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University of Southampton

Faculty of Social Sciences

Southampton Business School

**The Impact of Shariah Compliant Derivatives as a Hedging Strategy on
The Islamic Financial Institutions**

by

Muhammad Adnan Hasan

Thesis for the degree of Doctor of Philosophy

September 2022

University of Southampton

Abstract

Faculty of Social Sciences

Southampton Business School

Doctor of Philosophy

The Impact of Shariah Compliant Derivatives
as a Hedging Strategy on The Islamic Financial Institutions

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Thesis Summary

This study was started with the objective of exploring the Islamic financial institutions (IFIs) that currently operate in an increasingly sophisticated and highly competitive market. These IFIs face challenges in maintaining the alternative ethical features within the pressures to achieve sustainability of economic growth. In response to this, IFIs concentrate their efforts on minimising the risks inherent in the financial transactions. This is because IFIs seem to follow the market logic that believes in the greater needs to use various derivatives products and hedging instruments to control the financial stability. The importance of financial derivatives, for instance as a means of risk management is recognized in the modern financial system. However, the IFIs' approach to embracing financial derivatives is somewhat incompatible with Shariah guidelines that prohibit the acts of taking excessive uncertainty (*gharar*) and debt-based transactions. On the other hand, IFIs, argue that the need to guarantee investors' return using derivatives is a way of protecting the public interest or *maslahah*. Within this context, this study has three main objectives. First, to explore the process of negotiations, translations, modifications of Shariah compliance principles to engage with derivatives transactions in IFIs. Second, to explore the key issues and challenges faced by IFIs in engaging with Shariah-compliant derivatives transactions. Lastly, to analyse the perception of market players and policymakers on the impact of the Shariah-compliant derivatives on IFIs. This proposed study uses the organisational identity theory as a lens in framing the discussion to achieve the above research objectives. Using the Qualitative approach, this study is expected to fill the gap in the knowledge of Islamic derivatives and aims to add wider-scoped derivatives literature. Moreover, this study seeks to make a larger contribution to the global Islamic financial markets by proposing comprehensive justification of the acceptability of Shariah-compliant derivatives in line with the objective of Shariah (*maqasid al-Shariah*) as well as to provide certain recommendations for the use of Islamic derivatives transactions as hedging tools in promoting their instruments in IFIs worldwide.

Key words: Shariah Compliant Derivatives, Hedging Strategy, Business Demands, Ethical Identity, Islamic Finance Stakeholders, Beyond Hedging

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Research Thesis: Declaration of Authorship

Print name: Muhammad Adnan Hasan

Title of thesis: The Impact of Shariah Compliant Derivatives as a Hedging Strategy on the Islamic Financial Institutions

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;

Signature:

Date: September 2022

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List of Abbreviations

| | |
|--------------|---|
| AAOIFI | Accounting and Auditing Organization for Islamic Financial Institutions |
| BNM | Bank Negara Malaysia (Central Bank of Malaysia) |
| BSAS | Bursa Suq Al-Sila' |
| CBOT..... | Chicago Board of Trade |
| CBOE..... | Chicago Board Options Exchange |
| CDS | Credit Default Swap |
| CFIs | Conventional Financial Institutions |
| CH-i..... | Islamic Commodity Hedging |
| CME | Chicago Mercantile Exchange |
| CMP | Commodity Murabahah Program |
| CPO..... | Crude Palm Oil |
| DCI-i..... | Islamic Dual Currency Investment |
| DFT | Designated Future Transactions |
| FRA | Forward Rate Agreement |
| IBF | Islamic Banking and Finance |
| IDMA | Islamic Derivatives Master Agreement |
| ICCS | Islamic Cross Currency Swaps |
| ICD | Islamic Corporation for the Development of the Private Sector |
| IFIs | Islamic Financial Institutions |
| IFXS..... | Islamic Foreign Exchange Swap |
| IIFM | International Islamic Financial Market |
| IFSB..... | Islamic Financial Services Board |
| IIFS..... | Institutions Offering Islamic Financial Services |
| IsDB | Islamic Development Bank |
| ISDA..... | International Swaps and Derivatives Association |

List of Abbreviations

| | |
|-------------|---|
| IPRS | Islamic Profit Rate Swaps |
| IRTI | Islamic Research and Training Institute |
| IRS | Interest Rate Swap |
| IsDB | Islamic Development Bank |
| OTC | Over the Counter |
| LME | London Metal Exchange |
| LIFFE | London International Financial Futures and Options Exchange |
| MIFC | Malaysian International Islamic Financial Center |
| MII | Mudharabah Interbank Instruments |
| OIC | Organisation of the Islamic Conference |
| LIBOR | London Interbank Offered Rate |
| PHLX | Philadelphia Stock Exchange |
| PLS | Profit and Loss Sharing |
| SAC | Shariah Advisory Council of Bank Negara Malaysia |
| SCD | Shariah Compliant Derivatives |
| SLCF | Shariah Compliant Local Currency Financing |
| TMA | Tahawwut Master Agreement |
| TRS | Total Return Swap |

