impact on economic growth of the Republic of Macedonia.
7	Han Houa, Su-Yin Chengb & Chin-Ping Yuc	2012	To study the effect of banking and life insurance on economic growth in 12 European countries.	1980-2009	Fixed effect model and cross-sectional panel data analysis	Dependent variable: GDP Independent variables: - Insurance/Takaful and banking market: 1. Ratio of life insurance premium volume to GDP 2. Ratio between credits value by money banks deposit and other financial institutions to GDP (private credit) 3. Ratio of liquid liabilities of the financial intermediary to GDP	The results showed that fixed effect model supports that banking and life insurance activities play a significant role in promoting economic growth in the Euro zone countries.
8	Oke, Michael Ojo	2012	To study the link	1985-	Granger causality test	Dependent variable:	The results showed that insurance

			between insurance and economic growth in Nigeria both in short- and long-run.	2009		GDP Independent variables: - Insurance/Takaful market: 1. Number of insurance companies 2. Total of life-insurance premiums 3. Total of non-life insurance premiums 4. Total insurance investment -Control variables: 1. Education 2. Trade openness 3. Inflation 4. Investment 5. Bank credit 6. Stock capitalization	affects the Nigerian economic growth positively significant.
9	Philip Chimobi Omoke	2012	To empirically examine the link between insurance and economic growth in Nigeria.	1970-2008	Johansen's cointegration test & VECM	Dependent variable: Real GDP Independent variables: - Insurance/Takaful market: 1. Total insurance premiums per capita Control variables: 1. Savings rate 2. Inflation rate	The results showed that insurance does not affect economic growth in Nigeria for the period of study.

10	Olalekan Yinusa & Taiwo Akinlo	2013	To examine the impact of insurance on economic growth in Nigeria both in short- and long-runs.	1986-2010	ECM	Dependent variable: Real GDP Independent variables: - Insurance/Takaful market: 1. Total life insurance premiums 2. Total non-life insurance premiums Control variables: 1. Gross capital formation 2. Education 3. Interest rate 4. Inflation rate	The results showed that insurance affects the Nigerian economic growth positively significant in the long run.
11	Anju Verma & Renu Bala	2013	To empirically investigate the link between the life insurance and economic growth in India.	1990 to 2010	OLS regression	Dependent variable: GDP Independent variables: - Insurance/Takaful market: 1. Total life insurance premiums 2. Total life insurance investment	The findings showed that insurance has a positive significant impact on Indian economic growth.

12	Abdul Latif Alhassan & Vera Fiador	2014	To empirically study the impact of insurance on economic growth in Ghana.	1990-2010	ARDL	Dependent variable: GDP growth rate Independent variables: - Insurance/Takaful market: 1. Total life insurance premiums 2. Total non-life insurance premiums Control variables: 1. Gross fixed capital formation 2. Consumer price index 3. Trade volume	The results showed that insurance has a positive significant impact on economic growth in Ghana with a unidirectional causality, which supports "supply-leading hypothesis".
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13	Hadhek Zouhaier	2014	To empirically investigate the link between insurance and economic growth of 23 OECD countries.	1990-2011	Static panel data model	Dependent variable: GDP per capita growth rate Independent variables: - Insurance/Takaful market: 1. Total life insurance penetration rate 2. Total non-life penetration rate 3. Total insurance penetration rate (premiums to GDP ratio) 4. Total life insurance density 5. Total non-life insurance density 6. Total insurance density (premiums to population ratio) Control variables: 1. Gross fixed capital formation 2. Inflation 3. Trade openness 4. Bank deposits 5. Stock market	In all of the 23 OECD countries, it is shown that there is a positive impact of insurance penetration on the economic growth, but there is a negative impact of insurance density on the economic growth.
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14	Ibrahim Muhammad Mueya & Ahmad Fahmi Shiekh Hassan	2016	To investigate the impact of Takaful on economic growth in GCC and ASEAN countries.	2004-2012	GMM	Dependent variable: Real GDP Independent variables: - Insurance/Takaful market: 1. Takaful gross premiums - Control variables: 1. Consumer price index 2. General government consumption 3. Trade openness	It is found that there is a significant positive effect of Takaful on the economic growth of GCC and ASEAN countries.
15	Amna Sohail Rawat & Syed Kumail Mehdi	2017	To study the impact of Takaful and Islamic banks on economic growth in Pakistan.	2009-2014	Fixed effect model	Dependent variable: GDP Independent variables: - Insurance/Takaful market: 1. Total contributions of Takaful 2. Total deposits of IB - Control variables: 1. Inflation 2. Foreign direct investment 3. Interest rate	It is found that Takaful and Islamic banks both contribute positively to the Pakistan economic growth.

16	Muhammad Abduh & Syaza Nawwarah Zein Isma	2017	To empirically investigate the economic factors that affect the family Takaful companies' solvency in Malaysia.	2008-2012	Panel data	Dependent variable: Equity-to-asset and equity-to-technical reserve ratio (as a proxy for Takaful's solvency) Independent variables: - Economic factors: 1. Profit rate 2. Islamic index 3. Company size 4. Risk retention 5. Contribution growth 6. Investment income 7. Takaful leverage 8. Liquidity and expenses	The panel regression results showed that contribution growth, company size, takaful expenses and leverage are statistically significant to family takaful's solvency in Malaysia.
17	Amela Trokic	2017	To investigate the potential role of Takaful in financial inclusion.	N/A	Reviews of works	N/A	It is shown that Takaful has a great potential in poverty alleviation and economic empowerment.
18	Mohsin M. Hussein	2018	To study the role of Takaful in African economic development.	N/A	Reviews of works	N/A	It is shown that Takaful has a very significant role in African economic development.
19	Nor Izzati Mohd Aziz, Salina Kassim	2020	To examine the Takaful industry's contributions towards Malaysian economic growth, investment and savings.	N/A	Questionnaire (Smart-PLS)	Dependent variable: Takaful demand Independent variables: - Economic indicators: 1. Saving and investment behaviour 2. Investment-linked preferences	It is shown that Takaful can promote economic growth via investments and savings.

20	Belatik	2021	To examine the role of Takaful industry.	N/A	Reviews of works	N/A	The results showed that Takaful should highly focus on the areas of innovation and economic growth, given the Covid-19 impact on the nation.
21	Sawssen Nafti	2022	To examine the link between Takaful and poverty in Islamic economy.	N/A	Review of works	N/A	It is shown that in the long-run, Takaful is a good solution to poverty in Islamic economy.
22	Amirul Afif Muhamat, Ahmad Farouk Zulkifli, Muhammad Azman Ibrahim, Suzana Sulaiman, Geetha Subramaniam, Saadiah Mohamad, and Yasushi Suzuki	2022	To examine the role of Takaful in Corporate Social Performance (CSP) in Malaysia.	N/A	Reviews of works and Interview	N/A	It is found that Takaful through the collaboration with government will benefit the country when misfortune events occur, such as via the jointly allocation of funds for Drone-Assisted Disaster Victim Identification (DVI).

A.3 SUMMARY OF QUALITATIVE STUDIES ON IB-GROWTH NEXUS

No	Authors	Year of Publish	Objective of Study	Period of Study	Method	Method Analysis	Number of Interviewees	Variables	Discussion on Findings/Remarks
1	Abdelhafid Benamraoui	2008	To examine the performance of Islamic banks in Alger	N/A	Interview	To ensure good data analysis, 3 main steps stated by Miles and Huberman (1994) are used: 1. Data reduction 2. Data integration and display 3. Drawing conclusions	18	Short-term Financing: 1. Murabahah 2. Bai' As-Salam 3. Divers Debit 4. Bai' Al-Istisna' 5. Securities	It is found that most of the instruments offered by Islamic banks in Algeria are geared towards short-term financing, and the bank's overall performance has improved since its initial operations. Besides, he also suggested to adopt effective risk management tools to deal with investment funds according to the <i>Shari'ah</i> principles, so that more investors and depositors would be attracted to ensure the best use of their investment funds, and boost the economy
2	Mohammad Rajaei-Baghshiyael	2011	To study how can bank managers ensure the banking system activities are <i>Shari'ah</i> -compliant, and how can they contribute to economic growth	1989-2006	Literature Review Analysis and Semi-Structured Interview	Thematic Analysis and Coding	12	Banks' Data: 1. Total deposits 2. Total financial facilities 3. GDP Banks' Projects: 1. Highways 2. Petrochemical Industries 3. Paper and Wood Industries 4. Farming 5. Automobile Manufacture 6. Cement Industry 7. Railways	It is found that most of the interviewees believe that Iranian IB system is <i>Shari'ah</i> -compliant and contribute positively to economic growth.
3	Ahmed El-Galfy	2012	To study the effects of IB on economic	N/A	Literature Review	Review the literature	N/A	Discussion: 1. IB's Main Characteristics	It is shown that there is a mixed support for the hypothesis of IB

	and Khiyar Abdalla Khiyar		growth		Analysis	related to the topic		2. IB's Advantages 3. Islamic banks' Key Instruments 4. IB-Growth Nexus' Empirical Studies	as a main channel of economic growth, but the policy implication shows that IB contributes positively to economic growth.
4	M. Saleh Sarwer, Muhammad Ramzan and Waqar Ahmad	2013	To study whether IB contributes to economic development in Pakistan	N/A	Interview	Content Analysis	6	8 Questions for the Interviewees: 1. Islamic banks' effect on the monetary resources' mobilization 2. Islamic banks' effect on monetary resources' allocation 3. Islamic banks' effect on encouraging society to deal with the Islamic banks 4. Islamic banks' effect on external and internal economic crisis 5. Islamic banks' effect on inflation 6. Islamic banks' effect on employment 7. Islamic banks' effect on trade 8. Islamic banks' effect on real GDP	It is shown that majority of the interviewees agreed that Islamic banks have a positive effect on monetary resources' mobilization and allocation, improve economic crisis, inflation, employment, and real GDP as well as encourage people to deal with Islamic banks. Meanwhile, only 33.33% of the interviewees opined that Islamic banks have a positive effect on trade.
5	Muhammad Yasir Yusuf and Zakaria bin Bahari	2015	To investigate the instrument and criteria of Islamic corporate social responsibility towards the formation of a sustainable economic development	N/A	Literature Review and Interview	Content Analysis	5	Discussion: 1. CSR in Islamic banks 2. Instruments and criteria in Islamic banks	It is revealed that there are six fundamental criteria with 34 items considered critical for corporate social responsibility to give a positive impact on the society. These criteria are <i>Shari'ah</i> compliance, responsibility in work, equality, welfare guarantee, environmental sustainability guarantee and

									charity for virtue preservation.
6	Ashurov Sharofiddin, Ahmed Fauzi Bin Idris, and Anwar Hasan Abdullah Othman	2018	To explore the challenges of conventional banks' practices and the prospects of Islamic banks' establishment in Tajikistan	N/A	Interview	Thematic Analysis and Coding	7	5 Questions for the Interviewees: 1. What are the challenges of Tajikistan's practices of conventional banking? 2. Why do majority of the people avoid dealing with the current conventional banking practices? 3. Do you think Islamic banks can attract more customer if it is introduced in Tajikistan? 4. What are the current banking practices' challenges that will lead to the establishment of Islamic banks in Tajikistan? 5. How will Islamic banks contribute to the economic development and society in Tajikistan?	It is shown that the list of challenges that current banking practices facing in Tajikistan include interest system, distrust, and complicated systems with long processes, which encourage for the establishment of IB system in Tajikistan, with the hope that the issues must be avoided. Generally, they believe that Islamic banks can contribute to social welfare and economic development by filling the financial intermediary gap in the country.
7	Ummu Salma Al Azizah and Muhammad Choirin	2018	To discuss on financial innovation on Zakat distribution and economic growth in Indonesia	N/A	Literature Review and Interview	Content Analysis	1 institution (Badan Amil Zakat Nasional)	Discussion: 1. Poverty and economic growth 2. Zakat's economic potential 3. Zakat Management in Indonesia 4. Financial technology	It is found that the IF and technological determinants are promoting poverty alleviation and economic growth, and Zakat institutions are deep well developed in countries with more digital finance start-up formations when latest technology is readily available.
8	Bedjo Santoso	2020	To explore the role of Micro, Small, and Medium Enterprises (MSMEs) towards Sustainable Development Goals	N/A	Survey and Semi-Structured Interview	Descriptive Analysis	384 respondents by questionnaire and 374 of them are	Analysis from the Demand's Side: 1. IFIs' roles as a capital source for MSMEs 2. Utilization of IFIs' products by MSMEs	It is revealed that IFIs support MSMEs in the context of SDGs in terms of industrial innovation, poverty alleviation, financial stability, infrastructure, income

			(SDGs) via Islamic financial institutions (IFIs) in Indonesia				being interviewed semi-structurally	3. IFIs' optimization's strategy 4. Intention to access and use IFIs' products 5. IFIs' strategy to strengthen their role in MSMEs Analysis from the Supply's Side 1. IFIs' role to MSMEs in the context of SDGs	distribution, and economic growth. From the demand's side, the intention to access and use MSMEs to IFIs is still very low, but if strategy like financial literacy is implemented, in the future, it can be better.
9	Nura Abubakar Gwadabe and Asmak Ab Rahman	2020	To investigate IF's role in <i>Waqf</i> provision based on economic, youth empowerment and social welfare to overshadow the COVID-19's economic impact in the state of Kano in Nigeria	N/A	Structured Interview	Merriam Ideal and Thematic Analysis	6	Interview Discussion: Waqf's Role to Cushion COVID-19's impact: 1. Waqf-Based Healthcare Services 2. Waqf-Based Economic and Social Welfare	It is revealed that <i>Waqf</i> has the can promote economic wellbeing and youth empowerment to the Kano people via financing the small and medium enterprises. It is also concluded that <i>Waqf</i> can be used to overcome economic challenges during and post COVID-19 era, which lead to financial stability and realization of <i>Maqasid Shari'ah</i> .
10	Talbani Farlian, Rollis Juliansyah and Meutia Handayani	2021	To explore the influence of Islamic banks on economic growth in Aceh, Indonesia	2012-2018	Survey and Interview	Descriptive Analysis	8	8 banks to participate in Islamic bank-growth nexus in Aceh: 1. Bank mega <i>Shari'ah</i> 2. Bank Mandiri 3. BRI <i>Shari'ah</i> 4. Bank Aceh <i>Shari'ah</i> 5. Bank Danamon <i>Shari'ah</i> 6. Permata Bank <i>Shari'ah</i> 7. Maybank 8. Bank Muamalat	It is shown that Islamic banks play a significant role in promoting economic growth in Aceh.
11	Rashad N Brydan	2022	To study the interactions between IB and economic growth in Libya	2002-2008	Both qualitative and quantitative	Descriptive Analysis	100 via open questions	Discussion: 1. Financial development and economic growth 2. IB's key investment	It is shown that IB is positively contributing to Libya's economic growth.

					to collect the relevant data			3. IB's benefits 4. Competitive performance and financial ratios between conventional and Islamic banks	
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A.5 SUMMARY OF QUALITATIVE STUDIES ON ISLAMIC CAPITAL-GROWTH NEXUS

No	Authors	Year of Publish	Objective of Study	Period of Study	Method	Method Analysis	Number of Interviewees	Variables	Discussion on Findings/Remarks
1	Pitluck, Aaron Z	2008	To study the moral behaviour in stock markets	2001-2002 and 2006	Interview	Transcribe	125 tape-recorded semi-structured ethnographic interviews with financial workers in Malaysia in 2001-2002, and 22 interviews with 6 experts in 2006	Discussion: 1. United States (U.S.) and Malaysian ethical investment social movements 2. Social construction of mandates 3. ICM's political economy of market structure	It is argued that 'market structure' shapes the moral investment behavior in stock markets rather than the 'mandates'. Mandates are weak in both U.S. and Malaysia. Social investing in the U.S. is weak because it relies solely on mandates, while Islamic and ethical finance in Malaysia is strong because Islamic social movements have reformed the Malaysian stock market's structure.

2	Noor Mohammad Osmani and Md. Faruk Abdullah	2009	To study the validity and status of stock market from <i>Shari'ah</i> principles	N/A	Literature Review	Inductive and Analytical Approach to the Available Literature	N/A	Discussion: 1. Islamic financial markets 2. Securities 3. Stock exchange	It is found that Islamic stock market adopts a dynamic approach towards the securities development, where it incorporates numerous conventional stock market products and prohibit others. The responsible entities must play their significant role to establish a more <i>Shari'ah</i> -compliant Islamic stock market.
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3	Seda Demiralp	2009	To examine the rise of ICM and the decline of Islamic radicalism in Turkey	2005-2006	Interview	Content Analysis	N/A	Discussion: 1. The connection between class and Islamism at a new level 2. Why Islamist business groups pursued specific agendas 3. Why and when Islamist groups stopped pursuing these agendas	It is found that the broad-based alliances between secularist and Islamist groups via economic bargains will pave the most reliable way to democratization in the Muslim world.
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4	Jasri Jamal, Naaishah Hambali and Hasani Mohd Ali	2010	To examine ICM and <i>Shari'ah</i> screening in Malaysia	N/A	Literature Analysis	Analysis of reports	N/A	Discussion: 1. Screening and criteria methodology for <i>Shari'ah</i> -compliant stocks 2. Mixed companies 3. <i>Shari'ah</i> -compliant securities' benchmark 4. <i>Shari'ah</i> guidance on investment in stocks that are non <i>Shari'ah</i> -compliant 5. Returns' cleansing	A sustainable market for the efficient mobilisation of Islamic funds has been created because of SC's ability to allow for the development of a wide range of competitive goods and related services.
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5	Syed Faiq Najeib and Mirza Vejzagic	2013	To examine the growth, development and challenges of ICM in Indonesia, Malaysia, Brunei and United Arab Emirates	N/A	Literature Review	Comparative Analysis	N/A	Discussion: 1. ICM growth 2. ICM development 3. ICM challenges	One of the five goals of <i>Maqasid Shari'ah</i> is the preservation of wealth. The variety of financing and investment opportunities are limited without Islamic financial markets. Islamic capital markets give Muslims the opportunity to actively contribute to the economic growth without violating their religious principles.
6	Mohamed Araar	2014	To examine the role of <i>sukuk</i> on economic development in Tunisia	N/A	Literature Review and Interview	Transcribe	9	Interview Questions: Questions on "what happens" and "how it happens" are asked about sukuk and IF in Tunisia	It is found that more roles need to be played by government and Central bank to boost sukuk and IF markets as Tunisia still lacks experts in these fields.

7	Yulizar	2017	To examine the role of ICM for MSMEs via venture capital and mutual fund	N/A	Literature Review, Survey and Interview	Analytical Network Process (ANP)	N/A	Discussion: 1. MSMEs 2. <i>Shari'ah</i> Limited Participation Fund (SLPF)'s roles 3. Proposed model and venture capital	It is found that there are 4 main issues on the proposed model: a) Investment manager/mutual fund's reputation b) Corporate (venture capital)'s investment grade rating c) Investor's risk appetite d) Government regulation
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8	M. Kabir Hassan, Sirajo Aliyu, Buerhan Saiti and Zairihan Abdul Halim	2020	To investigate the performance of IF-growth nexus, Islamic stock indexes, and Islamic real-estate investment trust market	N/A	Literature Review	Analysis of articles from Web of Science and Scopus	N/A	Discussion: 1. Islamic stock market 2. IF-growth nexus 3. Islamic real-estate finance	It is found that (1) Islamic stock indices are less volatile than conventional stock indices (2) Most empirical studies regarding IF-growth nexus focus on banking sectors, while other segments are neglected (3) There is no unanimous model for Islamic home financing in Islamic banks.
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9	Mahfuzur Rahman, Che Ruhana Isa, Ginanjar Dewandaru, Mohamed Hisham Hanifa, Nazreen T. Chowdhury and Moniruzzaman Sarker	2020	To examine socially responsible investment <i>sukuk</i> (SRI) development in Malaysia	N/A	Semi-Structured Interview	Thematic Analysis	19	3 Parts of the Interview Question: 1. Investment preferences to SRI 2. Investors psychology related to SRI 3. Investors' socio-demographical data	It is found that the key motivational drivers for the investors and issuers is social contribution through business activities such as investment in the education sector. Besides, the major challenges for the SRI <i>sukuk</i> instruments' development are investment risks, high transaction costs, lack of performance measurement standards, risks of return, shortage of Islamic bonds, investors' confidence and lack of awareness.
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10	Felicia HM Liu and Karen PY Lai	2021	To study the recent development of green <i>sukuk</i> and green IF in Malaysia	N/A	Literature Review and Interview	Transcribe for coding and analysis	23	Discussion: 1. Theorising 'greenness' as financial ecologies 2. Green <i>sukuk</i> development to advance IF frontier 3. Green <i>sukuk</i> : state-building tool or climate action?	It is found that there is an emergent of international adoption of green <i>sukuk</i> , which achieves the Malaysia's state-building objectives, specifically through advancing its status Islamic financial innovations frontier and expanding Malaysia's <i>sukuk</i> market. However, the potential for improving the current green bond regime is difficult.
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A.6 SUMMARY OF QUALITATIVE STUDIES ON TAKAFUL-GROWTH NEXUS

No	Authors	Year of Publish	Objective of Study	Period of Study	Method	Method Analysis	Number of Interviewees	Variables	Discussion on Findings/Remarks
1	Syahida Abdullah	2012	To examine Takaful from <i>Maqasid Shari'ah</i> Perspective	N/A	Literature Review	Analysis of the previous books, journal articles, conference papers and other periodicals	N/A	Discussion: 1. Protection of life 2. Protection and circulation of wealth 3. Protection of human dignity	It is found that the risk management concept of takaful is well within the <i>Maqasid al-Shari'ah</i> to protect life, wealth, and human dignity against any kind of misfortunes.
2	Juliana Arifin, Ahmad Shukri Yazid and Zunaidah Sulong	2013	To propose a simple yet comprehensive conceptual model by identifying the main determinants that drive family takaful demand in Malaysia.	N/A	Literature Review	Descriptive and Theoretical Analysis of established journal	N/A	Discussion: 1. Family Takaful demand's factors 2. Family Takaful demand's determinants 3. <i>Al-Wakalah</i> (the agency system) 4. Recommendation and reputation 5. Services and products 6. Advertising and marketing	It is found that the main determinants for family takaful demand are agency system (<i>al-wakalah</i>), products and services, reputation of Takaful operators, advertising and marketing of Takaful products.

3	Naail Mohammed Kamil and Norsham Binti Mat Nor	2014	To investigate the factors that influence consumers to choose Takaful over conventional insurance in Malaysia	N/A	In-depth Interview	Transcription and Integration	4	Discussion: 1. Takaful concept 2. Factors that influence consumers to buy Takaful products 3. Takaful benefits 4. Takaful industry's future in Malaysia 5. The link between Takaful purchasing and religion	It is found that Takaful customers aware of the link between insurance and religion in modern business, understand the roles of Takaful agents in explaining the concept of Takaful and its benefits as acts of worship (<i>Ibadah</i>) and <i>da'wah</i> , and agree that Takaful is necessary for Muslims as a replacement for conventional insurance.
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4	Fauzilah Salleh, Mohamed Dahlan Ibrahim, Razman Hafifi Redzuan and Norizan Remli	2017	To develop a framework of Takaful property for SMEs in Malaysia	N/A	Survey, interview via Focus Group Discussion (FGD)	Content Analysis	8	Discussion: 1. Main research theory 2. Flood damage 3. Flood insurance 4. Current Takaful schemes for SMEs	It is found that the government has formulated legislative policies to enable SME-ART scheme implementation and make it mandatory for the SMEs to take Takaful policies before renewing business licenses.
5	Fauzilah Salleh, Nahidah Mustafa, Wan Norhayate Wan Daud, Ahmad Shukri Yazid, Puspa Liza Ghazali, Nik Ahmad Sufian Burhan, Mohd Nazmi Hosnih	2018	To examine the Micro Health Takaful Framework (MHT) for the poorer community in Malaysia	N/A	Survey and FGD	Verbatim Transcription	8	Variables of the study: 1. Contribution of the poor people to the health scheme 2. Disease suffered by the poor people	It is found that poor people are interested to participate in health scheme. Some of the respondents are unwilling to pay even the RM5, while most of them are only willing to contribute a nominal sum of around RM5-15 per month.

6	Noor Mizana Arifin and Wan Norhayate Wan Daud	2018	To study factors that affects the Takaful regulations and rules in Indonesia and Malaysia	N/A	In-depth Interview and Case Study	Transcription and Descriptive Analysis	N/A	Discussions: 1. Professionalism 2. External pressure (Legitimacy and political influences) 3. Uncertainty or standard response by other countries	Professionalism, external pressure (legitimacy and political influences) and uncertainty or standard response by other countries are amongst the factors that affects the Takaful regulations and rules in Indonesia and Malaysia such as IFSA 2013 and Financial Services Authority (FSA).
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7	Muhammed Hy dara	2020	To develop an integrative model of <i>Sadaqah</i> , <i>Waqf</i> and Takaful to alleviate poverty via empowering women farmers in Gambia	N/A	Literature Review	Descriptive and Theoretical Analysis	N/A	Discussion: 1. National Women Farmers Association (NAWFA) 2. Endowment sources 3. <i>Tabarru'</i> concept 4. <i>Mudarabah</i> contract 5. Description of the Integrative Model of <i>Sadaqah</i> , <i>Waqf</i> and Takaful	It is found that the proposed model for Gambian women farmers in the agricultural sector serves as the backbone of the Gambian economy with contribution of over 20% to GDP and an employability rate of over 70% of the population, which depicted the efficient use of resources by the <i>Waqf</i> institution under strict <i>Shari'ah</i> principles.
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8	Peni Nugraheni and Rifqi Muhammad	2020	To identify the strategies to expand the Takaful industry in Indonesia by considering geographical conditions and demographic characteristics	N/A	Literature Review	Descriptive Analysis	N/A	Discussion: 1. Market innovation 2. Product innovation 3. Process innovation 4. Promotional strategies	It is found that product, market and process innovations are chosen as the strategies to expand the Takaful market in Indonesia.
9	Fauzilah Salleh, Muhammad Shahrul Ifwat Ishak, Normazlina Abu Bakar and Siti Maria Wardayati	2021	To develop a sustainable <i>Waqf</i> Crop Micro Takaful Framework (WCMTF) for small farmers in establishing Crop Micro Takaful Scheme.	N/A	Survey and Literature Review	Descriptive and Theoretical Analysis	N/A	Discussion: 1. Crop Micro Takaful's contribution issues 2. Crowdfunding 3. <i>Waqf</i> 4. Sustainability agriculture business 5. Income stability of the smallholders 6. Strategic thrust 2-key economic growth activities	The model is developed to assist the <i>Waqf</i> institution in building a WCMTF. To gather funds in Malaysia for the construction of the WCMTF, the crowdsourcing approach is being used based on rewards and donations, not on the nature of cash <i>Waqf</i> .

10	Muh Zul Hazmi Rapi, Adnan Opeyemi Salaudeen, Muhammad Imran Muhammad Rawi Ravi, Rois Wongsangiam, and Nur Harena Redzuan	2022	To review the microtakaful's potential roles in aiding the B40 group in Malaysia to cope with the COVID-19 pandemic's effects	N/A	Literature Review	Analysis of the previous books, journal articles, conference papers and other periodicals	N/A	Discussion: 1. Takaful's and Microtakaful's concept 2. COVID-19's effects on Malaysian economy 3. Malaysian B40 group 4. Malaysian selected microtakaful products	Several critical roles of microtakaful in helping the B40 group in Malaysia are found such as: (i) Alleviate poverty (ii) Provide Shariah-based protection (iii) Promote financial inclusion
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A.7 SUMMARY OF QUALITATIVE STUDIES ON BETWEEN STUDY ANALYSIS

No	Year	Authors	Titles	Objective of Study	Period of Study	Method	Variables	Findings
1	2007	Asyraf Wajdi Dusuki and Abdulazeem Abozaid	A Critical Appraisal on the Challenges of Realizing <i>Maqasid al-Shari'ah</i> in Islamic Banking and Finance	To examine the challenges of <i>Maqasid al-Shari'ah</i> 's proper realization in Islamic banking and finance	N/A	Literature Review Analysis	Challenges of <i>Maqasid al-Shari'ah</i> Objectives in Islamic Finance: 1. Understanding of <i>Maqasid al-Shari'ah</i> in Islamic economics 2. Implementation of <i>Maqasid al-Shari'ah</i> in Islamic banking and finance	The principles of the <i>Shari'ah</i> are exhibited not only in the details of its dealings but also in the scope of its influence on the society. This necessitates the internalization of <i>Shari'ah</i> principles in all of their form, spirit, and substance

							3. Conflicts in Micro- and Macro- <i>Maqasid</i> 4. Abuse of <i>Maqasid al-Shari'ah</i> to justify financial contracts	in Islamic financial operations. By doing this, the goals of <i>Shari'ah</i> in advancing economic and social justice will be furthered.
2	2007	Abdulazeem Abozaid and Asyraf Wajdi Dusuki	The Challenges of Realizing <i>Maqasid al-Shari'ah</i> in Islamic Banking and Finance	To examine the challenges of the proper implementation of <i>Maqasid al-Shari'ah</i> in Islamic banking and finance	N/A	Literature Review Analysis	Challenges of <i>Maqasid al-Shari'ah</i> Objectives in Islamic Finance: 1. Ideal versus reality 2. <i>Al-Siyasah Al-Shar'iyah</i> (policy in accordance to <i>Shari'ah</i>) 3. <i>Maslahah</i> 4. Validity versus permissibility 5. Macro <i>Maqasid</i> versus Micro <i>Maqasid</i>	It is concluded that Islamic banking and finance must ensure that all of its transactions are <i>Shari'ah</i> -compliant not only on its legal technicalities and forms but also to the economic substance to realise the <i>Maqasid al-Shari'ah</i> .
3	2007	Abdul Rahim Abdul Rahman	Islamic Banking and Finance: Between Ideals and Realities	To examine the idealism versus realism in Islamic banking and finance industry	N/A	Literature Review Analysis	Discussion: 1. Islamic economics goals 2. Making Islamic finance accessible to the poor community	It is shown that banks due to their conservative and risk averse nature, prefer debt financing modes compared to equity financing modes. Islamic banks must internalize

								Islamic economics' axioms and <i>Maqasid Shari'ah</i> 's objectives.
4	2008	Muhammad Umer Chapra, Shiraz Khan, Anas Al Shaikh-Ali	The Islamic Vision of Development in the Light of <i>Maqasid al-Shari'ah</i>	To review development from the perspective of <i>Maqasid al-Shari'ah</i>	N/A	Literature Review Analysis	Well-Being and Human Development to be realized: 1. Faith (<i>Din</i>) 2. The human self (<i>Nafs</i>) 3. Intellect (<i>'Aql</i>) 4. Posterity (<i>Nasl</i>) 5. Wealth (<i>Mal</i>)	The five factors of human development and well-being, which include faith, human self, posterity, intellect, and wealth, together with their effects have been emphasized by Islam. They are all interdependent and supporting each other.
5	2008	Muhammad Umer Chapra	Ibn Khaldun's Theory of Development: Does It Help Explain the Low Performance of the Present-Day Muslim World?	To present Ibn Khaldun's multidisciplinary and dynamic theory of development, and applying the model to Muslim countries	N/A	Literature Review Analysis	Ibn Khaldun's Theory of Development: 1. Moral 2. Social 3. Economic 4. Politics 5. History	Ibn Khaldun's Theory of Development argues that the decline or development of an economy depends on the interaction of five factors, which include moral, political, social, historical, and economic over a long period of time. The low performance of the current Muslim countries can be attributed to the fail of the interaction between the five factors.

6	2009	Eddy Yusof, Ezry Fahmy and Kashoogie, Jhordy and Anwar Kamal, Asim	Islamic Finance: Debt versus Equity Financing in the Light of <i>Maqasid al-Shari'ah</i>	To obtain various view of scholars on the advantage of equity financing over the debt financing in the current application of Islamic banking and finance to achieve equality and justice that are enshrined in the objectives of <i>Shari'ah</i>	N/A	Literature Review Analysis	Islamic Finance Financing: 1. Debt-based financing 2. Equity-based financing	To resolve the current financial debacle faced by many countries as a result of lack of financial discipline reckless risk taking, the Islamic banks have to avoid debt-based financing because it can lead economy into a deep crisis and urge for a stronger implementation of equity-based financing to achieve the objectives of <i>Maqasid al-Shari'ah</i> .
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7	2009	Mohammad Hashim Kamali	In Focus <i>Maqasid al-Shari'ah</i> and Ijtihadas Instruments of Civilisational Renewal: A Methodological Perspective	To develop the idea of a <i>Maqasid</i> -based framework for <i>tajdid hadari</i> (civilisational renewal)	N/A	Literature Review Analysis and Interpretation of <i>Nas</i> and <i>Hadis</i>	Principal Indicators of <i>Maqasid al-Shari'ah</i>: 1. Clear text 2. Inductive reasoning (<i>Istiqra'</i>) 3. Human intellect (<i>'Aql</i>) 4. Human nature (<i>Fitrah</i>)	The methodology of <i>Maqasid</i> and the search for additional indicators as well as widening their application and scope to the wider civilisational objectives of Islam are presented.
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8	2011	Mohammad Hashim Kamali	Ethics and Finance: Perspectives of the <i>Shari'ah</i> and Its Higher Objectives (<i>Maqasid</i>)	To review <i>Maqasid al-Shari'ah</i> in Islamic finance	N/A	Literature Review Analysis	Islamic Finance Characteristics: 1. Prohibition of interest 2. Asset-backed financing 3. Minimum debt reliance 4. Risk-taking (<i>Gharar</i>)	It is concluded that due to many imitations of conventional products, Islamic finance need to well-consider the measures and policy initiatives to enhance the ethical dimensions of their products and operations to achieve the overall objectives of <i>Maqasid al-Shari'ah</i> .
9	2011	MB Hendre Anto	Introducing an Islamic Human Development Index (I-HDI) to Measure Development In OIC Countries	To develop a new measurement of human development under Islamic perspective (I-HDI), and to simulate this index to measure the level of human development in OIC countries	N/A	Weighted Average of the Index	Measurement variables: Faith (<i>din</i>): 1. Corruption /criminal rate Human Self (<i>nafs</i>): 1. Life expectancy rate 2. Drug abuse rate Posterity (<i>nasl</i>): 1. Divorce raye 2. Fertility & mortality rate Intellect ('<i>Aql</i>) 1. Education 2. Literacy rate Wealth (<i>Mal</i>) 1. GDP per capita 2. Gini ratio / poverty	It is found that several countries that are dominated by Middle Eastern countries enjoy a better rank in I-HDI compared to HDI. In addition, the wealt (<i>Mal</i>) index is found to be the most significant one, which indicate the significance of wealth in human development

							rate Additional Index: 1. Political freedom 2. Carbon dioxide emission rate Human Wellbeing 1. Human development index	
10	2011	Mirza Vejzagic and Edib Smolo	<i>Maqasid al-Shari'ah</i> in Islamic Finance: An Overview	To review <i>Maqasid al-Shari'ah</i> in Islamic finance	N/A	Literature Review Analysis	1. <i>Maqasid al-Shari'ah</i> in Islamic banking sector 2. <i>Maqasid al-Shari'ah</i> in Islamic capital market sector 3. <i>Maqasid al-Shari'ah</i> in Takaful sector	To realise the <i>Maqasid al-Shari'ah</i> , it is concluded that Islamic banking, Islamic capital market and Takaful sectors must ensure that all of its transactions are <i>Shari'ah</i> -compliant not only on its legal technicalities and forms but also to the economic substance.
11	2012	Housseem Eddine Bedoui	<i>Shari'ah</i> -Based Ethical Performance Measurement Framework and Relevant Data to Measure Development in Light of <i>Maqasid al-Shari'ah</i>	To develop a new framework to manage ethical performances in both financial and non-financial businesses	N/A	Literature Review Analysis	42 criterias for 5 elements of <i>Maqasid Shari'ah</i> are developed, which include poverty removal, education, research, tolerance, and so on.	A new mathematical (numeric) and geometric (graphic) approach to assess performance and evaluate objective application are developed.

12	2014	Rafi Amir-Ud-Din	<i>Maqasid al-Shari'ah</i> : Are We Measuring the Immeasurable?	To examine <i>Maqasid al-Shari'ah</i> as a concept that can be measured, to identify the indicators pertinent to this <i>Maqasid</i> , and to create a provisional multidimensional index that allows for cross-country comparisons within the OIC region	N/A	Literature Review Analysis and Survey	Weights of <i>Maqasid al-Shari'ah</i>: 1. Faith protection 2. Intellect protection 3. Life protection 4. Wealth protection 5. Lineage protection	A Maqasid al-Shari'ah Index (MSI) is developed based on the three levels; 1) Necessities, 2) Complementarities, and 3) Embellishments.
13	2014	Medhi Mili	A Structural Model for Human Development, Does <i>Maqasid al-Shari'ah</i> Matter!	To examine whether <i>Maqasid al-Shari'ah</i> contributes to human welfare	2011	Partial Least Squares-Path model	Measurement variables: Faith (<i>din</i>): 1. Government favouritism/regulation of religion index Human Self (<i>nafs</i>): 1. Health care index 2. Crime index 3. Poverty gap Posterity (<i>nasl</i>): 1. Divorce rate	It is found that <i>Din</i> and <i>Nafs</i> are the most significant elements that affect human well-being. Only 'Aql do not have a significant impact on human development index. This may be due to other factors that can impact life quality in several Islamic countries such as the impact of

							2. Child mortality rate Intellect ('Aql) 1. Primary & Secondary enrollment rate 2. Total of public spending on education (% of GDP) Wealth (Mal) 1. International Property Rights Index 2. Inclusive wealth index Human Wellbeing 1. Human development index	natural resource wealth.
14	2015	Mochammad Arif Budiman, Ruzita Mohd. Amin, Selamah A. Yusoff, Adewale Abideen Adeyemi	Measuring <i>Maqasid al-Shari'ah</i> at Micro Level with Special Reference to the Preservation of Wealth	To construct development measurement for wealth preservation (<i>hifz mal</i>)	N/A	Literature Review Analysis	Indicators suggested for preservation of wealth index: 1. Wealth security 2. Wealth maintenance 3. Wealth insurance 4. Financial management 5. Extravagance prohibition 6. Habit of saving 7. Zakat payment 8. Charity (<i>waqf/sadaqah</i>) 9. Earnings sufficiency 10. Income stability	A preliminary attempt in pointing out the indicators of wealth component in the framework of <i>Maqasid al-Shari'ah</i> is done, for instance, <i>zakat and sadaqah</i> , which are not considered in the conventional approach.