Glossary of Islamic Finance Terms

| | |
|---|---|
| Bai' | Sale or exchange. |
| Bai' al-Dayn | A transaction that involves the sale and purchase of securities or debt certificates. |
| Bai' al-'inah | A contract involving the sale and buy-back transaction of assets by a seller. A seller sells an asset to a buyer on a cash basis and later buys it back on a deferred payment basis where the price is higher than the cash price. |
| Bai` al-Murabahah (cost plus profit) | The sale of good or commodity at a price, which includes a profit margin as agreed to by both seller and buyer. Such sales contract is valid on the condition that the price, other costs, and the profit margin of the seller are stated at the time of the agreement of sale. |
| Commodity Murabahah | The purchase of certain specified commodities on a cost-plus profit basis (Murabahah) to be agreed upon by both parties – seller and buyer, and subsequently sell it to a commodity trader (third party) with the objective of obtaining cash. |
| Darura | The Shariah principle of necessity which may be applied in extenuating circumstances to achieve approval for a concept. |
| Fatwa | A legal pronouncement in Islam provided by an Islamic legal specialist. |
| Fiqh | The science of Islamic jurisprudence or Islamic law. |
| Fiqh al Muamalat | Islamic commercial jurisprudence or the rules of transacting in a Shariah-compliant manner. |
| Gharar | It means any element of uncertainty in any business or a contract which is otherwise preventable or avoidable. |
| Isthisna | Isthisna is a sales contract for manufacturing a product in which the manufacturer agrees to produce a specified product to be delivered at a specified time for a specified price. |
| Ijarah | Ijarah is a contract of leasing where the duration of the lease, as well as the basis for rental, are set and agreed in advance. |

| | |
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| Ijara Mawsoofa Bil Thimma | A lease agreed upon, perhaps even with a deposit, for delivery and use of an asset in the future. |
| Ijarah Munthahiyah bittamlik | Ijarah is a contract of leasing where there is an option to transfer the ownership of asset. The contract for leasing and transfer of asset should be in two separate contracts, as in Shari'ah a combination of two contracts (<i>ta'alluq</i>) is not permissible. |
| Kafalah | Kafalah is a contract in which one party assumes responsibility for the debt of another if the debtor should fail to pay. |
| Maqasid al-Shariah | The higher objectives of the rules of the Shariah |
| Mudarabah | Mudarabah is a contract between two parties, one who provides the funds and the other who provides the expertise, with an agreement to the division of any profits made in advance. |
| Mudharabah Interbank Instruments | A mechanism whereby a deficit Islamic banking institution (investee bank) can obtain investment from a surplus Islamic banking institution (investor bank) based on Mudharabah (profit sharing). The period of investment is from overnight to 12 months, while the rate of return is based on the rate of gross profit before distribution for investment of 1-year of the investee bank. The profit-sharing ratio is negotiable among both parties. The investor bank at the time of negotiation would not know what the return would be, as the actual return will be crystallised towards the end of the investment period. The principal invested shall be repaid at the end of the period, together with a share of the profit arising from the used of the fund by the investee bank. |
| Musharakah | Musharakah is a partnership contract, which involves both sharing the risk and reward, with the profit-sharing ratio, and proportionate losses to the amount invested are set and agreed in advance. |
| Musawamah | Bargaining. A general kind of sale in which the price of the commodity to be traded is bargained between the seller and the purchaser without any reference to the price paid or cost incurred by the former. |
| Muamalat | Activities which are not explicitly governed by the Shariah with respect to worship. |

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| Qard Hassan | Qard Hassan is a free of profit loan, with one party provides a loan to the other party which has to be paid back the loan without any profit or additional payment. |
| Rahn | Rahn or mortgage or collateral, is defined as possessions of such assets offered as security for a debt so that the debt will be taken from it in case the debtor failed to pay back the due money. |
| Riba | An excess or increase, interest. Technically, it means an increase over the principal in a loan transaction. |
| Sarf | Literally this means exchange. The 'rules of sarf' restrict the methods of exchanging and depositing money in order to prevent riba. These rules are based on the Hadith. |
| Salam | Salam is a sales contract for purchase of goods to be delivered at a specified time in the future. Payment for the goods is made in advance. |
| Shariah | Shariah is the divine guidance as given by the Holy Quran and the Sunnah of the Prophet Muhammad which covers all aspects of the Islamic faith including practice and beliefs. |
| Sukuk | The is a document or certificate evidencing an undivided pro rata ownership of an underlying asset. Usually referred to as an Islamic bond. |
| Takaful | Takaful is an Islamic insurance in which all participants are members and contribute to a pool of funds that provide assistance in the event of loss on the part of any of the participants. |
| Tawarruq | refers to the purchase of good or commodity to be sold to a third party (other than the original seller) with the objective of obtaining cash. The first transaction will be in deferred payment term and the subsequent transaction will be in cash term. |
| Ta'widh | Compensation |
| Wa'ad | Wa'ad is defined as promise or unilateral promise. Promises are morally binding, whether they can be enforced is debated, but agreed widely among contemporary Islamic scholars of the Islamic finance industry. |
| Wa'ad Mulzim | Binding Promise |

Glossary of Islamic Finance Terms

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| Wakalah | Wakalah is a contract in which one person appoints another person to act as an agent on their behalf in a transaction. |
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Chapter 1 Introduction

1.1 Research Background

Today, the Islamic finance market represents a small but growing segment of the worldwide financial assets (Khan, 2010). Islamic finance is aimed at providing alternative financial and ethical investments and creating opportunities across multiple business sectors. The value of the total assets held by the global Islamic financial industry in 2020 was estimated to be worth USD 2.70 trillion, marking a growth of 10.7% year on year (y-o-y) as compared to USD 2.44 trillion in 2019 which was accounted for by Islamic financial institutions (together with the Islamic windows of conventional banks) and Islamic capital markets as the main sector (IFSB, 2021).

Islamic financial institutions (IFIs) operate in an increasingly sophisticated and highly competitive market. They are required to balance the dual challenges of maintaining their alternative ethical features and achieving sustainable growth (Kammer et al., 2015). There has been a tendency among IFIs to focus their efforts on minimising the risks inherent in the financial transactions they choose to undertake. IFIs seem to follow the market logic that believes in an increasing need to employ a range of derivatives and hedging instruments in a bid to maintain financial stability (El Mehdi, and Mghaieth, 2017). The importance of financial derivatives as a means of risk management (Al-Amine, 2008) for instance, is recognised in the modern financial system (Dorrucci, Meyer-Cirkel and Santabárbara (2009). Yet the approach taken by IFIs to embrace financial derivatives is somewhat incompatible with Shariah guidelines which prohibit acts involving excessive uncertainty (*gharar*) and debt-based transactions (Maurer, 2001; Diwany, 2014). IFIs, however, argue that the use of derivatives as a means of guaranteeing returns to investors provides a way of protecting the public interest or *maslahah* (Ameer, 2010).