							11. Debt avoidance 12. Financial investment	
15	2015	Rahmatina Kasri and Habib Ahmed	Assessing Socio-Economic Development based on Maqasid al-Shari'ah Principles: Normative Frameworks, Methods and Implementation in Indonesia	To propose a framework based on the Maqasid principle to assess socio-economic development of Muslim countries	2011	Questionnaire / Survey	Poverty's Dimension: 1. Health 2. Education 3. Religion 4. Economic 5. Social	A workable example of how Maqasid al-Shari'ah principles can be implemented is provided, and zakat institutions are found to have the expected positive contribution in reducing poverty amongst the poor in Indonesia.
16	2015	Mustafa Omar Mohammed and Fauziah Md Taib	Developing Islamic Banking Performance Measures Based on Maqasid al-Shari'ah Framework: Cases of 24 Selected Banks	To develop the Islamic banking performance measures based on Abu Zaharah (1997)'s theory of Maqasid al-Shari'ah, which encompasses educating the individual,	2000-2005	Performance Measures based on Maqasid al-Shariah framework (PMMS) model, Mann-Whitney U-Test	Ten Ratios of PMMS model: 1. Education grant/total expenses 2. Research expenses/total expenses 3. Training expenses/total expenses 4. Publicity expenses/total expenses 5. Profit equalization	It is shown that Islamic banks' performance is very good when measured using the PMMS model, which shows that Islamic banks perform successfully in the reality.

				promotion of public interest and establishing justice			reserves/net or investment income 6. Mudarabah and Musharakah modes/total investment modes 7. Interest free income/total income 8. Net income/total assets 9. Zakat paid/net assets 10. Investment in real economic sector/total investment	
17	2015	Yazid Isa, Asmadi Mohamed Naim and Mohd Liki Hamid	The Practices of Islamic Finance in Upholding the Islamic Values and the <i>Maqasid al-Shari'ah</i>	To analyse <i>Shari'ah</i> scholars' views regarding <i>Maqasid Shari'ah</i> objectives and their implementation Islamic finance in Malaysia	N/A	Interview and Survey	<i>Maqasid al-Shari'ah</i> Objectives in Islamic Finance: 1. Fairness 2. Transparency 3. General <i>Maqasid al-Shari'ah</i> practices	While transparency, fairness and general objectives of <i>Maqasid al-Shari'ah</i> in Islamic finance are important, several banks in Malaysia still do not uphold these values in their operations and products.
18	2016	Reza Ghazal and Muhamed Zulkhibri	Islamic Inclusive Growth Index for the Organisation of Islamic Cooperation (OIC) Member Countries	Based on <i>Maqasid al-Shari'ah</i> principles, this study develops a comprehensive measurement for	N/A	Literature Review Analysis	3 sub-pillars to measure the performance of the countries: 1. Islamic-adjusted economic growth incorporating <i>Maqasid al-Shari'ah</i> 's principle	It is found that despite performing well on the three pillars of inclusivity, OIC member nations in Central Asia are falling short when it comes to adhering to <i>Maqasid al-</i>

				social progress and Islamic economic performance			2. Poverty reduction's performance 3. Social inclusion/inequality's performance	<i>Shari'ah</i> norms. Contrarily, the low-income OIC member nations in Sub-Saharan Africa are doing significantly well in accordance with <i>Maqasid al-Shari'ah</i> principles, while having a low ranking on the inclusiveness index.
19	2016	Ismail Nizam and Moussa Larbani	A Structural Equation Model of the <i>Maqasid al-Shari'ah</i> as a Socioeconomic Policy Tool	To concentrate on testing the theorized relationships in the <i>Maqasid al-Shari'ah</i> 's theory	N/A	Structural Equation Modelling (SEM) and Confirmatory Factor Analysis (CFA)	Measurement variables: Faith (<i>din</i>): 1. Worldview 2. Values and morality 3. Islamic Education Human Self (<i>nafs</i>): 1. Dignity, self-respect, brotherhood, social equality 2. Justice in punishments 3. Spiritual and moral uplift 4. Security of life, property and honor Posterity (<i>nashl</i>): 1. Proper upbringing, moral and intellectual development 2. Marriage and family integrity	A Structural Equation Model of <i>Maqasid al-Shari'ah</i> theory is proposed. It is shown that all of the five universal <i>Maqasid</i> elements' coefficients, which consists of a total of 29 variables are statistically significant, and the CFA model fit indices pass all acceptable thresholds.

						3. Need fulfillment of families Intellect ('Aql) 1. High quality of affordable religious and science education 2: Emphasis on the <i>Maqasid</i> in the interpretation of texts 3. Library and research facilitation Wealth (Mal) 1. Education, (R&D) and good management 2. Security of life, honor, and property 3. Good governance 4. Poverty removal, fulfillment, and equitable wealth distribution	
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20	2016	Aam S. Rusydiana and Salman Al-Parisi	The Measurement of Islamic Bank Performance: A Study Using <i>Maqasid</i> Index and Profitability	To measure <i>Shari'ah Maqasid</i> Index (SMI) and Profitability Index (PI) of Islamic Banks in Indonesia	2011-2014	<i>Shari'ah Maqasid</i> Index Weighting (Sekaran Method) and Comparative Performance Index (CPI)	<i>Maqasid al-Shari'ah</i> index: 1. Education a) Education grant/total income b) Research expenses/total expenses c) Training expenses/total expenses d) Publicity expenses/total expenses 2. Justice a) Profit/total income b) Bad debt/total investment c) Interest-free income/total income 3. Public Interest a) Net profit/total asset b) <i>Zakat</i> /net income c) Real economic investment/total investment	It is that the bank with the highest <i>Shari'ah Maqasid</i> Index is Panin Syariah Bank, while the bank with the highest Profitability Index is Maybank Syariah in the period of 2011-2014.
21	2017	Salman Ahmed Shaikh, Mohd Adib Ismail, Muhammad Hakimi Mohd.	Role of Islamic Banking in Financial Inclusion: Prospects and Performance	To examine the role of Islamic banking in financial inclusion	N/A	Literature Review Analysis	Discussion: 1. Idealism versus realism 2. Financial inclusion in OIC countries 3. Contribution of Islamic banking towards	It is found that less than 10 % of the poor people are under the microfinance radar in 26 out of 36 OIC countries. To reduce financial exclusion, it is recommended that Islamic

		Shafiai, Abdul Ghafar Ismail, and Shahida Shahimi					financial inclusion 4. Microfinance outreach gap in OIC countries	financial institutions use equity-based financing modes, leverage on technology, and focus attention toward microfinance.
22	2018	Mohd Noor Omar and Norhanim Mat Sari	<i>Maqasid al-Shari'ah</i> Philosophy in Monetary Regime Towards Inclusive Sustainable Growth	To study the philosophy of <i>Maqasid al-Shariah</i> to establish an appropriate Islamic monetary regime in achieving the sustainable growth of the ecosystem	N/A	Literature Review Analysis	N/A	It is shown that Islamic monetary mechanism and instruments as well as Islamic financial institutions (IFIs) operations are influenced by monetary policy tools and transmission channels set by the Central Bank and still exposed to the practices that are prohibited in Islam. By establishing only 'Islamic banks', an Islamic economic system cannot be attained, rather it can be realized if the society aims to achieve <i>homo-Islamicus</i> at a personal level and provide a general system of Islamic political economy.

23	2018	Muhammad Nazir Alias, Maimun Aqsha Lubis, Mohd Sham Kamis, Muhammad Adib Samsudin, Anwar Fakhri Omar, Ahmad Irdha Mokhtar	<i>Maqasid al-Shari'ah</i> as Determination of Islamic Law Based on Shafie School of Thought	To identify the position of <i>Maqasid al-Shari'ah</i> as a source of Islamic laws based on the Syafie school of thought	N/A	Analysis of <i>nas and dalil</i> through Istiqra'	N/A	It is shown that <i>Maqasid al-Shari'ah</i> is recognized as a determination of Islamic law in the Syafie school of thought based on <i>qiyas</i> and <i>maṣlahah mursalah</i> .
24	2018	Achmad Soediro and Inten Meutia	<i>Maqasid Shari'ah</i> as a Performance Framework for Islamic Financial Institutions	To develop Islamic financial institutions' performance measurement framework based on <i>Maqasid al-Shari'ah</i> .	N/A	Literature Review Analysis	<i>Maqasid al-Shari'ah</i> elements: 1. Faith (<i>Din</i>) 2. The human self (<i>Nafs</i>) 3. Intellect (<i>'Aql</i>) 4. Posterity (<i>Nasl</i>) 5. Wealth (<i>Mal</i>)	It is concluded that the <i>Maqasid al-Shari'ah</i> 's five elements must become the measurement framework for the Islamic financial institution' performance by transforming the concept directly into the management and governance aspects.
25	2018	Salman Ahmed Shaikh	Financial Inclusiveness in Islamic Banking in Pakistan: A Comparison of Ideals and Practices	To study the Islamic banking industry of Pakistan's progress towards fostering equitable	N/A	Literature Review Analysis	Discussion: 1. Islamic banking practices in Pakistan 2. Idealism versus realism 3. Financial inclusion and Islamic banking	It is shown that high average financing cost and limited focus on agriculture and SMEs requires improvement to achieve the goal of wealth circulation and equitable income

				financial intermediations				distribution.
26	2018	Salman Ahmed Shaikh	Role of Islamic Banking in Financial Inclusiveness in Pakistan: Promise, Performance and Prospects	To review the progress in Islamic banking sector in Pakistan in contributing towards an equitable and egalitarian financial system	2006 - 2016	Literature Review Analysis	Discussion: 1. Islamic banking practices in Pakistan 2. Idealism versus realism 3. Financial inclusion and Islamic banking	It is found that high average financing cost and concentration on upper- class individuals and corporate sector is inconsistent with the goal of wealth circulation and equitable income distribution. Moreover, most of the Islamic banking debt-based products are relatively expensive compared to the conventional banking products.
27	2019	Naser Alziyadat and Habib Ahmed	Ethical Decision- Making in Islamic Financial Institutions In Light of <i>Maqasid al-Shari'ah</i> : A Conceptual Framework	To develop a framework to assess the ethical aspects of Islamic financial operations using Al-Raysuni's analysis of Al- Shatibi's work on <i>Maqasid al- Shari'ah</i>	N/A	<i>Shari'ah</i> Jurisprudence Method on the "Plan, Do, Check, and Act" (PDCA) Framework	PDCA: Plan: - Come up with ethical assessment framework Do: - Identify the <i>maslaha</i> and <i>mafsada</i> of the project's outcomes - Identify the five <i>Maqasid al-Shari'ah</i> 's elements	A framework to assess the ethicality of Islamic financial operations is developed using the concepts from the contemporary managerial method of PDCA and Islamic legal methodologies.

							- Determine the intensity of the impact - Assess whether the project's outcomes affect individual or society - Evaluate the level of <i>Maqasid</i> (<i>daruriyat, hajiyyat, and tahsiniyyat</i>) Check: - Do the <i>Shari'ah</i> audit Act: - Provide feedback that can be used in the improvement's plans	
28	2020	Sigit Pramono and Yasushi Suzuki	Growth of Islamic Banking in Indonesia	To study the growth of Indonesian Islamic banking	N/A	Literature Review Analysis	Discussion: 1. Overview of regulatory framework 2. Recent performance of Islamic banking development	It is found that Islamic banks in Indonesia are not given adequate incentives to contribute to Islamic financial deepening. Moreover, they also cannot afford to earn sufficient profits to maintain their franchise reputation and value due to severe competition with conventional banks.

29	2022	Muhammad Nooraiman Zailani, Nurulhuda Mohd Satar and Roza Hazli Zakaria	A Review of Indicators for the Preservation of Wealth (Hifz al-Mal) Based on <i>Maqasid al-Shari'ah</i>	To review the indicators proposed for one of the elements of <i>Maqasid al-Shari'ah</i> , which is the preservation of wealth	N/A	Literature Review Analysis	Indicators suggested for preservation of wealth index: Macro: 1. Purified GDP per capita 2. No of Shariah-compliant stock & Sukuk issuances 3. Zakat fund Collection & Distribution 4. Waqf fund Collection & Distribution 5. Islamic Banks' total assets/all banks' total assets 6. Employment rate under halal job market Micro: 1. Household income through halal medium 2. Investment/ savings in shariah compliant scheme 3. Access to zakat assistance 4. Access to waqf assistance 5. Amount of household money that is borrowed	It is found that many of the indicators proposed by previous literature are not defined according to <i>Shari'ah</i> , and it is recommended to develop indicators that encompass both micro and macro levels.
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							or lent in <i>riba</i> transaction 6. Easy access to <i>halal</i> job	
30	2022	Prasojo Prasojo	Exploring the Relationship Between Intellectual Capital and <i>Maqasid Shari'ah</i> -Based Performance: The Moderating Role of <i>Shari'ah</i> Governance	To study the link between intellectual capital, <i>Shari'ah</i> governance and Islamic bank performance based on the <i>Maqasid</i> sharia index	2014-2018	Dynamic Panel Regression with the Two-Step Generalised Method of Moments	Dependent variable: <i>Maqasid al-Shari'ah</i> index (Education, Justice and Public Interest - 10 performance ratios as in Mohammed and Taib (2015)) Independent variables: 1. Intellectual capital indicator 2. <i>Shari'ah</i> supervisory board quality 3. Number of board of directors 4. Number of the independent board of directors Controlled variables: 1. Total assets 2. Debt-to-equity ratio 3. Return-on-asset ratio	It is shown that higher intellectual capital efficiency, larger board sizes and <i>Shari'ah</i> governance improves Islamic bank performance based on <i>Maqasid Shari'ah</i> . On the other hand, a higher quality of <i>Shari'ah</i> supervisory board and larger independent boards can reduce Islamic bank performance.

							4. Capital adequacy ratio 5. GDP growth per capita	
31	2022	Fahmi Ali Hudaefi and Abdul Malik Badeges	<i>Maqasid al-Shari'ah</i> on Islamic Banking Performance in Indonesia: A Knowledge Discovery Via Text Mining	To explore how Islamic banks in Indonesia promote <i>Maqasid al-Shariah</i> via their published reports	2015-2017	Text Mining	<i>Maqasid al-Shari'ah</i> Objectives: 1. Educating individual 2. Establishing justice 3. Public interest Information associated with <i>Maqasid al-Shari'ah</i>: 1. Being consistent to comply with the <i>Shari'ah</i> 2. Product development 3. Corporate social responsibility 4. Company value 5. Support <i>Maqasid al-Shari'ah</i>	It is shown that Islamic banks in Indonesia are not in line with the <i>Shari'ah</i> .
32	2022	Lucky Nugroho	The Relationship between <i>Maqasid Shari'ah</i> and Profitability Ratio in Islamic Banking Industries Performance	To analyse the moderating link between the return on assets (ROA) ratio with the <i>Maqasid al-Shari'ah</i> ratio.	2012-2018	Panel Data Moderating Regression Model	Dependent variable: <i>Maqasid al-Shari'ah</i> ratio (Average (Profit-sharing ratio + Zakat performing ratio + Equitable distribution ratio))	It is shown that ROA significantly moderates the independent variables on ROA.

							Independent variables: 1. Financing to Deposit Ratio 2. Labour Cost Ratio 3. Promotion Cost Ratio 4. Non-Performing Financing 5. Micro, Small, Medium Enterprises Financing Ratio	
33	2022	Salah Alhammadi	Analyzing the Role of Islamic Finance in Kuwait Regarding Sustainable Economic Development in COVID-19 Era	To investigate Islamic banking and finance's role in achieving socioeconomic justice and attaining <i>Maqasid al-Shari'ah</i>	N/A	Grounded Theory Method (GTM)	IBF Instruments towards post-COVID-19: 1. Emergency support (Short-term) - Zakat - Qardh al-Hassan - Sadaqah - Islamic Microfinance 2. Medium-term support - Islamic crowdfunding - UNDP's impact funding - Smart contracts 3. Reclamation (Long-term) - Awqaf - Social sukuk Smart contracts	It is shown that in the COVID-19 situation, IBF helps in restoring the economy based on <i>Maqasid al-Shari'ah</i> to redevelop economic, social, and environmental welfare.
34	2022	Salah Alhammadi,	Analysing Islamic Banking Ethical	To investigate Islamic banking	2010-2018	Simple Additive	Performance Ratios (<i>Maqasid al-Shari'ah</i>):	It is shown that conventional performance

		Khaled O. Alotaibi and Dzikri F. Hakam	Performance from <i>Maqasid al-Shari'ah</i> Perspective: Evidence from Indonesia	performance based on <i>Maqasid al-Shari'ah</i>		Weighting (SAW), Multiple Attribute Decision Making (MADM)	1. Scholarship/total expenses 2. Research expense/total expenses 3. Training expense/total expenses 4. Publicity expense/total expenses 5. <i>Musharakah</i> and <i>Mudarabah</i> modes 6. Net Income/total assets 7. Zakat/net assets 8. Investment in real economic sector	measurements do not truly reflect Islamic banking's higher ethical objectives, thus create a deficiency in attaining <i>Maqasid al-Shari'ah</i> .
35	2022	Indri Kartika, Kiryanto Kiryanto and Rahayu Nur Cahyaningtyas	<i>Maqasid</i> Sharia-Based Performance Improvement Model: A Case Study in Islamic Banks in Indonesia	To empirically tests and analyze <i>Maqasid al-Shari'ah</i> via Islamic social reporting (ISR) and good corporate governance (GCG)	2012-2018	Structural Equation Model based on Partial Least Square (SEM-PLS)	Dependent variable: <i>Maqasid al-Shari'ah</i> (Education, Justice and Public Interest) Independent variables: 1. Islamic social reporting 2. Islamic corporate governance	It is shown that GCG has a positive effect on <i>Maqasid al-Shari'ah</i> , but not the ISR.

36	2023	Khairunnisa Musari and Sutan Emir Hidayat	The Role of Green Sukuk in <i>Maqasid Al-Shari'ah</i> and SDGs: Evidence from Indonesia	To examine the green sukuk's role in <i>Maqasid al-Shari'ah</i> and sustainable development goals (SDGs) in Indonesia	N/A	Literature Review Analysis	1. Preservation of the five objectives of <i>Maqasid al-Shari'ah</i> 2. Preservation of the environment (<i>Riayatu al-Bi'ah</i>) 3. Preservation of the SDGs	It is found that Green Sukuk can preserve <i>riayatu al-bi'ah</i> and <i>Maqasid al-Shari'ah</i> , as well as support the SDGs for Good Health and Well-Being (Goal 3), Gender Equality (Goal 5), Clean Water and Sanitation (Goal 6), Affordable and Clean Energy (Goal 7), Decent Work and Economic Growth (Goal 8), Industry, Innovation, and Infrastructure (Goal 9), Reduced Inequalities (Goal 10), Sustainable Cities and Communities (Goal 11), Climate Action (Goal 13), and Peace, Justice and Strong Institutions (Goal 16)
37	2023	Muhammad Afif, Tatik Mariyanti, Nanda Septiani and Ellen Dolan	Factor Affecting Employee Motivation to Increase Performance of <i>Shari'ah</i> Bank in Indonesia on Islamic Perspective	To study the impact of job satisfaction, leadership style, and work environment on motivation of the worker to enhance the	2017-2019	Variance-Based Structural Equation Modeling (SEM) Smart Partial Least Squares (PLS) Evaluation	<i>Maqasid al-Shari'ah</i> Variables: 1. Job satisfaction 2. Leadership style 3. Work environment	It is shown that job satisfaction, leadership style, and work environment in accordance with Islamic concepts of <i>Maqasid al-Shari'ah</i> can boom worker and increase the overall Islamic banks' performance.