IFIs have thus embraced a new type of hedging strategy to reduce business risks (Ahmad, 2014). IFIs have introduced Islamic or Shariah-compliant derivatives aimed at controlling the risks associated with the volatility of business transactions, and these include sukuk (Islamic bonds), foreign exchange rate transactions and exchange/sales contracts (*murabahah* and *salam*). IFIs argue that the Shariah requirement to provide underlying assets for such transactions can easily be affected by fluctuations in market prices (Kamali, 1996). Policymakers, market players and scholars are mostly open to participating in a regulated derivatives market; however, there have been

criticisms related to the inclusion of derivatives-based transactions, which many argue contradict the principles of Shariah compliance (Haron, 2014).

Such critics question the character of derivative instruments that are often very speculative (Khan, 1988), thereby contradicting the basic tenets of Islamic finance. IFIs, however, argue that these instruments are Shariah-compliant due to the fact that Islamic derivatives or Shariah compliant derivatives are intended for use as tools of risk management (Dusuki, 2012). The most frequently used Islamic derivatives are forward contracts, cross-currency contracts, and swap contracts (Malkawi, 2014). Despite being met with sharp criticism, IFIs have made extensive use of these types of derivatives (Ercanbrack, 2011; Zahan and Kenett, 2011; Kok et al., 2014; Sakti et al., 2016).

This chapter is divided up into eight broad sections altogether. Section 1.2. discusses the research context. Section 1.3. states the research motivation. Section 1.4. highlights research questions and objectives. Section 1.5. traces the organisational identity theory. Section 1.6. explains the research methods. Section 1.7. describes the contribution of research. Finally, Section 1.8. gives an overview of the entire research.

1.2 Research Motivation

IFIs suggest that the use of Shariah compliant derivatives or Islamic derivatives is based on several factors. *First*, there is a demand for the Islamic banking industry to be capable of managing the sophisticated needs of the economy and the various types of substantial risk faced by businesses in different sectors. *Second*, there is a need for cost-effective solutions and to control the risks arising from the volatility of business transactions and especially cross-border transactions. *Third*, most Islamic finance industries generally adopt a domestic-oriented approach, and most still engage in consumer retail-based concerns using a simple range of Islamic banking products and services. *Fourth*, there is a trend within Islamic business and finance activities to move away from the traditional financial approach to a new, more modern approach based on financial technology and innovative business models. The industry also suggests that derivatives transaction is the only way to mitigate potential risks in future transactions.

This study seeks to explore the implementation of Shariah compliant derivatives and to provide a reflection on growing the use of Islamic derivatives in IFIs worldwide. This study first seeks to explore how IFIs rationalise the pressures and demands to engage in derivatives transactions. Second, to investigate IFIs involvement in the process of negotiation, translation, and modifications

of Shariah compliance principles in order to engage with derivatives transactions. Finally, this research will seek to address the key issues and challenges faced by Islamic finance stakeholders in engaging with the Shariah-compliant derivatives transactions.

1.3 Research Questions and Objectives

This thesis seeks to explore the ways in which IFIs rationalise the pressures and demands to engage in derivatives transactions. This in turn has led to the following research questions:

RQ 1: How do IFIs rationalise the pressures and demands to engage in derivatives transactions?

Through the investigation into the Shariah compliant derivatives, I intend to analyse and explore how IFIs rationalise the pressures and demands in engaging with the derivatives transactions. However, identification of the Shariah compliance with derivatives instruments in IFIs would be incomplete without an analysis of the business demands present when mitigating risks. This study seeks to further examine whether the view that Shariah compliant derivatives are only fractionally used in IFIs to reduce and hedge the risks that can be linked with other-business transactions (Jobst, 2007). This leads the study to focus on the second research questions:

RQ 2: How are IFIs involved in the process of negotiation, translation, and modifications of Shariah compliance principles in engaging with derivatives transactions?

Shariah compliant derivative transactions have implemented in various markets globally. However, its implementation in different countries had led to further issues in such implementation (Rahman et al. 2014). This leads this study to explore the third question:

RQ 3: What are the key issues and challenges of the Shariah-compliant Derivatives Transactions being faced by the Islamic finance stakeholders?

Shariah compliant derivatives have become satisfactory and acceptable for many prime market players in Malaysia due to the restriction of any unlawful investment and act that any transaction. It has been seen with the implementation of this derivative in the various markets of different countries has led to falling its issues in such implementation (Rahman et al. 2014). Furthermore, additional issues and challenges have been raised concerning the global trends for the unification

of the risk management of the commodity market had swapped the rate of interest of commodity. From the usage of this grey system, this problem can be addressed and mitigated by analysing the limited available information about the commodity market. Based on the discussion above, the researcher aims to answer the above research question.

1.4 Organizational Identity Theory

This study uses the organisational identity theory as a lens through which to frame the discussion for answering the above research questions due to its multi-disciplinary approach which focuses on sociological and psychological identities for organisations (Gioia, Shultz & Corley, 2000). Consequently, this research aims to explore the process of negotiation, translation, and modification of Shariah compliance principles in engaging with derivatives transactions and their financial instruments in IFIs.

Rindova, Dalpiaz, and Ravasi (2011) specify that an organisation's various identity changes reflect a continuous cycle of empowerment and extension. In their opinion, innovative activities across product development, creation and advertising have their origins in the new social resources found within the organisation's atmosphere. These in turn, are used to inform identity redefinition, prompting both strategic adaptability and unconventional strategies. In the context of identity-challenging innovation, both innovation and identity change cannot only be problematic for the organisation to achieve but can also render organisational identity and innovation inconsistent with each other. This is significant because organizational-identity can create innovation in response to stakeholders' needs. Furthermore, Anthony and Tripsas (2016) argue that organisations respond to identity-challenging innovation opportunities in three principal ways: 1.) they do not see an innovation opportunity; 2.) they see an opportunity but do not take it, or 3.) they observe an opportunity and try to be innovative.

In the context of this study, the organisational identity theory is used to explain how IFIs impact on the creation of innovative derivative instruments as risk management tools for use as business hedging solutions in line with Shariah rules and principles. According to Maurer (2001), conventional derivatives are considered to be risky and uncertain as derivatives such as hedges and forward contracts are always contingent upon an unknown future event. For IFIs, derivatives have been the result of financial innovation that has responded to the wish to hedge risks within the context of the complex financial industry (Jobst and Sole, 2009). These derivative instruments should contain warnings about usury (*riba*), risk (*khatar*), uncertainty (*gharar*), speculation and

gambling (*maysir*) in such a way that do not merely copy conventional derivative instruments without enabling Shariah-compliant financial institutions to maintain any special identity and image (Abedifar et al., 2015).

1.5 Research Methods

From an epistemological perspective, this study, in general, adopts a constructivist/interpretivist position. This is based on the belief that reality needs to be interpreted in order to discover the underlying meaning of events and activities. As such, not all of the types of derivative instruments seen in CFIs are applicable as a full set of hedging mechanisms in IFIs. As a result of the above epistemological position, this research will use qualitative methodologies in investigating the process of engagement between Shariah principles and derivative instruments based on the perception of market players and policymakers (Bryman, 2012).

Additionally, this study is based on primary and secondary data. The primary data for this study will be carried out through interviews with five groups of respondents that are considered to have significant influence in shaping the Islamic finance industry. The participants are those regarded as having essential roles in the Islamic finance industry and/or distinguished contribution to the topic Islamic derivatives for the purpose of risk management and hedging strategy in IFIs. Furthermore, the respondents have been carefully selected to represent the three locations that are chosen for data collection. Additionally, the respondents chosen are designed to represent the following five groups: 1) Islamic finance practitioners such as finance managers, treasurers, risk management managers, capital market officers, and alike who are responsible for facilitating or controlling the implementation of risk management strategy in their respective institutions; 2) Shariah scholars; 3) researchers; 4) legal experts who have studied the field and influence in the driving of the policy making in the Islamic finance industry; 5) Policy makers/regulators such as those from central banks and other related bodies who instigate, modify, and oversee policies that influence the stability of Islamic finance industry. An in depth analysis of documentary resources will be undertaken not only through the existing resources at Aston University and the University of Southampton, but also in documentary knowledge centres such as the Library at the Islamic Development Bank Group in Jeddah, the Oxford Centre for Islamic Studies at the University of Oxford, the Knowledge Management Centre at INCEIF (The Global University in Islamic Finance) and IIUM Institute of Islamic Banking and Finance at International Islamic University Malaysia in Kuala Lumpur. The primary analysis will be done through the thematic analysis approach based on the empirical data

derived from cross organizational level. Finally, the analysis will be conducted using NVivo software for qualitative analysis.

1.6 Research Contributions

As a result of this research, both theoretical as well as an empirical analysis contribution, to the literature on the impact of Shariah compliant derivatives work as a hedging strategy and investment mechanism in Islamic financial institutions. This study seeks to explore in greater depth the following aspects. Firstly, how Shariah compliant derivatives that drive IFIs can be used in dealing with the pressures and demands simultaneously on daily business operation. Secondly, how these derivatives can be used as a tool of risk management to facilitate the sophisticated and cross border transactions between the investors and financiers. Finally, how they can be functionally used to reduce and hedge the risks in connecting with any business transactions. It will also seek to show the organizational identity of IFIs in engaging with derivative transactions and how its instruments offer a theoretical perspective that is absent in the existing literature.

This research contributes empirically by exploring how IFIs engage in the process of negotiation, translation and modifications of Shariah compliance principles in blending with derivatives transactions and its instruments. Thus, this research represents a unique methodological and theoretical approach through the use of multi-level analysis and approaches that combine the internal and external perspectives of the research field in order to illustrate and provide a more comprehensive understanding of Shariah compliant derivatives ratification in IFIs. According to the findings, IFIs may have to evaluate their Shariah compliance infusion and revisit their ethical identity implications in dealing with derivatives transactions and their financial instruments. In addition, IFIs could use the findings to evaluate the main challenges and issues associated with Islamic finance stakeholders' involvement in Shariah compliant derivatives transactions.

1.7 Thesis Structure

For the purpose of achieving the research objectives and answering the above-mentioned research questions and objectives in Section 1.3. this thesis is divided into the following chapters:

Chapter 2 examines discourses on the impact of Shariah compliant derivatives as a hedging strategy for the Islamic financial institutions by covering discussions on: (1) the difference between Conventional Financial Institutions (CFIs) and Islamic financial institutions (IFIs); (2) the Overview of

Financial Derivatives, its purposes and types of financial derivatives instruments; and (3) deconstructing Shariah compliant derivatives on the IFIs. It also explores the issues and challenges of Shariah-compliant derivatives transactions faced by the Islamic finance stakeholders, regardless of the potential importance of these issues in terms of unlocking the perception of hedging strategy. The chapter concludes by providing reflections on the gaps remaining in the literature, thereby demonstrating the novelty of this study.

Chapter 3 examines the main theory used in the Shariah compliant derivatives literature, using potential theoretical lenses through which to frame and signify my empirical analysis. I will examine how IFIs affect the creation of innovative derivative instruments as risk management tools to be used as business hedging solutions in accordance with the Shariah rules and principles that are widely used as a theoretical framework. After reviewing the organizational identity theory, I note that a CFI's method of responding to innovation will differ from an IFI's method, both of which can be explained by the organisational identity perspectives/lens.