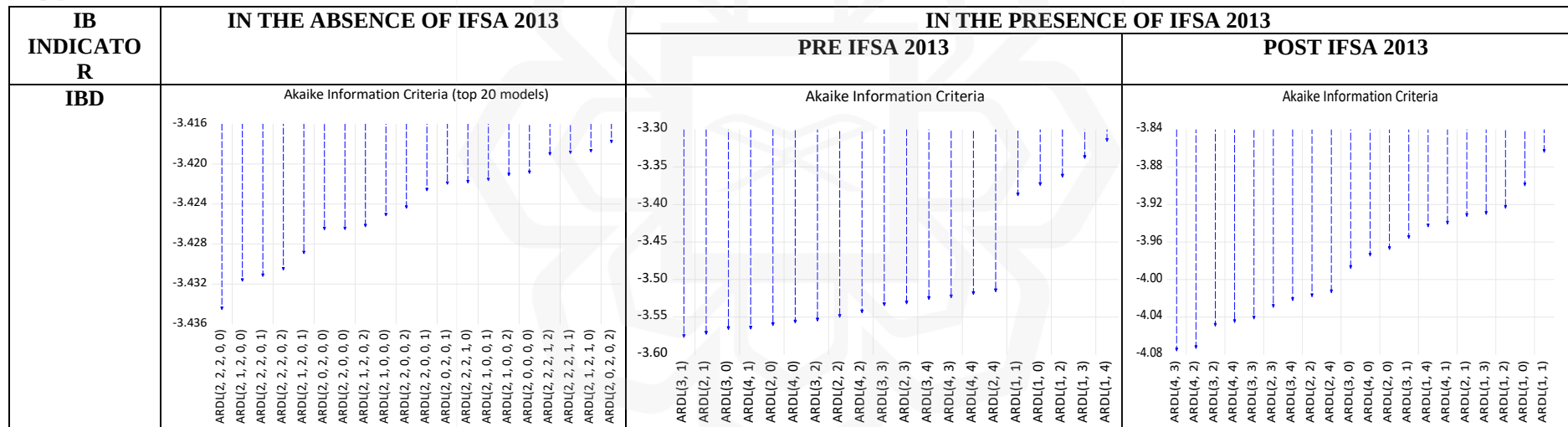
				overall Islamic banks' performance in Indonesia		Tool		
38	2023	Ascarya Ascarya and Atika Rukminastiti Masrifah	Developing <i>Maqasid</i> Index for Islamic CSR: The Case of Ummah's Endowment Fund in Indonesia	To develop the <i>Maqasid</i> index (MI) namely, Dana Abadi Umat (Ummah's Endowment Fund) or MI-DAU for Islamic corporate social responsibility (CSR) in Indonesia	2019-2020	Delphi–Analytic Network Process (ANP) Additive Weighting	Weights of <i>Maqasid al-Shari'ah</i>: 1. Faith protection 2. Intellect protection 3. Life protection 4. Wealth protection 5. Lineage protection Weights of the Main Activities 1. Education 2. Economy of the <i>Ummah</i> (society) 3. Services for <i>Hajj</i> 4. <i>Da'wah</i> 5. Health care 6. Social-religious activities 7. Worshipping facilities 8. Disaster emergency responses	The <i>Maqasid Shari'ah</i> 's priority order and weight are faith protection (0.32), intellect protection (0.219), life protection (0.204), wealth protection (0.171) and lineage protection (0.104). On the other hand, the main activities' priority order and weights are education (0.190), economy of the society (0.167), service for <i>Hajj</i> (0.155), <i>Da'wah</i> (0.124), health care (0.118), social-religious activities (0.097), worshipping facilities (0.085) and disaster emergency responses (0.065).

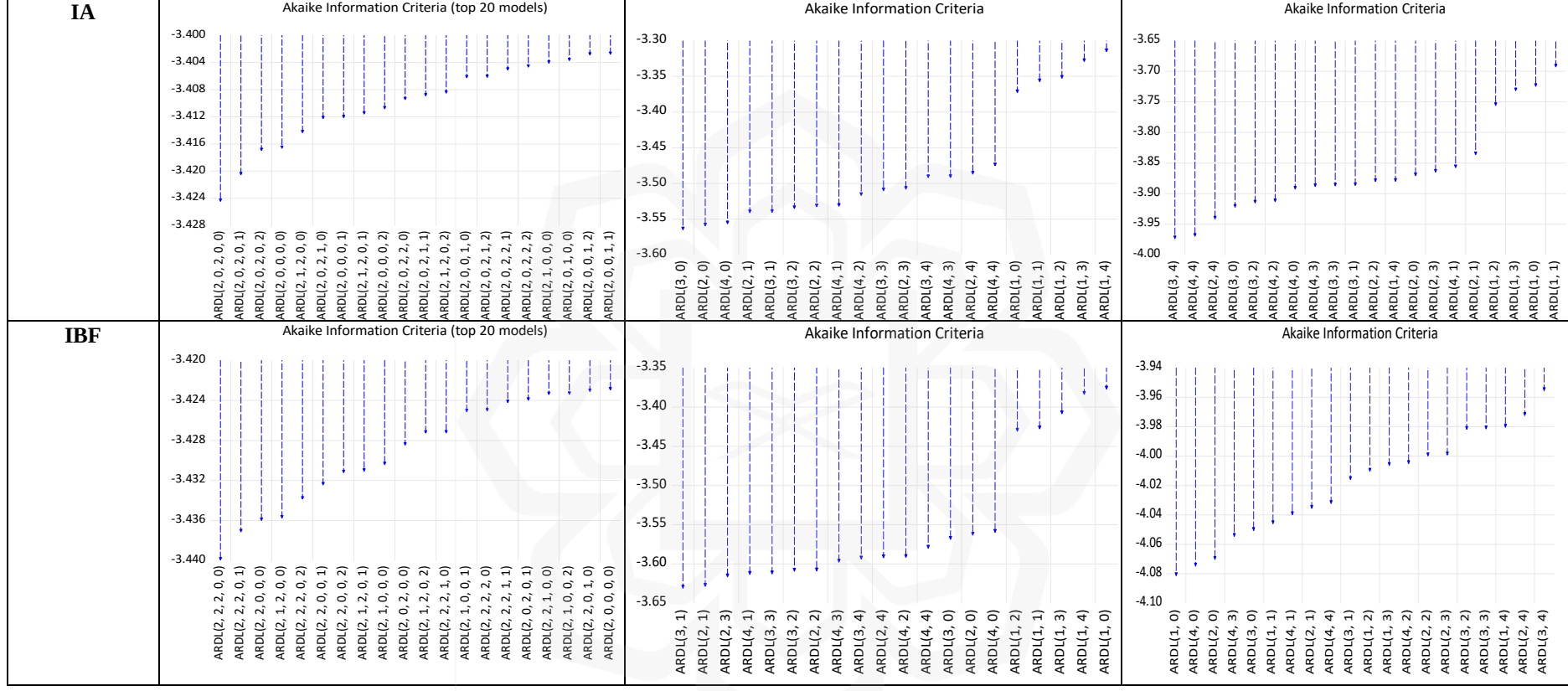
APPENDIX II

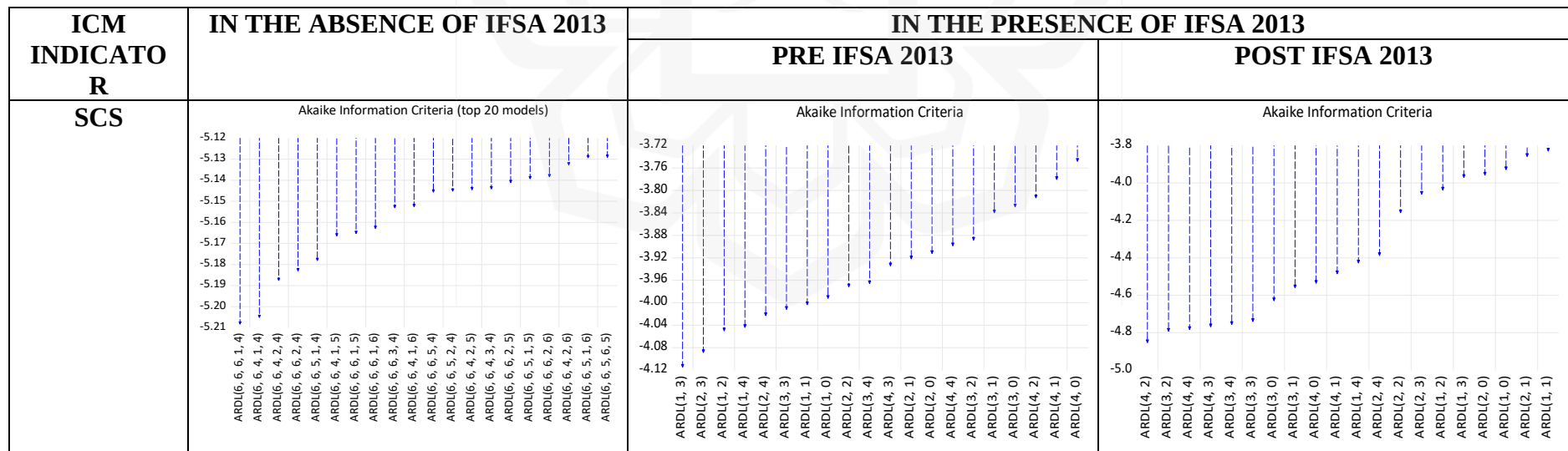
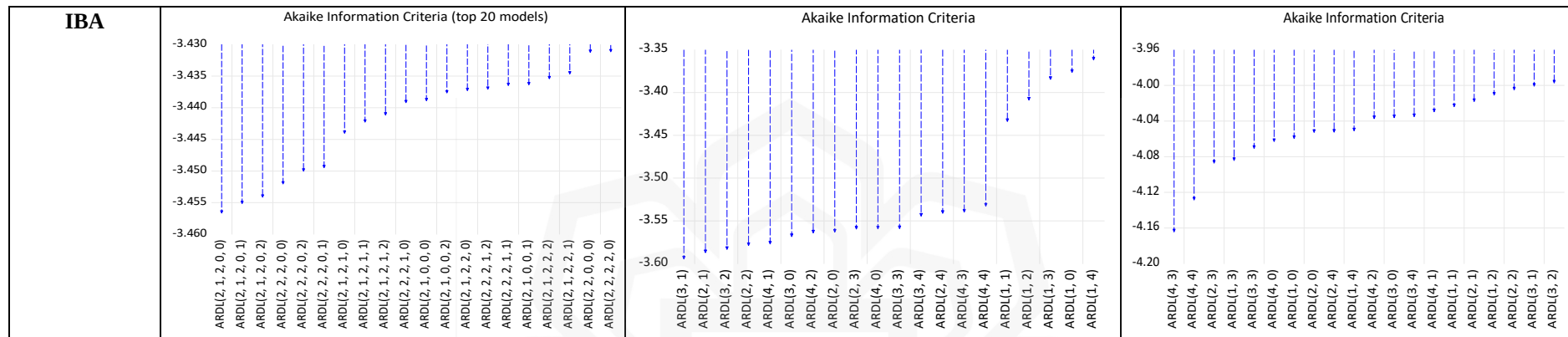
B.1: RESULT FROM OPTIMAL LAG

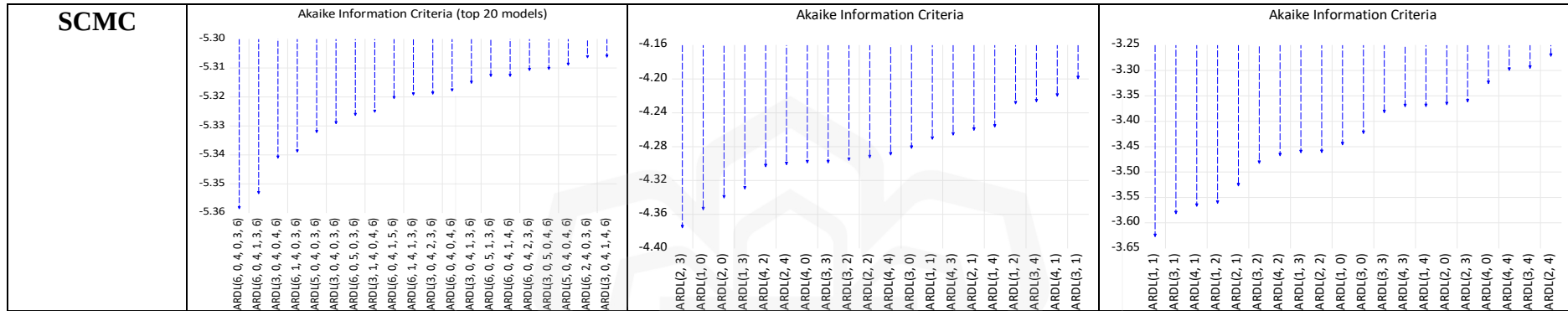
LENGTH IB SECTOR

IBD









B.2: MULTICOLLINEARITY TEST

Sector		Indicators	In the Absence of IFSA 2013	In the Presence of IFSA 2013	
				Pre-IFSA 2013	Post-IFSA 2013
IB	VIF	IBD	1.224742	1.233389	6.365610
		IA	1.095440	1.266586	2.723145
		IBF	1.213344	1.267855	5.171004
		IBA	1.220322	1.255368	3.955611
ICM		SCS	1.300716	2.812425	3.955611
		SCMC	1.517008	5.247007	1.449970

B.3: SERIAL CORRELATION TEST

Sector		Indicators	In the Absence of IFSA 2013	In the Presence of IFSA 2013	
				Pre-IFSA 2013	Post-IFSA 2013
IB	Probability of F-statistics	<i>IBD</i>	0.6165	0.5331	1.0306
		<i>IA</i>	0.7530	0.4009	1.7301
		<i>IBF</i>	0.3142	0.0821	0.7651
		<i>IBA</i>	0.5088	0.6462	0.2732
	Probability of LM	<i>IBD</i>	0.5907	0.5893	0.3666
		<i>IA</i>	0.7372	0.6713	0.1382
		<i>IBF</i>	0.2853	0.9100	0.4184
		<i>IBA</i>	0.4823	0.4820	0.7092
ICM	Probability of F-statistics	<i>SCS</i>	0.3840	0.0142	0.2113
		<i>SCMC</i>	0.3393	0.0503	0.8810
	Probability of LM	<i>SCS</i>	0.3294	0.9798	0.6666
		<i>SCMC</i>	0.2864	0.9303	0.5316

B.4: RAMSEY RESET TEST

Sector		Indicators	In the Absence of IFSA 2013	In the Presence of IFSA 2013	
				Pre-IFSA 2013	Post-IFSA 2013
IB	Probability of F-statistic	<i>IBD</i>	0.8430	0.2150	0.1798
		<i>IA</i>	0.9945	0.1090	0.2082
		<i>IBF</i>	0.6708	0.1596	0.1494
		<i>IBA</i>	0.6991	0.3526	0.0835

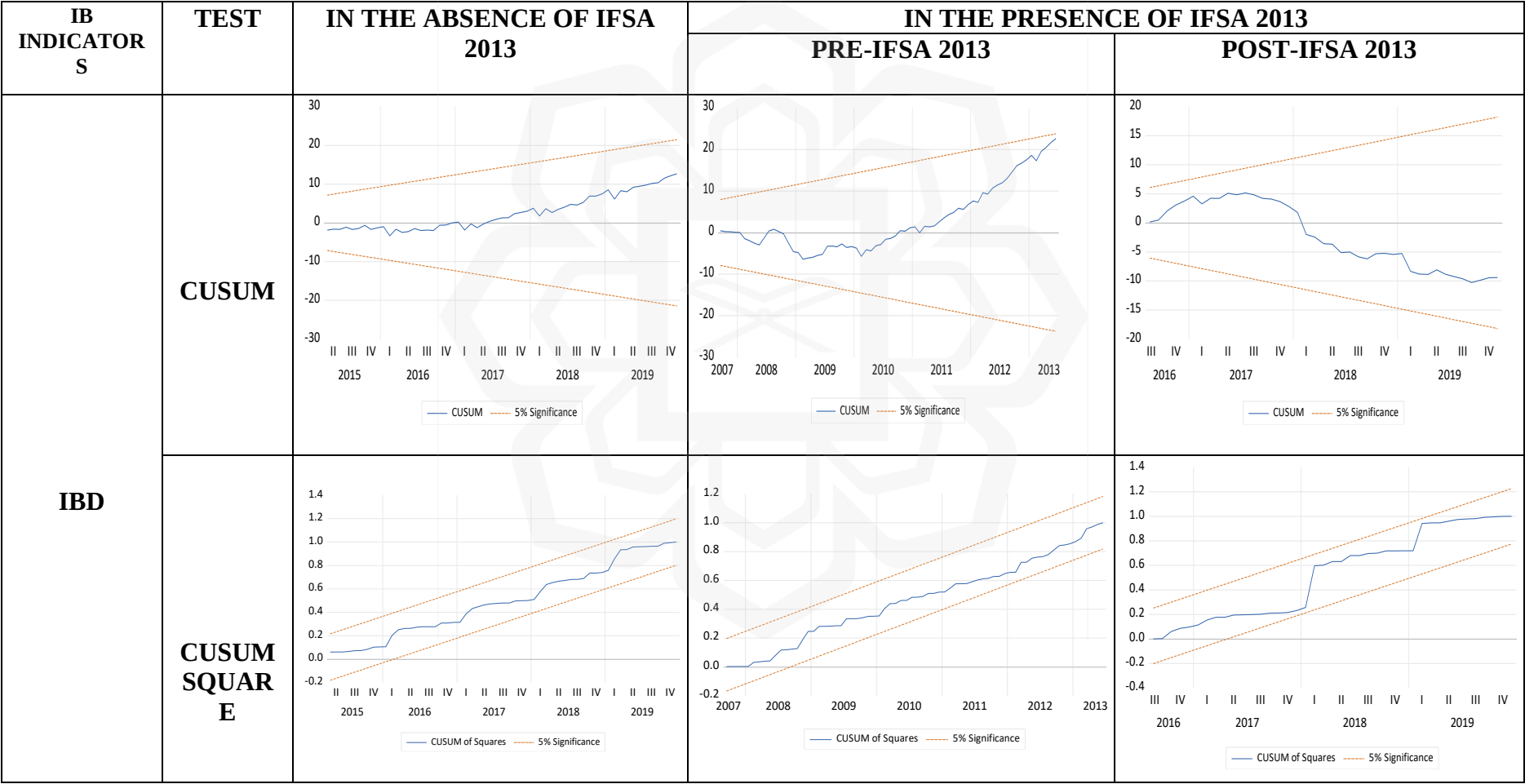
ICM	Probability of F- statistic	SCS	0.8660	0.2013	0.9891
		SCMC	0.3978	0.8918	0.6487

B.5: HETEROSCEDASTICITY TEST

Sector		IB Indicators	In the Absence of IFSA 2013	In the Presence of IFSA 2013	
				Pre-IFSA 2013	Post-IFSA 2013
IB	Probability of F- statistics	IBD	0.9184	0.5471	0.4289
		IA	0.8315	0.6984	0.9745
		IBF	0.9317	0.7793	0.1299
		IBA	0.9151	0.5587	0.9671
	Probability of Chi- Square	IBD	0.9142	0.7207	0.2227
		IA	0.8246	0.2063	0.7185
		IBF	0.9281	0.7108	0.1258
		IBA	0.9109	0.7090	0.8331
ICM	Probability of F- statistics	SCS	0.9342	0.8504	0.7106
		SCMC	0.2867	0.8271	0.1512
	Probability of Chi- Square	SCS	0.8149	0.4366	0.7524
		SCMC	0.2780	0.5891	0.5096

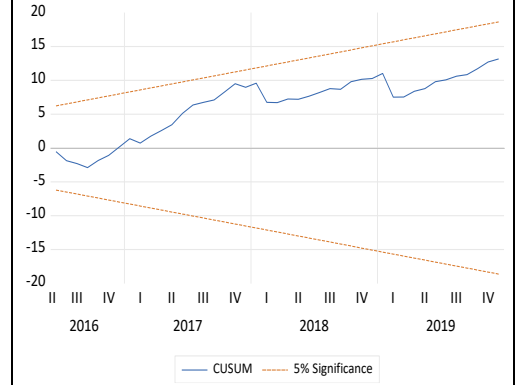
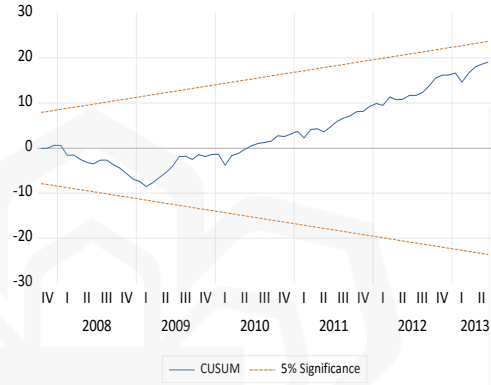
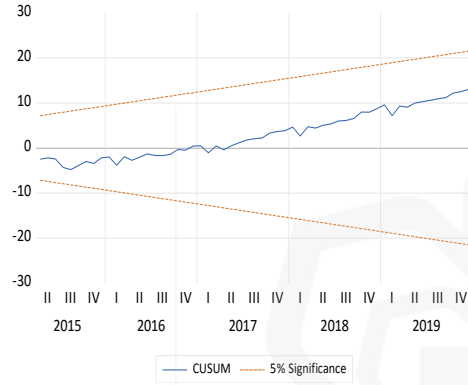
B.6: CUSUM AND CUSUM SQUARE

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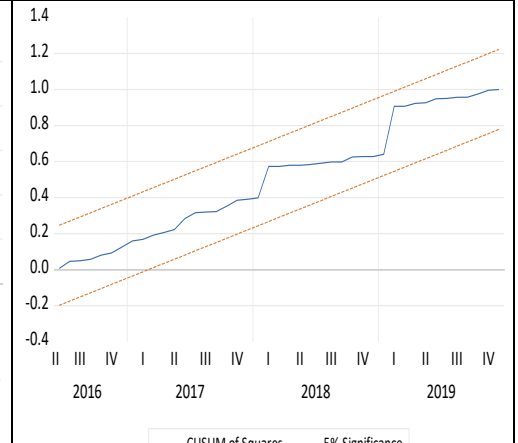
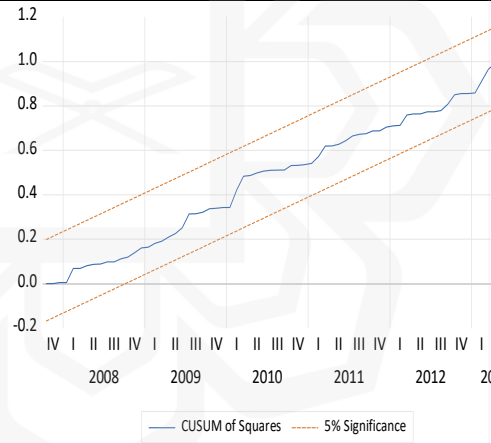
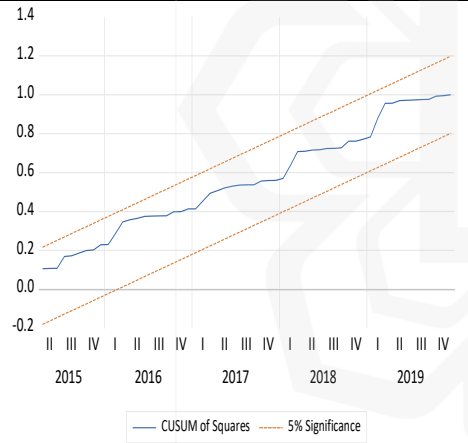


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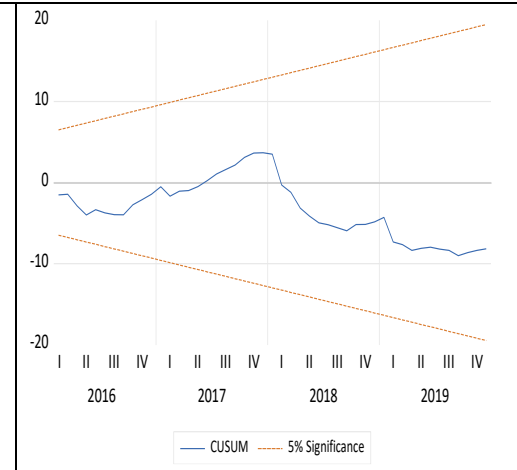
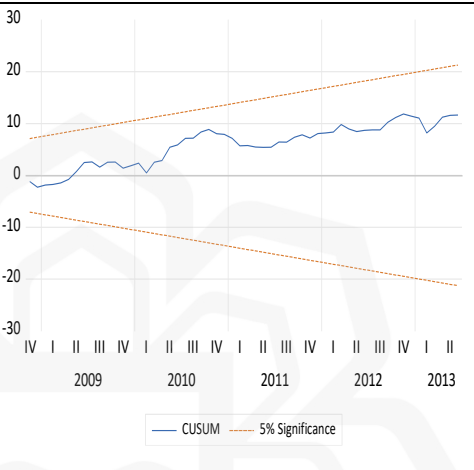
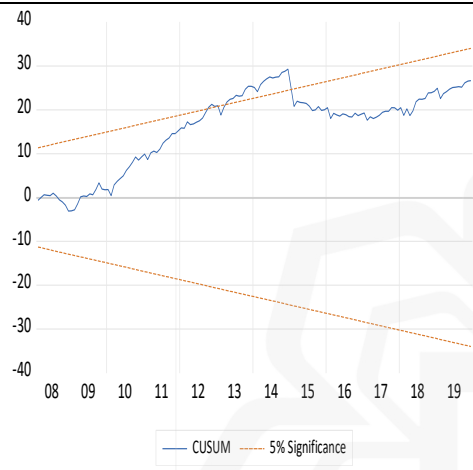


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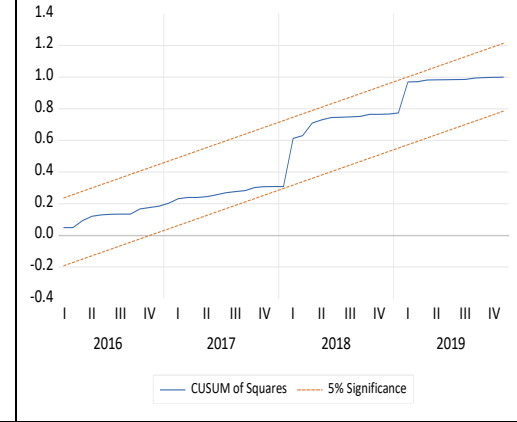
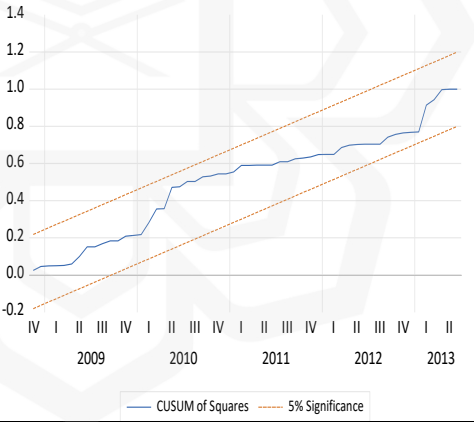
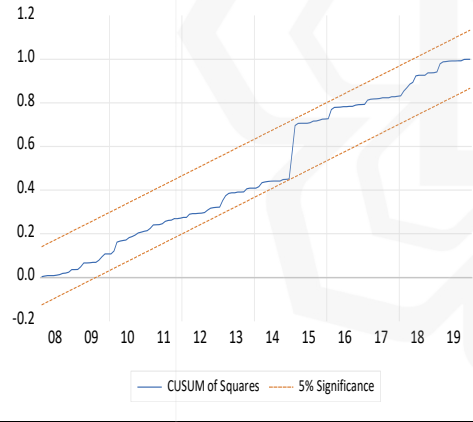


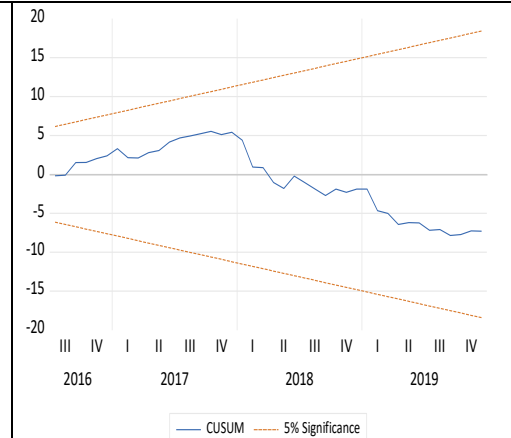
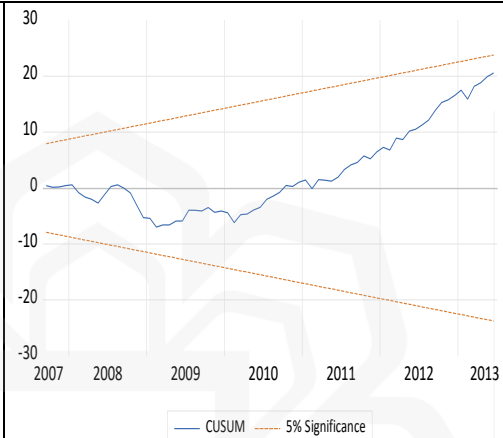
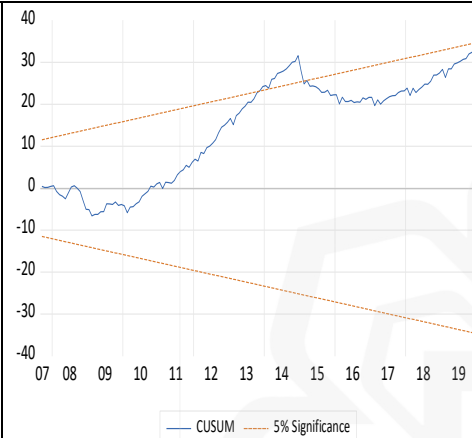
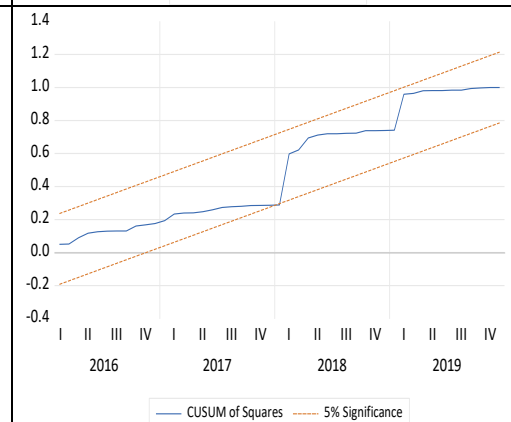
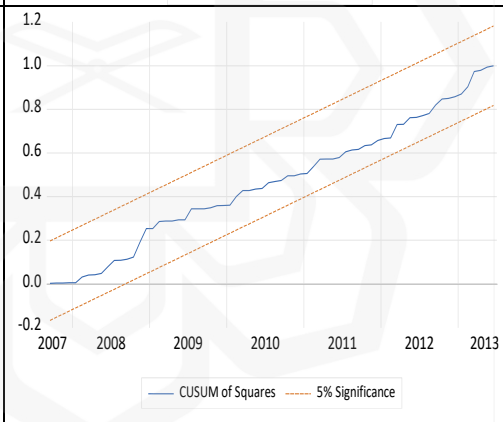
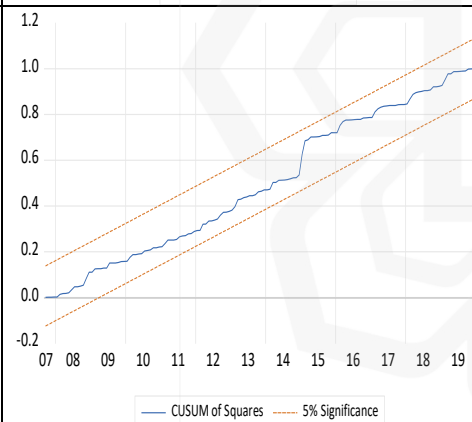
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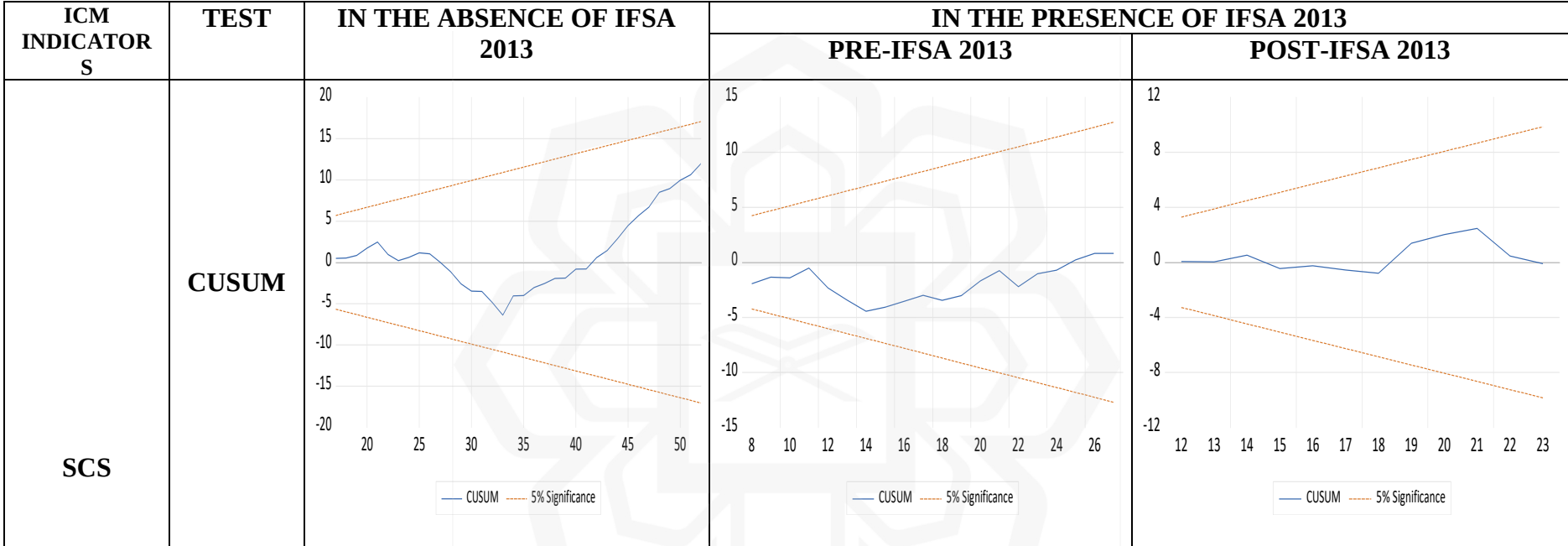


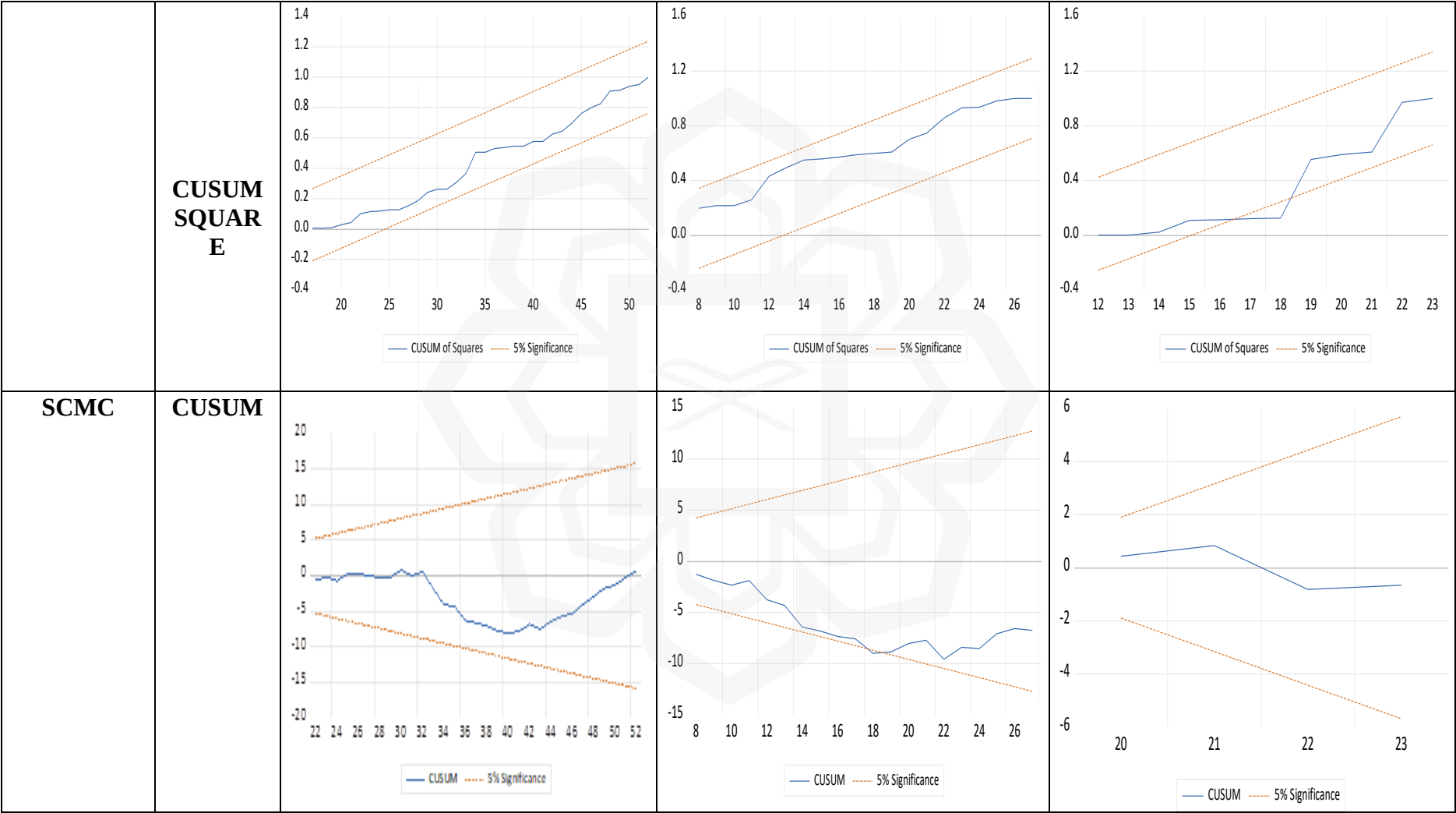
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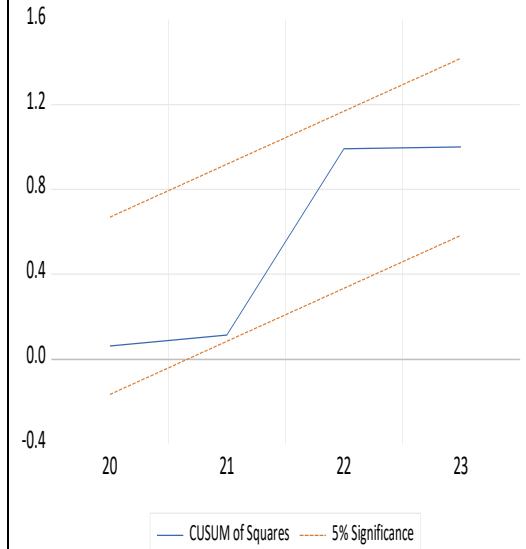
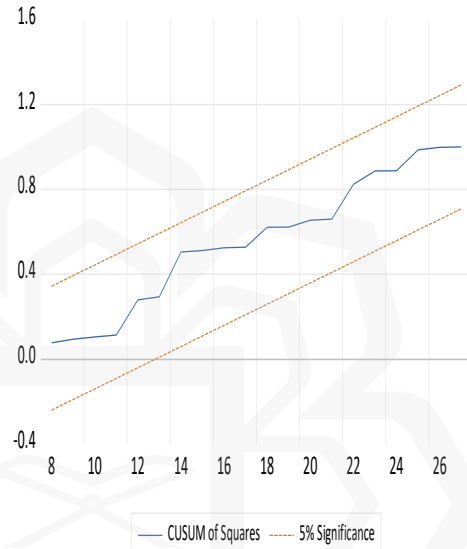
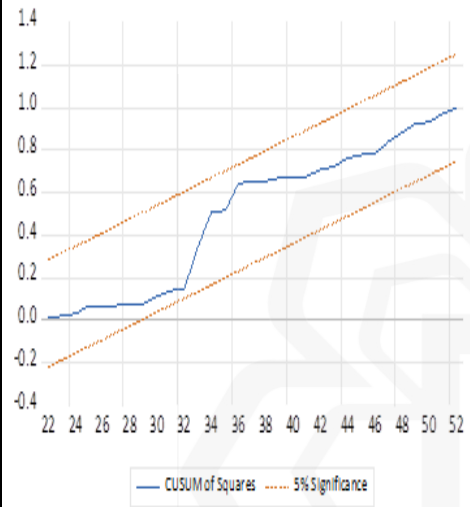


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APPENDIX III

C.1: INTERVIEW QUESTIONS

Research Topic: “The IF-Growth Nexus: Empirical Evidence from Malaysia”

There are three research objectives of the study.