Chapter 4 describes how the research was designed and conducted, as well as the data collection methods and analysis used to answer the research questions. Furthermore, it includes ethical considerations and makes efforts to maintain the validity of the analysis. As a result of these discussions, this chapter proves that this research has been thoroughly and appropriately conducted and has focused on achieving reliable and novel results.

Chapter 5 discovers the rationalisation of pressures and demands that IFIs face when engaging in derivatives transactions. The chapter goes on to explain the pressures IFIs face to mitigate the increasing financial risks and the complexity in operating within the global financial industry by engaging in derivative instruments which is critically emphasised in the empirical analysis of this study.

Chapter 6 discusses the business demands of Shariah compliant hedging instruments consequently bring the critical intention from the market players and regulators to construct and endorse the urgency of the need to hedge against market risk, foreign exchange risk and profit rate risk in day to day business activities. The chapter goes on to focus on IFIs efforts to create new innovative financial derivatives instruments in line with the principles of Islamic finance with the purpose of accommodating the business demands.

Chapter 7 explores the business demands of Shariah compliant hedging instruments consequently bring the critical intention from the market players and regulators to construct and endorse the

Chapter 1

urgency of the need to hedge against market risk, foreign exchange risk and profit rate risk in day to day business activities. The chapter explores how IFIs make Shariah compliant derivative instruments and how this has led to Shariah compliant structured products being viewed as attractive as CFIs variants. The chapter ends with the reflection on how Shariah compliant derivatives mixed with hedging strategy and investment elements has resulted in what are now seen as “sexy products” because of business model innovation in fulfilling both the business demands and stakeholders needs.

Chapter 8 covers discussion and briefly summarises the main points discussed in the previous chapters and is a reaffirmation of the research findings. Further, it discusses the empirical, theoretical, and practical implications of this study. Finally, it discusses the limitations of this study and makes recommendations for further research.

Chapter 2 Literature Review

2.1 Introduction

This literature review chapter explores the impact of Shariah-compliant derivatives as a hedging strategy for the Islamic financial institutions. Essentially, it provides a mapping of the current differential between Conventional Financial Institutions (CFIs) and Islamic financial institutions (IFIs), particularly exploring the challenges of Islamic banking and finance industry in dealing with the business risks. The review covers discussions on the following areas: (1) the Overview of Financial Derivatives, its purposes and types of financial derivatives instruments; (2) the derivatives markets and its market players; (3) the view of Islamic finance on derivatives. In this mapping, I intend to position my study and make a contribution to the development of knowledge in that area; (4) deconstructing Shariah-compliant derivatives in Islamic financial institutions (IFIs). There remains a need for further study looking further into the issues and challenges of Shariah-compliant derivatives transactions faced by the Islamic finance stakeholders, regardless of the potential importance of these issues in supporting to unlock the perception on hedging strategy in IFIs. This review, then, also discusses the types of financial derivatives instruments, how derivatives function and their advantages and disadvantages. The literature review provides a synthesis of financial derivatives research in Islamic finance business activities, in social science journals, as well as the literature on derivatives found in management and business ethics journals. The final section of the chapter will examine the remaining gaps in the literature, which will emphasise the originality of the present study.

2.2 Overview of Islamic Banking and Finance Sector

Many scholars argue that Islamic banking and finance (IBF) has become an alternative to current economic practices (Kok, 2014; Pitluck, 2012; Khan, 2010). There is an increasing number of Islamic banks and financial institutions and a number of new Islamic banks have been launched with a significant amount of capital. As a result, several conventional banks have started to create Islamic subsidiaries or are opening Islamic windows in order to engage in Islamic business activities (Sole, 2007). Furthermore, increasing numbers of non-Muslim financial institutions are entering the field and have started collaborating in order to bring in the largest number of Muslim clients possible. Thus, it appears that the volume of Islamic banking is likely to multiply in the coming decades and

the activities of Islamic banks are projected to cover an extensive zone of financial transactions of the world (Abedifar et al., 2015). Nevertheless, before the IFIs extend their businesses, it is necessary for them to evaluate their past performance as each new system benefits from past experience, to modify its activities and to investigate its insufficiencies in a workable way. Careful examination of the benefits and weaknesses are essential enable companies to progress towards their aggregate achievement. With this in mind, this study will investigate the activity of IFIs in the light of Shariah and to identify their accomplishments as well as missed opportunities (Milhem and Istaiteyeh, 2015).

Historically, the first Islamic banking and finance industry was established in the 1970s with the dawn of a new era of blending religious doctrine and banking concerns. Typically, Islamic banks are operated as commercial banks based on the interest-free system and incorporated into a more extensive system of interest-based banking. It was during this period that the first Islamic banks were first created. The establishment of the Mit Ghamr Savings Bank in Egypt in 1963 was the result of a truly authentic investigation into Islamic banking and finance business practices (Abedifar et al., 2015).

After the fall of the Ottoman Empire, the Mit Ghamr Savings bank in Egypt became the first Islamic bank in the world that adopted and empowered the support of the Islamic system (which is free from interest activities) to assist in accelerating economic growth and social development (Alharbi, 2015). Dr Ahmad El-Najjar initially founded this initiative shows up itself to have been impacted by the social and financial idea of the Muslim Brotherhood and the mutual banking institutions during his study in Germany. Dr Ahmad El-Najjar is credited as the founder of the bank. He was appointed as head of the Department of Economic Affairs of the Organisation of the Islamic Conference (OIC) in Jeddah from 1971 to 1973 and then a member of the preparatory committee for the establishment of the Islamic Development Bank (IsDB) in Jeddah in 1973 (Ayub, 2007). During his time in Germany, he carried out research which showed that the Muslim Brotherhood had a significant impact on the activities of the Mit Ghamr Savings Bank, in terms of its social and financial ideology.