1. To investigate the existing state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs.
2. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
3. To view the IF-growth nexus from the perspectives of Islamic economic.

The purpose of this interview is to support the empirical findings for research objective 1 and 2, and to explore the answer for research objective 3. Therefore, this interview will be divided into 4 sections. The first section will ask about the concepts of IF in general and economic development from Islamic perspectives. The other sections will be focusing on IB, Islamic capital market, and Takaful sectors, respectively.

Interview Questions

Part 1: IF and Economic Development

Objective of part 1 is to answer research objective 3: To view the IF-growth nexus from the perspectives of Islamic Economics.

1. What does economic growth or progress mean from the Islamic perspective? Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy?

2. Are there any alternative or additional metrics that you could suggest measuring the performance of an economy based on Islamic values? If yes, kindly identify it/them with a brief description.

3. To what extent do you think IF satisfies the *Maqasid al-Shari'ah* and fulfills Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit- maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society?

4. It is argued that Islamic economics is being developed according to Islamic values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?

5. How do you think IFSA 2013 impacts economic growth in the short and long run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions.

6. Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions?

7. Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by Bank Negara Malaysia (BNM), has impacted the IF-growth nexus in a meaningful way? Why or why not?

8. There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on?

9. Could VBI have been implemented in a better way by Bank Negara Malaysia? If yes, what would those improvements be?

10. Do you think that the general public understand Islamic economics as well as they understand IF? How can IF be improved?

11. What is the impact of Covid-19 to the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?

Part 2, 3 and 4 are constructed to answer research objectives 1 and 2 as follows:

1. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
2. To view the IF-growth nexus from the perspectives of Islamic economic.
- 3.

Part 2: IB and Economic Development

1. Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes?

2. Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions.

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3. Does the Islamic financial sector, particularly the IB sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG?
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4. Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not?
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5. Is IB sector now changing to include more social narratives?
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Part 3: ICM and Economic Development

1. Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not?
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2. Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG?
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3. Do you think ICM has moved more towards finance or economics?

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4. In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions.

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5. Do you think the ICM is now changing to include more social narratives?

Part 4: Takaful and Economic Development

1. In what way do you think has the Takaful industry contributed to the economic growth of the country?

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2. Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not?

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3. Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG?

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4. Do you believe the Takaful sector is now changing to include more social narratives?

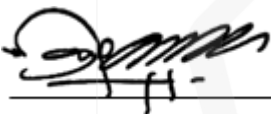
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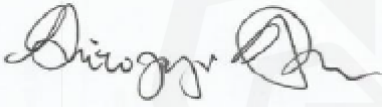
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C.2: RESULTS FROM INTERVIEW QUESTIONS

C2.1: DR. ZAHARUDDIN ABD RAHMAN

Research Topic: “The IF-Growth Nexus: Empirical Evidence from Malaysia”

There are three research objectives of the study.

1. To investigate the existing state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs.
2. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
3. To view the IF-growth nexus from the perspectives of Islamic economic.

The purpose of this interview is to support the empirical findings for research objective 1 and 2, and to explore the answer for research objective 3. Therefore, this interview will be divided into 4 sections. The first section will ask about the concepts of IF in general and economic development from Islamic perspectives. The other sections will be focusing on IB, Islamic capital market, and Takaful sectors, respectively.

Interview Questions

Part 1: IF and Economic Development

Objective of part 1 is to answer research objective 3: To view the IF-growth nexus from the perspectives of Islamic Economics.

1. What does economic growth or progress mean from the Islamic perspective? Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy?

From Islamic perspective, economic growth or progress means that the wellbeing of the society is being taken care of. Therefore, the ways to measure economic growth in Islamic economy is flexible as long as it takes care of the society's wellbeing. While the metrics like GDP, real GDP, real GDP per capita, and industrial production index are not wrong to be used to reflect the economic growth, Islamic economy should put Zakat as the benchmark as it takes care of the eligible recipients, and also Waqf (the ancient way of living during Prophet Muhammad era). For non-Muslim, it should be referred to other taxes like Jizyah and so on. Besides, new things/proposals can always be presented to the authority to be discussed and executed as practiced by the *Sahabah*.

2. Are there any alternative or additional metrics that you could suggest to measure the performance of an economy based on Islamic values? If yes,

kindly identify it/them with a brief description.

Yes, as discussed in Question 1. Zakat and Waqf are good metrics to measure the performance of an economy based on Islamic values.

3. To what extent do you think IF satisfies the *Maqasid* al-Shari'ah and fulfills Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit-maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society?

IF involves two different business entities; 1) Private institutions such as Islamic banks and Takaful companies, 2) Government agency such as Federal Land Development Authority (FELDA), Majlis Amanah Rakyat (MARA), Perbadanan Usahawan Nasional Berhad (PUNB), Malaysian Global Innovation and Creativity Centre (MAGIC), Unit Peneraju Agenda Bumiputera (TERAJU) and Tabung Ekonomi Kumpulan Usaha Niaga (TEKUN) Nasional, in which Islamic financing are disbursed. For the private institutions, they achieve profit maximization in a right way (profit-optimization) as a nature of business to serve shareholders, and it is not *haram* Islamically. Meanwhile, the government agencies are striving to serve the public/society, in which directly fulfill the *Maqasid Shari'ah*. So far, IF does affect the society positively through these channels.

4. It is argued that Islamic economics is being developed according to Islamic values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?

As referred to the previous question, IF currently has progressed further to successfully develop in accordance with Islamic economic values.

5. How do you think IFSA 2013 impacts economic growth in the short and long run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions.

IFSA 2013 has brought the IF industry closer to Islamic values, as IFSA 2013 covers more areas than IB Act 1983. It is a good Act, which gives a little more seriousness towards Islamic values, for instance, *Shari'ah* scholars have become more authoritative, and Central bank can amend/update policies that are more *Shari'ah*-compliant. For these reasons, IFSA 2013 is good for economic growth.

6. Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions?

The differences in opinions are inevitable in all areas. For instance, in Islamic teachings, there are 4 *mazhabs* (*Mazhab Hanafi*, *Mazhab Maliki*, *Mazhab Syafi'i*, and *Mazhab Hanbali*) because of the differences in opinions. Another example is in the medical department, where medical professionals are having differences in opinions on vaccine

application during COVID-19. In *IBF*, there are several reasons why there is a tension between practitioners and academicians. First, academicians are too dependable on what is written but in fact, there are so many data that are unpublished by the industry, resulting in ignorance amongst the academicians as they do not know in details about the products. Besides that, they are too realistic compared to the practitioners, who are more flexible as they know that what is more important is practicality. To reduce the tensions, academicians need to be trained and be well-informed on the products that are available in the industry. Meanwhile, the practitioners have to become more business- friendly.

7. Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by Bank Negara Malaysia (BNM), has impacted the IF-growth nexus in a meaningful way? Why or why not?

Yes, that is how the IB industry evolves, in line with the *Maqasid Shari'ah*. VBI and IFSA both indicates the efforts to gradually change the IF to become much better than before, in line with the story of Prophet Muhammad, where he approves gradual changes by not drastically demolishing the idols around the *Kaabah* because of the people's unreadiness. Similar to Khalifah Umar bin Abdul Aziz, who reminds his son that Allah also prohibit liquor in a gradual way. For these reasons, I would not suggest for any good deeds to be implemented in a radical way due to the fact that people will decline it in totality because they are not ready.

8. There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on?

The transition period between 2013 and 2015 is important so that people are ready to it and are well-informed as mentioned before this that a drastic change will lead to the people's avoidance towards the change.

9. Could VBI have been implemented in a better way by Bank Negara Malaysia? If yes, what would those improvements be?

Yes, as there are always new ideas and rooms for improvements, where it happens also during the time of *Sahabah*, where they always propose and present a new idea to improve the system.

10. Do you think that the general public understand Islamic economics as well as they understand IF? How can IF be improved?

I can say that only 5% of the public understands Islamic economics, and unfortunately, there are also some movements (idealists) that condemned IF, and they make the general public more confuse.

11. What is the impact of Covid-19 to the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?

Part 2, 3 and 4 are constructed to answer research objectives 1 and 2 as follows:

1. To analyse whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
2. To view the IF-growth nexus from the perspectives of Islamic economic.

Part 2: IB and Economic Development

1. Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes?

I do not agree with the statement that equity financing is more Islamic than debt financing. There are no *nas* and *dalil* from the Prophet, that states that equity financing is better than debt financing. In Islam, debt is allowable as long as it is manageable. In Islamic financial institutions, they look at the customer's liabilities and eligibilities before approving any loans. Currently, equity financing also is not totally *Shari'ah*-compliant, and more efforts are needed to improve it.

2. Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions.

They are involving in it.

3. Does the Islamic financial sector, particularly the IB sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG?

Yes, VBI is implemented to support ESG and sustainable development goals (SDG), and currently, Islamic financial institutions also implement ESG ratings.

4. Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not?

Yes, as mentioned before, IFSA 2013 has brought the IF industry closer to Islamic values, as IFSA 2013 covers more areas than IB Act 1983. It is a good Act, which gives a little more seriousness towards Islamic values, for instance, *Shari'ah* scholars have become more authoritative, and Central bank can amend/update policies that are more *Shari'ah*-compliant. For these reasons, IFSA 2013 is good for economic growth.

5. Is IB sector now changing to include more social narratives?

IF currently is discussing about Islamic social products. They are finding tunings on their products to become more socially adapted. Not only that, they also have corporate social responsibility (CSR) budget allocation, where they are reaching out the poor to provide help, the media to support Islamic programs, and also students to provide scholarships.

Part 3: ICM and Economic Development

1. Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not?

Yes, as in ICM, those who have money are helping those who are in need of fund (win-win situation). Those who are in need of fund are able to expand their businesses because of the availability of the funds via sukuk, Islamic microfinancing, Islamic crowdfunding, digital assets, P2P, and so on.

2. Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG?

Yes, IF in the west is being promoted as ESG financing or ESG sukuk.

3. Do you think ICM has moved more towards finance or economics?

Finance is a subset of economics. Finance is contributing to both.

4. In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions.

Both play different roles in achieving Islamic economic values and objectives.

5. Do you think the ICM is now changing to include more social narratives?

Yes, they are finding tunings on their products to become more socially adapted.

Part 4: Takaful and Economic Development

1. In what way do you think has the Takaful industry contributed to the economic growth of the country?

There are two types of products: 1) Family Takaful, and 2) General Takaful. General Takaful are normally helping for accidents. For example, if something happens to their assets such as car and motorbike, Takaful will help to fix their assets. Family Takaful

on the other hand, provide funds to the beneficiary of the Takaful participants if they suffer a tragedy. It also involves investment-linked Takaful, which will also contribute to economic growth. Takaful is also creating jobs to the society, and it is adding values to both the participants and businesses.

2. Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not?

Yes, as mentioned before, IFSA 2013 has brought the IF industry closer to Islamic values, as IFSA 2013 covers more areas than IB Act 1983. It is a good Act, which gives a little more seriousness towards Islamic values, for instance, *Shari'ah* scholars have become more authoritative, and Central bank can amend/update policies that are more *Shari'ah*-compliant. For these reasons, IFSA 2013 is good for economic growth.

3. Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG?

Yes, currently, Islamic financial institutions also implement ESG ratings.

4. Do you believe the Takaful sector is now changing to include more social narratives?

Yes, they are finding tunings on their products to become more socially adapted.

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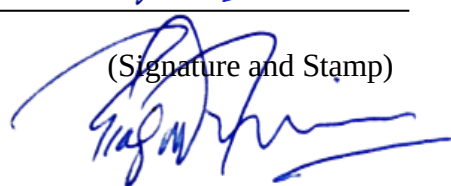
Name: Dr. Zaharuddin Abd
Rahman Position: Managing
Director

Company: Elzar *Shari'ah* Solution Sdn. Bhd.

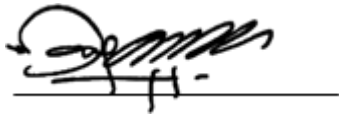
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C.2.2 : ASSOCIATE PROFESSOR DR. UMAR OSENI

Research Topic: “The IF-Growth Nexus: Empirical Evidence from Malaysia”

There are three research objectives of the study;

4. To investigate the existing state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs.
5. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
6. To view the IF-growth nexus from the perspectives of Islamic economic.

The purpose of this interview is to support the empirical findings for research objective 1 and 2, and to explore the answer for research objective 3. Therefore, this interview will be divided into 4 sections. The first section will ask about the concepts of IF in general and economic development from Islamic perspectives. The other sections will be focusing on IB, Islamic capital market, and Takaful sectors, respectively.

Interview Questions

Part 1: IF and Economic Development

Objective of part 1 is to answer research objective 3: To view the IF-growth nexus from the perspectives of Islamic Economics.

1. What does economic growth or progress mean from the Islamic perspective? Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy?

From the Islamic perspective, economic growth or progress is when the economy provides equal opportunities to all citizens to lawfully acquire, manage and dispose of wealth while preserving the overarching higher objective of *hifz al-mal* (protection of wealth). This promotes equal access to wealth and encourages fair distribution of resources. With some key Islamic social finance institutions such as *zakah*, *sadaqah* and *waqf*, wealth is redistributed across different cadres of the society, and everybody tends to benefit. For maximal economic growth, wealth should not be concentrated in few hands. In my view, while GDP/real GDP and other conventional metrics could be relevant in measuring economic growth from the Islamic perspective, there should be more to the analysis. To show the overall health of the economy and progress recorded so far, it is pertinent to consider both the societal and individualized metrics. For instance, even if a country has a high real GDP, how does that translate to the individuals and resources available to them? Therefore, there is a need to triangulate the existing notable metrics of economic growth such as consumer price index (CPI) with such other metrics that measure people's access to economic resources and opportunities. The role of the government is to provide such opportunities while it is

left for individuals to maximize such.

2. Are there any alternative or additional metrics that you could suggest measuring the performance of an economy based on Islamic values? If yes, kindly identify it/them with a brief description.

As discussed above, CPI is often used, and it is more realistic than real GDP. Other metrics could be developed to reflect the opportunities provided to the people. Real GDP can measure the value of good and services produced by an economy but in a globalized world, such goods and services may be imported without any benefit to the home country. Therefore, there should be some metrics that would measure the economic opportunities provided by the government to the people in a specified period.

3. To what extent do you think IF satisfies the *Maqasid al-Shari'ah* and fulfills Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit- maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society?

IF generally satisfies *Maqasid al-Shariah*. The Islamic economic goals fulfil the *Maqasid al-Shariah* with particular reference to *hifz al-mal* (preservation of wealth). IF cannot blindly adopt profit maximization objective without ensuring it infuses the element of value-based intermediation. The term often used is “principles before profit”. IF can target profits but not at the expense of core Islamic economic principles. As a matter of fact, profit maximization should never be the objective of IF, rather profit making should be prioritized within the purview of overarching principles established in Islamic law. The unique economic mandate of IF should be to promote financial inclusion and provide Shariah-compliant alternative to the domineering attitude of conventional finance through sustainable and consumer-friendly alternatives. If the IF-growth nexus is positive, then the society will benefit more. As seen in some jurisdictions, even non-Muslims prefer to opt for IF products and services, as they feel such products are more sustainable and risks associated with such financing are effectively shared rather than fully transferred to the customers.

4. It is argued that Islamic economics is being developed according to Islamic values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?

The development of IF is still work in progress, but significant strides have been recorded in the past five decades. To a large extent, I would agree that IF has successfully developed in accordance with Islamic economic values but there is always room for improvement. IF should always seek to implement the original value proposition of Islamic economics where it does not only provide products and services for financial intermediary but also ensure it institutionalize core principles of Islamic social finance to bridge the gap between the rich and the poor and ensure people have equal access to economic resources.

5. How do you think IFSA 2013 impacts economic growth in the short and long run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions.

In my opinion, IFSA 2013 as a comprehensive legislation has engendered economic growth in Malaysia. It has brought the IF industry closer to Islamic values, particularly with its Shariah governance provisions which have further streamlined the provisions of the Central Bank of Malaysia Act 2009, provisions on consumer protection and dispute resolution. Perhaps, the most important aspect that impacts economic growth is the introduction of the investment account which has led to the Investment Account Platform (IAP). The IAP has supported economic growth through the support of many SMEs in Malaysia.

6. Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions?

As an academic and a practitioner, I do not see any tension; what is required is mutual understanding. While the academics often idealize in their ivory tower, the practitioners are faced with the reality of executing deals which sometimes may not conform to the original ideals of IF; hence, may need to be modified. If there is a perceived tension between practitioners and academics, what needs to be done is to create a think-tank comprising both groups to serve as an advisory group to the regulatory and supervisory authority in the country. Through deliberations at the think-tank, the two groups will understand themselves better.

7. Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by Bank Negara Malaysia (BNM), has impacted the IF-growth nexus in a meaningful way? Why or why not?

The VBI initiatives have the potentials of positively impacting the IF-growth nexus. However, it is pertinent to point out that the VBI initiatives are growth-focused. The initiatives are more focused toward realizing the full potentials of IF which is beyond just economic growth. They contribute to the element of self-discipline on the part of Islamic banks. While considering the four underpinning thrusts of VBI – entrepreneurial mindset, community empowerment, good self-governance, and best conduct, the most important thrusts for that would directly impact the IF-growth are entrepreneurial mindset and community empowerment while the remaining two could potentially provide some ancillary support to the IF-growth nexus. One could therefore say that since BNM issued the “Value-based Intermediation Financing and Investment Impact Assessment Framework – Guidance Document (VBIAF)”, was issued on 1 November 2019, which is pretty recent, it may be difficult to provide a fair assessment at this stage on the impact of the VBI initiatives on the IF-growth nexus.

8. There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on?)

Financial institutions had to comply with the regulatory prescriptions as contained in IFSA 2013. Some of the new regulatory measures were not to take effect immediately,

as some were delayed allowing the financial institutions to adjust to the new law and regulatory environment. For instance, marketing approaches had to comply with the business conduct and consumer protection requirements of IFSA (as per Part IX of IFSA) which were based on best practices and not necessarily intended to create shocks in the market.

9. Could VBI have been implemented in a better way by Bank Negara Malaysia? If yes, what would those improvements be?

It is still at the early stage to assess the extent of VBI implementation. While it is a great policy on paper, a proper assessment of its implementation will only be seen after few years (e.g. 5 years) of its implementation.

10. Do you think that the general public understand Islamic economics as well as they understand IF? How can IF be improved?

Not really. There is a need for more financial literacy and education to be spearheaded by the regulator and the financial institutions. Other stakeholders could be the Islamic religious council through the well-coordinated Friday sermons as well as inclusion of such subjects in the school curriculum of students in secondary schools.

11. What is the impact of Covid-19 to the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?

Part 2, 3 and 4 are constructed to answer research objectives 1 and 2 as follows:

1. To analyze whether there is any difference between the state of each component of financial sector (IB, ICMand Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
2. To view the IF-growth nexus from the perspectives of Islamic economic.

Part 2: IB and Economic Development

1. Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes?

Generally, yes based on the Malaysian experience. With the Investment Account model introduced by BNM and the introduction of the Investment Account Platform, there is

a gradual move towards equity financing. However, there is nothing wrong with debt financing modes provided the debt obligations are properly documented. After all, the longest verse of the Qur'an is *ayat al-dayn* prescribing how debt financing obligations should be properly documented.

2. Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions.

Yes. Islamic financial institutions should be compelled under regulatory prescriptions to be more involved in Islamic social finance. Such involvement promotes the original value proposition of Islamic economics.

3. Does the Islamic financial sector, particularly the IB sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG?

The Islamic financial sector could negatively impact the ESG objectives since until recently, there has not been many efforts to ensure transactions are compliant with ESG objectives. There has been too much focus on Shariah compliance, which is of course, the hallmark of IF. However, a further probe into Shariah compliance reveals the need to ensure every product or service fulfils the *Maqasid al-Shariah* requirements which promote ESG. Shariah scholars do not always focus on such aspects but as seen in some Sukuk transactions, there is a gradual focus on the ESG objectives. With the VBI and other initiatives introduced by the Securities Commission, there is a gradual move towards emphasizing the ESG objectives in the Islamic financial sector.

4. Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not?

Yes. Examples given earlier include the IAP which has spurred growth among SMEs in Malaysia.

5. Is IB sector now changing to include more social narratives?

Yes. This is seen in the continuous emphasis on ESG, increasing importance of Islamic social finance, as well as the VBI strategy introduced by BNM.

Part 3: ICM and Economic Development

1. Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not?

Yes, from the financial sector and the specific roles of Islamic banks. However, IFSA

is not meant to regulate the ICM in Malaysia. The laws that regulate the ICM in Malaysia are the Capital Markets and Services Act 2007 and the Securities Commission Malaysia Act 1993 as well as numerous regulations issued pursuant to these laws.

2. Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG?

Yes, through the numerous interventions from the Securities Commission of Malaysia. For instance, the Securities Commission has introduced the SRI Sukuk and Bond Grant Scheme with the objective of incentivizing and encouraging more issuers to finance green, social and sustainability projects through the issuing of sukuk under its unique SRI Sukuk Framework. Such pioneering regulatory efforts will spur significant ESG-enabled growth in the Islamic capital market.

3. Do you think ICM has moved more towards finance or economics?

It is a bit of both, as the ICM sits within the ambit of the financial market, but the funds raised are meant to finance the real economy in most cases.

4. In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions.

One may not ordinarily conclude that one sector is better than the other. Both sectors have their potentials as they both contribute to the promotion of Islamic economic values. Both sectors could be regarded as complementary in their efforts toward achieving Islamic economic values.

5. Do you think the ICM is now changing to include more social narratives?

Yes, as explained above through numerous frameworks introduced to promote ESG in sukuk issuances.

Part 4: Takaful and Economic Development

1. In what way do you think has the Takaful industry contributed to the economic growth of the country?

Unlike other sectors of the Islamic financial sector, takaful has not experienced significant growth globally. However, it has contributed its own humble quota to economic growth of the country. I will assess such growth from the perspective of product structure of takaful as compared to the conventional insurance product. When takaful products provide some surpluses as well as significant discounts to individuals and SMEs at the end of the financial year, then such clients will have more money to spend on other developmental needs.

2. Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not?

Yes, through enhanced regulatory framework. All the initiatives contained in IFSA will have positive impact on economic growth and development.

3. Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG?

The VBI strategy introduced by BNM also covers the takaful sector; hence, the takaful sector has positive impact on ESG objectives. The pandemic has also engendered the general move toward ESG in Malaysia. In its recent Exposure Draft on Climate Risk Management and Scenario Analysis, BNM emphasized the requirements and expectations on the part of financial institutions, including Takaful operators, to strengthen their efforts toward managing financial risks that emanate from climate change.

4. Do you believe the Takaful sector is now changing to include more social narratives?

There is a general move towards emphasizing on social aspects in every sector of the IF industry. The very basis of takaful includes the social narratives as some of the underlying Shariah principles such as *tabarru'* and *ta'awun* all have social dimensions.

Answered by:



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Name: Dr. Umar A. Oseni

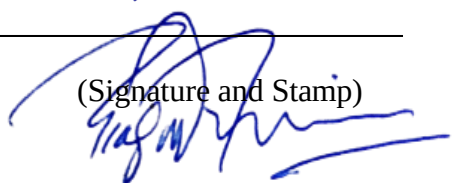
Position: CEO

Department: International Islamic Liquidity Management Corporation

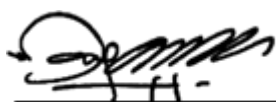
Disclaimer: The views expressed here are those of the interviewee and do not necessarily reflect the views or policies of the International Islamic Liquidity Management Corporation. The responses do not constitute legal advice with respect to any matter or set of facts and may not be relied upon for such purposes.

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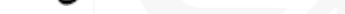


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Associate Prof. Dr. Maya Puspa
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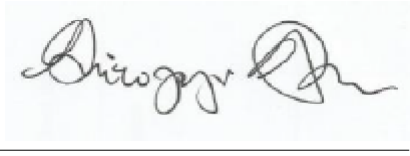
Associate Prof. Dr. Azman
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Prof. Dr. Gairuzazmi Mat Ghani
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C.2.3 : DR. AHMED FIRAS

Research Topic: “The IF-Growth Nexus: Empirical Evidence from Malaysia”

There are three research objectives of the study;

7. To investigate the existing state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs.
8. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
9. To view the IF-growth nexus from the perspectives of Islamic economic.

The purpose of this interview is to support the empirical findings for research objective 1 and 2, and to explore the answer for research objective 3. Therefore, this interview will be divided into 4 sections. The first section will ask about the concepts of IF in general and economic development from Islamic perspectives. The other sections will be focusing on IB, Islamic capital market, and Takaful sectors, respectively.

Interview Questions

Part 1: IF and Economic Development

Objective of part 1 is to answer research objective 3: To view the IF-growth nexus from the perspectives of Islamic Economics.

1. What does economic growth or progress mean from the Islamic perspective? Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy?

Economic progress from the Islamic perspective does not focus uni-dimensionally on production growth, rather it is also about protection and preservation of wealth and resources in the country and ensuring the benefits are well-distributed amongst the society, as wealth should not be concentrated in the hands of the few. GDP growth is not a sufficient measure for economic progress as it does not reflect the wealth distribution and protection of resources. For instance, a high GDP does not indicate that the wealth is distributed fairly amongst the society and that that quality of life is improved. GDP is only measuring the country's production, not wealth distribution.

2. Are there any alternative or additional metrics that you could suggest to measure the performance of an economy based on Islamic values? If yes, kindly identify it/them with a brief description.

The main framework of Islamic economy is to achieve *Maqasid Shari'ah*. For this, a better indicator for economic progress can be Human Development Index (HDI), and Gini coefficient.

3. To what extent do you think IF satisfies the *Maqasid* al-Shariáh and fulfills Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit- maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society?

The basic role of the financial services industry is to collect the savings of the community and then direct that capital towards boosting the expansion of feasible businesses as well as expansion of purchasing power of consumers. What is needed for the industry is an ethical and moral framework for prioritizing such allocation of capital – and Islamic economics provides that in the form of *Maqasid* al-Shariáh. For instance, IF allows for the protection of religion as it permits people to do business and trade in a *Shari'ah*-compliant manner, thus protection them from sinning. IF also leads to the protection of life as it practices *Ihsan* in dealing with people, and it also prohibits *Gharar*, *Riba*, and gambling. For instance, Islamic banks offer a restructuring of repayment to the people who have financial issues, especially during Covid-19, where they got a free extension of repayment without a compounding interest, which then reduce the anxiety and suicidal issues amongst the society on the financial issues. Theoretically, IF should reduce inflation as well due to the control of money creation, which lead to the protection of wealth. However, it is acknowledged that GDP growth remains the main aim rather than a more comprehensive HDI driven economic objective.

4. It is argued that Islamic economics is being developed according to Islamic values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?

IF in general is based on capitalism, with very strong social protection values. For instance, VBI, sustainable finance, and socially responsible investing (SRI) are some of the efforts in Malaysia to formalize Islamic values into regulation.

5. How do you think IFSA 2013 impacts economic growth in the short and long run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions.

IFSA 2013 is definitely not pushing IF industry further away from Islamic values, as it ensures stability, which is good for economic growth. It also enables investment account as an additional approach to deposit accounts – although this product has not really taken off as expected.

6. Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions?

Definitely there is a tension between the practitioners and the academicians. In the first generation, the divergence was very high because the practitioners of IF came from a fully-conventional finance's background, and their ideas were conflicting with the ideas of the academicians which was very idealistic. In the second generation, the tensions started to reduce because the practitioners are not so strongly influenced by conventional background, rather some of them come from fully IF education

background, while the academicians also included those practicing in the industry. Hopefully, in the third generation, the tension will be further reduced.

7. Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by Bank Negara Malaysia (BNM), has impacted the IF-growth nexus in a meaningful way? Why or why not?

VBI is meant to steer economic progress in the direction of achieving *Maqasid al-Shariah*. However, it is still in stage 1, where the bankers are still figuring out what to do, and it is currently progressing into stage 2, where the ideas are starting to be implemented. It is still a long way to go for VBI to really impact the economic progress significantly.

8. There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on?

During the implementation of IFSA 2013, there is a migration of available products to new products, for instance, *Bai' Bithaman Ajil financing* and *Wadiah deposit* to *Tawarruq*. One of the steps that the financial institutions did to cater this migration is sending standard notifications to the customers through text messages, and emails, so that they are updated and aware of the changes.

9. Could VBI have been implemented in a better way by Bank Negara Malaysia? If yes, what would those improvements be?

Yes, one of the improvements would be in terms of the consistency. During the development of VBI, there was a change of senior leadership in Bank Negara Malaysia (BNM) and they made the decision to hand it over to Association of IB and Financial Institutions Malaysia (AIBIM), and since then, VBI is starting to picking up again. VBI could be implemented in a better way if only there is a consistency in the knowledge transfer despite the change in the leadership.

10. Do you think that the general public understand Islamic economics as well as they understand IF? How can IF be improved?

I think that the general public do understand the fundamental of Islamic economics like the prohibition of unfairness in terms of the wealth distribution, but they do have a lack of understanding in terms of the modern application.

11. What is the impact of Covid-19 to the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?

Islamic banks did not practice compounding when offering the 6-month payment moratorium during Covid-19. There were additional measures announced by various Islamic banks, in which the summary can be found on AIBIM website.

Part 2, 3 and 4 are constructed to answer research objectives 1 and 2 as follows:

1. To analyze whether there is any difference between the state of each component of financial sector (IB, ICMand Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
2. To view the IF-growth nexus from the perspectives of Islamic economic.

Part 2: IB and Economic Development

1. Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes?

Equity financing should only be provided by capital market intermediaries such as investment banks, who raise funds from sophisticated investors (as opposed to savers) who are willing and able to allocate a portion of their capital to bear equity risk and potential losses. Banks are funded by debt-based deposits provided by savers and businesses who need capital preservation and require regular access to their funds. Hence, it would be imprudent to expect such banks to take equity risk when deploying such deposits to provide financing. It would create a huge balance sheet mix-match in terms of risk profiles. As a result, the products in the IB sector are debt-based credit-risk facilities. However, in terms of the Shariah contracts used, there is a mix of debt-based and equity-based contracts, although they are all structured into credit-risk facilities. The Malaysian Islamic Financial Institutions (IFIs)'s financing by *Shari'ah* contract is dominated by *Tawarruq* (69%), and followed by *Ijarah* (12%), Bai' *Bithaman Ajil* (9%), *Musyarakah* (9%), and *Murabahah* (1%). *Tawarruq* is dominated by four of the largest IFIs in Malaysia; 1) Maybank Islamic (45%), 2) CIMB Islamic (12%), 3) Bank Islamic (10%), and 4) RHB Islamic (9%). However, according to BNM Annual Report (2021), the Financial Sector Blueprint 2022-2026 sets out to promote VBI by reducing the concentration on *Tawarruq* and push towards equity-based financing contracts in credit facility.

2. Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions.

I think that Islamic banks should not involve too directly in Islamic social finance as they might harm the original objectives of Islamic social finance. This is because Islamic banks are for-profit-organizations and they are responsible to protect the savings of their depositors. Hence their involvement would be commercial in nature, and we should not commercialize things that should not be commercialized. Islamic economics ecosystem should not be based only on Islamic banks. It is time to grow other institutions that are mandated to focus on Islamic social finance. In fact, the first IF institution in Malaysia was a social enterprise which is Tabung Haji. For instance, there is a recent case where Amanah Lebuhraya Berhad (ALR), a non-profit organization, purchased many toll highways in Malaysia from Gamuda, a profit-maximizing company, to make sure that the toll's price will not go high. The mosque also can be part of social finance's effort too.

3. Does the Islamic financial sector, particularly the IB sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG?

In the past, IB does not cater to ESG objectives, where as long as the projects are legal and does not involve non-Halal sectors, regardless of the environmental, or governance harms such as labour practices and so on, Islamic banks will just provide the funds. Currently, under the United Nations Sustainable Development Goals' framework, which promotes ESG objectives, some Islamic banks in Malaysia have started to cater to ESG objectives, where projects must be based on value-based judgement. For instance, the implementation of VBI has shown that Islamic banks are moving towards ESG. For instance, if a palm oil sector company wants to do a project that has labour abuse, it will not be approved and funded. HSBC Amanah aims to be the first bank to achieve the goal as majority of its financings are VBI-compliant by end of 2022.

4. Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not?

Yes, as mentioned before, IFSA 2013 ensures stability, which is good for economic growth.

5. Is IB sector now changing to include more social narratives?

Yes, the implementation of VBI has shown that the sector is now changing to include more social narratives.

Part 3: ICM and Economic Development

1. Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not?

Yes, as mentioned before, IFSA 2013 ensures stability, which is good for economic growth.

2. Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG?

Just like IB sector, ICM also have started to move towards value-based judgement with frameworks such as SRI.

3. Do you think ICM has moved more towards finance or economics?

Finance and economics are two different things.

4. In your opinion, which sector is better achieving Islamic economic

values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions.

The two sectors are needed as they achieve different goals.

5. Do you think the ICM is now changing to include more social narratives?

Yes, the implementation of green *sukuk* and socially responsible investment (SRI) has shown that the sector is now changing to include more social narratives.

Part 4: Takaful and Economic Development

1. In what way do you think has the Takaful industry contributed to the economic growth of the country?

2. Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not?

3. Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG?

4. Do you believe the Takaful sector is now changing to include more social narratives?

Answered by:



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Name: Ahmed Firas

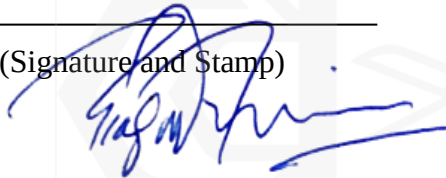
Position: Head of Shariah

Department: Shariah department,
HSBC Amanah Malaysia

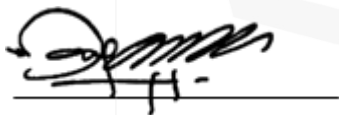
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Associate Prof. Dr. Maya Puspa
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C.2.4 : DR. SYED ADAM ALHABSYI

Research Topic: “The IF-Growth Nexus: Empirical Evidence from Malaysia”

There are three research objectives of the study;

1. To investigate the existing state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs.

2. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
3. To view the IF-growth nexus from the perspectives of Islamic economic.

The purpose of this interview is to support the empirical findings for research objective 1 and 2, and to explore the answer for research objective 3. Therefore, this interview will be divided into 4 sections. The first section will ask about the concepts of IF in general and economic development from Islamic perspectives. The other sections will be focusing on IB, Islamic capital market, and Takaful sectors, respectively.

Interview Questions

Part 1: IF and Economic Development

Objective of part 1 is to answer research objective 3: To view the IF-growth nexus from the perspectives of Islamic Economics.

1. What does economic growth or progress mean from the Islamic perspective? Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy?

2. Are there any alternative or additional metrics that you could suggest to measure the performance of an economy based on Islamic values? If yes, kindly identify it/them with a brief description.

3. To what extent do you think IF satisfies the *Maqasid* al-Shariáh and fulfills Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit- maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society?

In IB, the rulings for trade contracts are fiqh-compliant. Fiqh is an understanding of *Shari'ah*, where it can be changeable to achieve the *Shari'ah*, rules by Allah on the other hand, are fix. We cannot fully confirm the scope of *Shari'ah* as we can only strive our best to understand *Shari'ah*. IF so far does strive to achieve *Shari'ah* through the protection of 5 necessities in the *Maqasid Shari'ah*, which are religion, intellect, life, wealth, and lineage.

4. It is argued that Islamic economics is being developed according to Islamic values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?

5. How do you think IFSA 2013 impacts economic growth in the short and long run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions.

IFSA 2013 is just a law. IFSA alone is not sufficient, and it needs to depend on other things too like SAC rulings, Shariah Standards etc. IFSA 2013 does give opportunity for growth as it provides a good platform to further develop products under equity (risk-sharing).

6. Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions?

There is some tension between academicians and practitioners. Academicians write based on theories, and in order for them to have a better understanding in industry's practices, they must involve actively in the industry too. Meanwhile, the practitioners have to also understand the academicians' theoretical view of IF and actively engage with academicians to see how far or close are the theories from the practice.

7. Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by Bank Negara Malaysia (BNM), has impacted the IF-growth nexus in a meaningful way? Why or why not?

Yes, it impacts the IF-growth nexus positively, and it can become a key performance indicator (KPI) for IF industry.

8. There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on?)

Islamic financial institutions (IFIs) have to comply with the requirements that have been set to adapt with the changes.

9. Could VBI have been implemented in a better way by Bank Negara Malaysia? If yes, what would those improvements be?

10. Do you think that the public understand Islamic economics as well as they understand IF? How can IF be improved?

There is much awareness in IF compared to Islamic economics, especially in terms of riba prohibition, and yet, the fear towards riba is not as strong the fear towards other sins like consuming alcohol and pork. Perhaps the rename of “faedah” or “bunga” to be Riba’ would take away any positive connotation to Riba’.

11. What is the impact of Covid-19 to the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?

Covid 19 impacts the economy of the country which certainly affects IF industry as the IF industry is part of the country's economic system. What was interesting in Malaysia was that the SAC issued a number of resolutions that provides the parameter for IFI to restructure and reschedule their products. This was helpful as it gave clarity on the matter particularly on the moratorium issue and the imposition of *ta'widh*. IFI were then able to take steps to assist their customers to bounce back from the crisis.

Part 2, 3 and 4 are constructed to answer research objectives 1 and 2 as follows:

1. To analyze whether there is any difference between the state of each component of financial sector (IB, ICMand Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
2. To view the IF-growth nexus from the perspectives of Islamic economic.

Part 2: IB and Economic Development

1. Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes?

IB sector currently is primarily based on debt-financing. It is moving towards equity, but it still needs more works, as there are currently lack of successful case studies on equity.

2. Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions.

Currently, there many Islamic banks that have been involving in Islamic social finance such as *waqf*. There are also other specific institutions that manage *waqf*, which Jabatan Wakaf, Zakat dan Haji (JAWHAR), but it is quite conservative compared to Singapore's one.

3. Does the Islamic financial sector, particularly the IB sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG?

4. Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not?

As mentioned before, IFSA 2013 does gives opportunity for growth as it provides a good platform for further developing the products under equity (risk-sharing).