Abedifar, et al. (2015) reveal that the establishment of the IsDB has been the key to the creation of Islamic finance and banking in worldwide. The IsDB was created as an international Islamic financial institution which was supported by member countries of the Organisation of the Islamic Conference (OIC). Its primary objective was to facilitate the economic and social improvement of Muslim

groups worldwide and is based on Shariah rules and principles. In 1975 there were 23-member countries, and this expanded to 57 member states in 2014.

Pitluck (2012) criticises the Islamic banking and finance (IBF) practices as being unclear in their interpretation of the Islamic law and this can potentially lead to conflict between moral and theological applications. However, she believes that the IBF could be viewed as a potential alternative financial system to the conventional banking system. It seems to be argued that social processes drive the IBF to resemble the conventional banking system in several complicated and indirect traditions. Many scholars agree that the current situation of the IBF demonstrates the possibilities in moderating the financialisation and manipulation in economic activity.

Additionally, Maurer (2003) comments that there is a powerful sense of distrust and emotionality which has disrupted the ability of the IBF to negotiate and deal routinely with the divergence between religious values and alternative dominance that exists between capitalist and moral economies. Maurer (2003, 2005, 2012) explores this point and her critical analysis of capitalism suggests that when the transfer of income from business activities that do not conform to Shariah principles to a charitable fund this requires a form of purification method. The IBF discloses transcendental matters in the failure of equality embodied in their social activities, in which players generally appear as capitalism, in the case of making changes to a policy or otherwise, providing a solution and an alternative or incapable of doing so (Maurer 2003).

2.3 Characteristics of the Islamic Banking and Finance System

Islamic finance has expanded greatly around the world and the industry's global assets have grown at an average annual rate of 17.6% from 2009 to 2013, as predicted by Ernst & Young. In 2016, Islamic banks (together with Islamic windows of conventional banks) were the most significant contributors to the total assets of the global Islamic financial industry. According to the Islamic Financial Services Industry Stability Report 2021, the total assets of the global Islamic financial industry in 2020 was USD 2.70 Trillion which 68.3% is contributed by Islamic banking assets of USD 1.84 Trillion, 25.6% is contributed by Shariah compliant bonds outstanding (*Sukuk*) of USD 689.5 Billion, 5.3% is contributed by Islamic mutual funds' assets of USD 143.8 Billion and 0.9% is contributed by Islamic Insurance (*Takaful*) sector of USD 23.1 Billion (IFSB, 2021).

Islamic financing is characterized by the fact that the transaction is backed by an asset and that this is one of its most significant characteristics. Conversely, the transaction in the conventional banking

system of financing is merely based on monetary papers or money and for that reason they are prohibited. This is because the IBF does not recognize money as a subject of trade. Paper money has no intrinsic utility, and it is merely a medium of exchange (Kamali, 2008). In the IBF system, the profit occurs when something with fundamental value is sold for money or when a different currency is exchanged. The return received as a result of dealing in money (of the same currency) or the papers representing them is interest (*Riba*), and for that reason is forbidden. Therefore, financing in the IBF system is continuously based on illiquid assets which produce real assets and contributes to the real economy of the society (Pitluck, 2012).

According to Usmani (2004), the pure and principal instruments of financing in IBF are *Musharakah* (partnership) and *Mudharabah* (profit and loss sharing) arrangement. When an investor (*rabb al-maal*) contributes money based on these two instruments, it is then transformed into the assets having fundamental value (Dar and Parsley, 2000). Returns are received from the sale and purchase of these real asset's activities (Warde, 2010). The investor then receives real-goods and can make a profit by selling them in the market. In the case of the *Istisna* arrangement, financing is affected through manufacturing some real assets, as a reward of which the investor earns a profit (Kamali, 2008).

Moreover, the instruments of leasing (*Ijarah*) and *Murabahah* financing are occasionally criticized because their result is repeatedly the same as the result of a conventional loan based on the interest basis (Pitluck, 2012). This criticism is acceptable to some extent, and that is why the Shariah Supervisory Boards have agreed that these two instruments are not model modes of Islamic financing and they should be used only in cases of need with a full observation of the conditions prescribed by Shariah. Regardless of the above-mentioned statements, the *Murabahah* (sale with cost plus profit) and *Ijarah* (leasing) financing are fully supported by real assets, and it is evidently different from the interest-based financing in the conventional banking system. The gap between the supply of money and the production of real assets creates inflation. In the meantime, financing in an Islamic banking and finance system is supported by real assets, and it is always harmonized with consistent goods and services (Ayub, 2007).

2.4 Differences with the Conventional Financial Institutions (CFIs)

IFIs have numerous identifiable solutions for the Shariah compliant products and services where the process flow of the transactions is entirely different compared to CFIs products, for instance, *Murabahah* (sale with cost plus profit), *Musharakah* (joint venture), *Mudharabah* (profit and loss

sharing), *Ijarah* (leasing), *istisna* or sales contract for manufacturing to be delivered at a specific time in the future) and salam or sales contract for the purchase of goods to deliver at a specific time in the future (Khan, 2010). These Shariah-compliant contracts show that IFIs are a systematic solution banking system. The differences between IFIs and CFIs is presented in Figure 2.1 below:

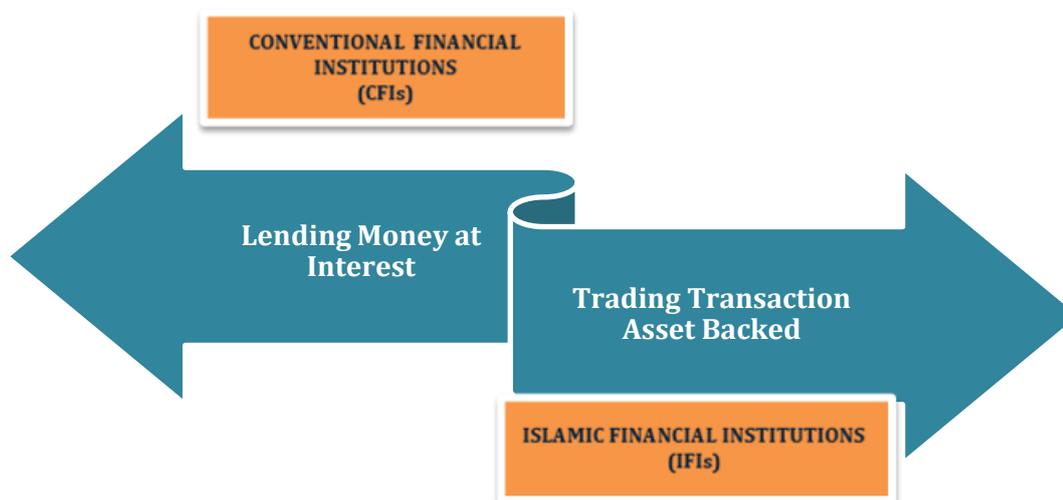


Figure 2.1 Differences between IFIs and CFIs

Sources: Modified and adopted from Kamali (2008)

Iqbal and Llewellyn (2002), Sundararajan and Errico (2002), Cihak and Hesse (2010), and Ghassan and Taher (2012) deliberate theoretically and empirically if the Islamic banks are stable compared to conventional financial institutions. The structures of each different system essentially have to be measured by estimating comparatives between immovability and instability. In this case, many aspects contribute to making IFIs more stable are of in a different dimension than CFIs counterparts. Risk and profit-sharing activities based on the structure of *Mudharabah* on the deposits side of IFIs offer a significant layer of protection and occasionally may have higher risks of loss from the investor perspective in monitoring the negligence and misconduct of the customers.

Iqbal and Mirakhor (2011) describe the main fundamental principles of IFIs which are the prohibition of the interest rate system (*riba*). It is this prohibition element of *riba* which gives the inherent stability of the Islamic banking system. According to El Hawary et al. (2004), Islamic finance is a financial system that is based on the following principles; 1.) risk-sharing: the terms of financial transactions need to reflect asymmetrical risk/return distribution among each participant to the transaction, 2.) materiality: all financial transactions must have material finality, 3.) no exploitation: neither party to the transaction should be exploited, 4.) no financing of sinful activities: the

transaction cannot be used to finance the business activities prohibited in the primary sources of Islamic finance which is unlawful in the Quran such as manufacturing and selling alcohol, pork and its related products, and gambling activities. The major comparison between CFIs and IFIs is presented in Figure 2.2 below:

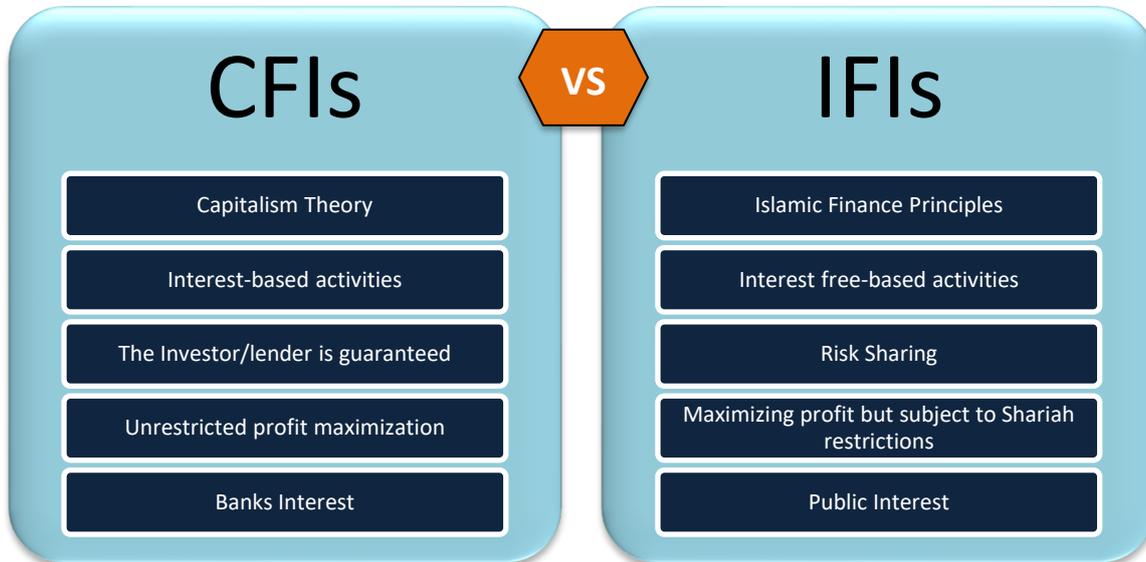


Figure 2.2 Major Comparison Between CFIs and IFIs

Sources: Modified from Khan (2010), Iqbal & Llewellyn (2002), Sundararajan & Errico (2002), Cihak & Hesse (2010), and Ghassan & Taher (2012)

Shariah-compliant structures and contracts have guided the business activities to be more explicit and more transparent. This is because the Quran and Sunnah are the primary sources in the Islamic finance and control the transactions and interactions, which in turn are mutually beneficial to society (Vogel & Hayes, 1998; Iqbal & Mirakhor, 2007; Diwany, 2010). Through a mutual benefit impact, the Islamic financial industry has expanded rapidly. Many financial institutions like a bank, an insurance company, leasing company and securities or investment company have entered the Shariah-compliant financial industry by establishing Islamic units/ windows in their existing financial system. There are five main advantages of Islamic finance, such as strengthening financial stability, supporting economic Justice, reducing the impact of harmful products and prohibited activities, promoting financial inclusion, and ethical values. Therefore, during the global 2008 financial crisis; the IFIs remained untouched. In order to enhance financial stability and lower the occurrence of risk, Islamic finance institutions conduct careful audits and analyses.