5. Is IB sector now changing to include more social narratives?

IB sector is practicing social narratives, where it is providing financing/capital/fund to the society. However, it is still depending on the debt-based products, and it is necessary to move towards equity (risk-sharing), but I do not think that risk-sharing will be practiced in Islamic banks. Equity financing would be more developed in non-banking industry such as crowd-funding.

Part 3: ICM and Economic Development

1. Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not?

IFSA regulates banking and Takaful industry. Can't think of any example how IFSA has enabled ICM sector to contribute more to economic growth and development.

2. Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG?

3. Do you think ICM has moved more towards finance or economics?

4. In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions.

5. Do you think the ICM is now changing to include more social narratives?

Part 4: Takaful and Economic Development

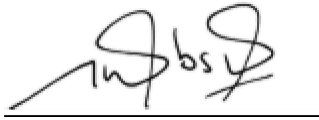
1. In what way do you think has the Takaful industry contributed to the economic growth of the country?

2. Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not?

3. Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG?

4. Do you believe the Takaful sector is now changing to include more social narratives?

Answered by:



(Signature and Stamp)

Name: Dr. Syed Adam Alhabshi

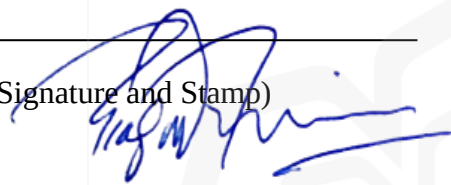
Position: Partner

Department: Raja, Darryl & Loh

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Associate Prof. Dr. Maya Puspa
Rahman College of Economics
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University

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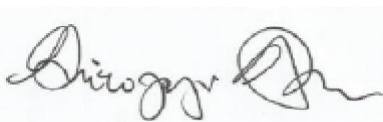
Associate Prof. Dr. Azman Mohd
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C.2.5 : MUHAMMAD AFFIQ ANNUAR

Research Topic: “The IF-Growth Nexus: Empirical Evidence from Malaysia”

There are three research objectives of the study;

4. To investigate the existing state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and long runs.
5. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
6. To view the IF-growth nexus from the perspectives of Islamic economic.

The purpose of this interview is to support the empirical findings for research objective 1 and 2, and to explore the answer for research objective 3. Therefore, this interview will be divided into 4 sections. The first section will ask about the concepts of IF in general and economic development from Islamic perspectives. The other sections will be focusing on IB, Islamic capital market, and Takaful sectors, respectively.

Interview Questions

Part 1: IF and Economic Development

Objective of part 1 is to answer research objective 3: To view the IF-growth nexus from the perspectives of Islamic Economics.

1. What does economic growth or progress mean from the Islamic perspective? Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy?

Islamic economics never got entangled in a secular and materialist worldview. It is based on a religious worldview which strikes at the roots of secularism and value neutrality. To ensure the true well-being of all individuals, irrespective of their sex, age, race, religion or wealth, Islamic economics does not seek to abolish private property, as was done by communism, nor does it prevent individuals from serving their self-interest. It recognizes the role of the market in the efficient allocation of resources, but does not find competition to be sufficient to safeguard social interest. It tries to promote human brotherhood, socio-economic justice and the well-being of all through an integrated role of moral values, market mechanism, families, society, and ‘good governance.’ This is because of the great emphasis in Islam on human brotherhood and socio-economic justice. Capitalism, unlike Islamic economic system and Socialism regards capital as a distinct factor of production worthy of a distinct factor payment i.e. interest. It supports the capitalists to benefit from wealth accumulation without having to put factor i.e. capital at similar risks that the entrepreneur face. In this regard, interest has a huge influence on allocation of resources. It influences the basic economic decisions like what and for whom to produce.

2. Are there any alternative or additional metrics that you could suggest to measure the performance of an economy based on Islamic values? If yes, kindly identify it/them with a brief description.

Islamic economic system uses some distinct features derived through Islamic economic teachings i.e. Interest free economy, moral check on unbridled self-pursuit and provision of socio-economic justice to achieve the goals of Socialism as far as is naturally possible without denying individual freedom and profit motive.

3. To what extent do you think IF satisfies the *Maqasid* al-Shariáh and fulfills Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit- maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society?

4. It is argued that Islamic economics is being developed according to Islamic values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?

5. How do you think IFSA 2013 impacts economic growth in the short and long run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions.

6. Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions?

7. Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by Bank Negara Malaysia (BNM), has impacted the IF-growth nexus in a meaningful way? Why or why not?

8. There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on?

9. Could VBI have been implemented in a better way by Bank Negara Malaysia? If yes, what would those improvements be?

10. Do you think that the general public understand Islamic economics as well as they understand IF? How can IF be improved?

11. What is the impact of Covid-19 to the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?

Part 2, 3 and 4 are constructed to answer research objectives 1 and 2 as follows:

1. To analyze whether there is any difference between the state of each component of financial sector (IB, ICMand Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
2. To view the IF-growth nexus from the perspectives of Islamic economic.

Part 2: IB and Economic Development

1. Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes?

2. Do you think Islamic financial institutions should be more involved inIslamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions.

3. Does the Islamic financial sector, particularly the IB sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG?

4. Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not?

5. Is IB sector now changing to include more social narratives?

Part 3: ICM and Economic Development

1. Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not?

2. Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG?

3. Do you think ICM has moved more towards finance or economics?

4. In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions.

5. Do you think the ICM is now changing to include more social narratives?

Part 4: Takaful and Economic Development

1. In what way do you think has the Takaful industry contributed to the economic growth of the country?

The current rapid development of IF has necessitated the need for *Shari'ah*-compliant alternative to conventional. This alternative, which is based on *Shari'ah* principles may also be referred to as “Islamic insurance”. Takaful operates in line with *Shari'ah* principles and, at the same time, offers the benefits and services equivalent to its conventional counterpart. Therefore, Takaful has evolved in response to the ever-increasing yearning of faith-based financial consumers for an insurance system fulfils their religious beliefs and provides the desired risk coverage for individuals and IFIs.

2. Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not?

Agreed. IFSA facilitates the central bank of Malaysia (BNM) to monitor the safety and soundness of IFIs; the proper functioning of the Islamic financial market with integrity and orderliness; the safety, efficiency and reliability of Islamic payment systems; improving the Takaful Sector in 72 Islamic countries; improving the Takaful Sector the Islamic countries with a total of 62 instruments; and fair, responsible and professional business conducts. BNM is also responsible for ensuring that the rights and interests of IF consumers are well protected.

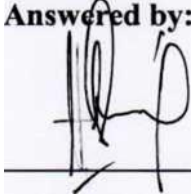
3. Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG?

The IF industry also has been adapting and including environmental concerns in their charter which is evident by the emergence and rapid prevalence of green Sukuk and Shariah compliant green and sustainable investment products. However, when it comes to the Takaful industry, not much can be said in this regard. Insurance companies on the other hand are still working on incorporating ethical and environmentally conscious practices as part of their corporate social responsibility, meanwhile developing disastrous risk management products like climate risk related insurance. Thus, the IF industry should naturally aim towards establishing a diverse and robust ecosystem which is environmentally sustainable as Islam emphasizes on the importance of environment preservation.

4. Do you believe the Takaful sector is now changing to include more social narratives?

Many activities done within the Takaful industry by leveraging any fruitful events to be part of the communities and as they perform the essential function of providing a financial safety net in the event something unexpected happens to you, such as developing a critical illness, getting into an accident, incurring loss of property, or even death.

Answered by:



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Annuar Position: Business

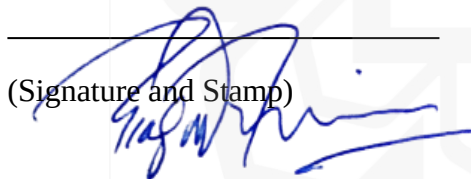
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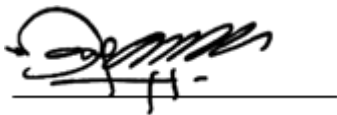
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C.2.6 : AHMAD SHAIFULDIN MAHAMAD SHAHRUDI AND MOHD AIZUDDIN HARES

Research Topic: “The IF-Growth Nexus: Empirical Evidence from Malaysia”

There are three research objectives of the study;

7. To investigate the existing state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia both in short and

- long runs.
8. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
 9. To view the IF-growth nexus from the perspectives of Islamic economic.

The purpose of this interview is to support the empirical findings for research objective 1 and 2, and to explore the answer for research objective 3. Therefore, this interview will be divided into 4 sections. The first section will ask about the concepts of IF in general and economic development from Islamic perspectives. The other sections will be focusing on IB, Islamic capital market, and Takaful sectors, respectively.

Interview Questions

Part 1: IF and Economic Development

Objective of part 1 is to answer research objective 3: To view the IF-growth nexus from the perspectives of Islamic Economics.

1. What does economic growth or progress mean from the Islamic perspective? Currently, the notable metrics used to measure economic growth, or progress, are GDP/ real GDP, GDP/ real GDP per capita, as well as the industrial production index. Do these metrics reflect real progress in an Islamic economy?

To us, economic growth in the context of IF is more than financial metrics. The social aspects of things must be also examined. For example, social welfare and how Islamic products are being used in everyday economy.

2. Are there any alternative or additional metrics that you could suggest to measure the performance of an economy based on Islamic values? If yes, kindly identify it/them with a brief description.

Yes. Perhaps can take a look at addressing social finance i.e. poverty metrics.

3. To what extent do you think IF satisfies the *Maqasid* al-Shari'ah and fulfills Islamic economic goals? Based on the conventional notion of the relationship between the financial sector and economic growth, should IF also pursue the same goals (profit- maximization), or does it have a unique economic mandate? If the IF-growth nexus is positive, how will it affect the society?

When talking about *Maqasid* Shariah, it encompasses all aspects of life. This is where the difference lies with conventional. 1 example is protection of life. This can be associated with takaful. If everyone takes takaful, wealth creation is created thru the benefits of takaful (monetary) to the beneficiaries. This in return will help elevate their social status and help eradicate poverty. This the economic mandate that IF needs to achieve.

4. It is argued that Islamic economics is being developed according to Islamic

values, and IF is meant to be an attempt to practically implement these values. Do you think IF has successfully developed in accordance with Islamic economic values?

From Takaful point of view, yes. Concept of tabbaru @ donations is part of the Islamic values.

5. How do you think IFSA 2013 impacts economic growth in the short and long run? Has it brought the IF industry closer to Islamic values, or has it been pushed further away? Please provide some reasons for your opinions.

From a takaful point of view, changes made in the IFSA have helped spur the growth on takaful of Malaysia. Industry has grown 10-13% Annual. Changes on nomination process and requirements have made it easy for people to distribute wealth more efficiently thus generating more economic impact.

6. Some tension exists between practitioners and academicians in the area of IF and economics. Do you feel these tensions are reducing or rising? What should be done to ease or remove such tensions?

We believe tensions have been gradually reducing. There have been content engagements from academicians and practitioners/ Takaful companies to discuss on IF as a whole. It is worthwhile to appoint academicians to become Independent Directors or Shariah Advisors of Islamic financial institutions so that they can learn and also share their views. The International Council of IF Educators (ICEFE) has also embark on a knowledge sharing journey with practitioners to understand further how IF is practiced.

7. Apart from IFSA 2013, do you feel that the value-based intermediation (VBI) initiatives issued by Bank Negara Malaysia (BNM), has impacted the IF-growth nexus in a meaningful way? Why or why not?

Answers in Part 4.

8. There is a shock in the data during the implementation of IFSA 2013, can you explain how financial institutions had to adapt to the changes (example: How did they change their processes, marketing approach, policies, and so on?

Etika established a working committee to discuss the impact and changes needed to adopt to IFSA 2013. We also engaged an external consultant to assist on preparing a report on the changes and execution needed.

9. Could VBI have been implemented in a better way by Bank Negara Malaysia? If yes, what would those improvements be?

The VBI initiative by Bank Negara Malaysia marks the next step to realising the full potential of IF. It came at the right time where Sustainability Agenda is becoming more apparent in Malaysia. The initiative promotes the application of VBI practices which

will lead to an improved suite of products and services offered by Islamic Financial Institution - for better facilitation of entrepreneurship, community well-being, sustainable environment and economic growth, without compromising on shareholders' returns. The intended outcomes of VBI are broadly similar to the objectives set by frameworks such as the Environmental, Social and Corporate Governance (ESG), Sustainable, Responsible, Impact Investing (SRI) and ethical finance. However, VBI is rooted in Shariah, which determines its underlying values, moral compass and priorities. With the adoption of VBI, practitioners will need to consider the impact of their activities and actions not only to financial consumers, but a wider range of stakeholders.

10. Do you think that the general public understand Islamic economics as well as they understand IF? How can IF be improved?

Don't need to look far, we ourselves would think that IF and economics are the same. IF can be further improved by creating or showing more value and impact. Through this the *Maqasid* Shariah objectives can be achieved Next is to embrace technology. The gap in understanding IF can be reduced through the use of technology. However, products must be simple in nature and easy to understand. Lastly, we need to look at using Waqaf, Donations and Zakat to lift the social wellbeing of the community.

11. What is the impact of Covid-19 to the IF industry? How have the sectors bounced back from the crisis? How have they helped the economy during Covid-19 in Malaysia?

Surprisingly 2020 and 2021 saw growth in the family takaful industry. The pandemic had helped shaped public awareness on importance of takaful coverage especially Medical Coverage. Term Takaful with basic death coverage also saw a rise in new business. The Crisis had led to Takaful Operators rethink on their product design and strategy i.e. exclusion/inclusion of pandemic clauses. Covid also saw how takaful companies went above and beyond their internal policies to honour certificates that had exclusion clauses and some even offered cash assistance to those infected by Covid. Covid-19 and its subsequent events i.e Lockdown have affected Takaful Operations initially. Takaful Operators had to mobilize Work from home arrangements and this halted or delayed Underwriting and Claims processes. For agency force and agents, some TO's had already built remote submission of business and other digitization capabilities We saw agents who were committed and creative in promoting takaful by embracing technology and digital platforms. From investment point of view, Covid-19 had a significant impact to the economy in general which caused sharp corrections in the equity and bond markets. Takaful companies are very much exposed to the market volatility as they invest the assets (contributions earned) to get higher returns. As market prices drop so does the profitability and capital reserves of the company. As with other Financial Institutions, the sector is expected to rebound from the opening of the economy as consumption rises and business activities normalise. Investment returns from equities is expected to improve while the higher yield from the bond market will provide good sustainable returns over the long term. Takaful companies are in a much better position to withstand shocks such as the Covid-19 crisis due to

better capitalisation and robust risk management framework. In terms of how the Takaful industry helps the economy during Covid-19 in Malaysia; The takaful industry is one of the key players in the capital market providing liquidity and supporting the issuance of government and corporate debts. These monies are then used by the government to help fund relieve measures during Covid-19 such as rebates and subsidies to the Rakyat and funding for the healthcare system. Similarly, for corporates looking to raise funding via equity or debt markets for working capital. As one of the institutional investors in Malaysia, the Takaful industry together with pension funds and other local investors provide the country with a strong domestic funding source without needing to rely on offshore borrowings like other developing countries.

Part 2, 3 and 4 are constructed to answer research objectives 1 and 2 as follows:

1. To analyze whether there is any difference between the state of each component of financial sector (IB, ICM and Takaful) and real economic growth in Malaysia, prior and post implementation of IFSA 2013 both in short and long runs.
2. To view the IF-growth nexus from the perspectives of Islamic economic.

Part 2: IB and Economic Development

1. Is the IB sector moving towards debt or equity financing? How successful have the current efforts to move towards equity financing, been? Do you think IB will increase its dependence on equity-based financing modes?

2. Do you think Islamic financial institutions should be more involved in Islamic social finance, such as, microfinance, zakat and waqf fund management; or do you believe such involvement harms the original objectives of Islamic social finance? Please provide reasons for your opinions.

3. Does the Islamic financial sector, particularly the IB sector, have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of IB in Malaysia towards ESG?

4. Do you think IFSA 2013 has enabled the IB sector to contribute more to economic growth and development? Why or why not?

5. Is IB sector now changing to include more social narratives?

Part 3: ICM and Economic Development

1. Do you think IFSA 2013 has enabled the ICM sector to contribute more to economic growth and development? Why or why not?

2. Does ICM positively and significantly contribute to environmental, social and governance (ESG) impact? Why or why not? What about the trends of ICM in Malaysia towards ESG?

3. Do you think ICM has moved more towards finance or economics?

4. In your opinion, which sector is better achieving Islamic economic values and objectives: is it the ICM or the IB sector? Please provide reasons for your opinions.

5. Do you think the ICM is now changing to include more social narratives?

Part 4: Takaful and Economic Development

1. In what way do you think has the Takaful industry contributed to the economic growth of the country?

The Malaysian takaful industry's sound contribution growth has been led by family takaful, rising by 46.7% in 1H21 (2020: 7.08%). General takaful grew by 13.5% in the same period (2020: 4.61%). The sharp growth in contributions was propelled by a boost in public awareness of takaful products, supportive government initiatives, easing of Covid-19 movement restrictions and a recovering economy. Takaful sector is expected to continue its sound growth in 2022 on improved penetration rates, business models and technology capabilities amid higher takaful awareness, digitalisation innovation and government initiatives. Malaysia is the third- largest takaful market globally, according to Islamic Financial Services Board, with a vibrant IF ecosystem that includes Islamic banks, sharia-compliant corporates, Islamic fund managers, and halal industries that seek takaful products. Additionally, the Takaful industry can aspire to further penetrate or focus their efforts to support untapped and/or underserved market segments (B40, Rural areas, Senior Citizens, etc.) to address their respective protection gaps. On a broad macro level, Malaysia's protection gap amounts up to RM2,489 billion presenting a major gap which needs to be addressed by the Insurance and Takaful industry. This is to ensure that Malaysians are sufficiently insured to protect and provide for their loved ones in the event of their death or disability.

2. Do you think IFSA 2013 has enabled the Takaful sector to contribute more to economic growth and development? Why or why not?

From a takaful point of view, changes made in the IFSA have helped spur the growth on takaful of Malaysia. Industry has grown 10-13% Annual. Changes on nomination process and requirements have made it easy for people to distribute wealth more efficiently thus generating more economic impact.

3. Does Takaful sector have any significant impact on environmental, social and governance (ESG) objectives? Why or why not? What about the trends of Takaful in Malaysia towards ESG?

The launch of VBI initiative in 2017 by BNM to the IB side shows that ESG has significant impact towards the financial industry. As such, led by the Malaysia Takaful Association (MTA), the VBI Takaful framework was launched last year that seeks to further ingrain sustainable business practices and values within the takaful businesses. It is expected that this framework will amplify the takaful value proposition to realise the intended outcomes of shariah in its conduct and offerings, going beyond the minimum shariah requirements. The concept of *Maqasid* Shariah provides a clear guidance & framework to the process of *ijtihad* (independent reasoning) in solving the issues conforming to the human interest while complying with the will of God.

4. Do you believe the Takaful sector is now changing to include more social narratives?

Yes. Creating awareness or educating the public through social narratives might bring a better impact to the community. It provides accurate social information in a reassuring way, which can be easily understood by the person it is written for. The aim is not to change a behaviour, but to allow the individuals to improve their understanding of an event or expectation, therefore leading to a more effective response to it.

Answered by:



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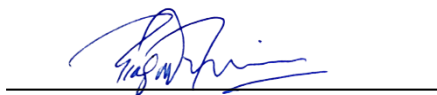
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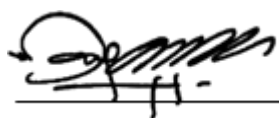
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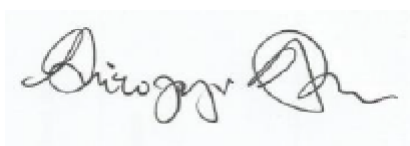
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