2.5 Challenges of Islamic finance Industry in dealing with Business Risks

The global Islamic finance industry has shown incredible growth over the last period, but the management of risk remains an issue amongst Islamic finance practitioners in the financial market (Khan, 2010). There are five broad types of risks faced by the CFIs: credit, market, liquidity, operations, and reputation. IFIs face these risks, along with a slew of concerns that most conventional firms do not, such as equity investment risk, displaced commercial risk, the rate of return risk, and Shariah noncompliance risk (Al-amine, 2008). Moreover, when IFIs are concerned, it has become evident that efforts are made to spread business risk between bank and client of the capital. The bank should be focussed on the customer's prosperity and should be effectively engaged with what is to come to the company's management. Regarding the situation of assets, it can achieve higher profit as a return in the interest, yet it is additionally presented to the more serious hazard. In the Islamic financial framework, this interest dismissal is displaced by the idea that the lender might bear the risk of the indebted person's business activities and contribute in the movement related to gains and losses, thus bringing about an equal distribution of income (Ariff, 2014).

Regarding risk management, the majority of people utilize the term "risk" in both business and regular day to day activities without knowing its actual importance. Risk can be adequately characterized as "ambiguity about the future result and outcome". It should, however, be noted that in the current climate of financial institutions' business activities, different types of risks are present, which is the reason many financial institutions take specific actions to protect themselves against such risks. This kind of action of financial institutions against risk can be considered to be imperfect, and in such cases, banks themselves characterize the adequate risk control which should be utilized as the reason for defining the costs of banking services. Moreover, every financial institution, subject to the business activities it achieves, has a different approach to risk management system and procedure. The procedure needs to incorporate a portion of the stages, for example, the foundation of the proper condition for dealing with all risks, finding the suitable "risk mitigators" and measures, and proper internal controls (Khan & Ahmed, 2001).

The methods for mitigating risks in IFIs involve the use of financial derivative instruments as an innovative solution in the Shariah-compliant industry with the objective of these instruments is proposed for controlling risk and hedging the business risks in justifying the potential negative outcome. However, these derivative instruments are commonly used for speculative activity. In almost all cases, the derivative does not involve delivery by both parties to the contract. Often,

parties reverse the transaction and cash settle the price difference only, which transforms a derivative contract into a paper transaction without the element of a genuine sale. Consequently, a controversial instrument even in CFIs, the derivatives have crept into the debate of permissibility in the Islamic finance stakeholders. Indeed, the derivative instruments by nature are simply a tool for risk management and act as a hedging mechanism.

The position of derivatives in IFIs is well-founded under the framework of risk management and hedging strategy mechanism purposes. Nevertheless, the de facto implementation of several derivative agreements is offensive because of the prominent Shariah clashes with the conventional derivatives carry. Likewise, the possibility that speculation may interfere with the principles of distributive justice and equal risk sharing distribution constitutes one of the principal reasons for prohibiting the use of conventional derivative instruments.

2.6 Overview of Financial Derivatives

The evolution and practices of financial derivatives in CFIs has become necessary evidence of the various benefits gained by business organisations (Bacha, 1999). As suggested by many scholars, it should be possible for derivative instruments to be used to dispense or distribute risks among market participants based on their ability to use them (Al-Amine, 2013; Cisholm & Milne, 2013; Kauliené, 2014). If risk can be effectively distributed, then each party will be better off. Hence, derivatives are said to be the primary instruments for use in the hedging of different types of risk; in reality, however, they are widely used for speculative purposes as opposed to managing risk (Bacha, 1999).

Speculation, in contrast, has a different role and purpose from hedging (Cootner, 1967; Ciner, 2006; Goldstein, Yan, & Liyan, 2014). It involves creating positions for profit from the exchange rate or interest rate movements. In this regard, speculators believe that market forecasts, as shown in the forward rates and long-term interest rate structure, are incorrect as indicators. They work based on the expectation of making profits by taking an open position concerning these rates (Cootner, 1967). Regardless of the many factors involved, however, speculators and hedgers will prefer to sell derivatives in assets rather than to trade in the assets themselves (Clarke, Silva, & Thorley, 2013). As such, being able to side-step the adverse effects of excessive speculation has become the primary concern for many Muslim scholars cum economists.

For the past decade, according to Vashishtha and Kumar (2010) and Bhalla (2007), there has been significant growth in the use of financial derivatives by various corporate and financial institutions. Furthermore, Hull (2006) claims that one of the essential advances in finance over the past 25 years has been the evolution of the derivatives markets. An increased reliance has accompanied this evolution of companies in the capital market as a sustainable funding source. In this regard, derivatives play a significant role in enhancing shareholder value by ensuring access to the most affordable sources of funds. Consequently, financial derivatives have transformed the financial landscape by establishing a new perspective from which to understand, evaluate and manage risks (Gupta, 2006; Turnbull, 2010). In the long run, financial derivatives should be an integral part of any firm's risk management strategy to assure that high-value investment continues.

Contingent credit risks are experienced by financial institutions when they expand their forward position, futures contracts and options, as claimed by Saunders and Cornett (2007). This kind of risk, according to Paddrik and Young (2017), may appear in the event that a counterparty to one such contract is unable to meet their payment obligation. This is because there may be a more severe risk of default associated with a forward contract than with a futures contract (Cornell & Reinganum, 1981; Figlewski, 1984; Poitras, 2006) due to the nature of futures contracts as non-standard contracts. They are formed by the negotiating parties and contain a binding agreement for all of the associated cash flows to be settled at a predetermined time (on contract maturity). Nevertheless, if a business partner fails to pay for futures contracts, then the exchange assumes the position and obligation of the defaulting party (Paddrik & Young, 2017). Therefore, unless a systemic collapse of the financial markets threatens the exchange itself, futures are essentially risk-free.

2.7 Purpose of Derivatives

Derivatives are monetary instruments that are priced depending on or derived from one or more basic financial assets (Gurusamy, 2004; Hull, 2007). Basically, derivatives, like paper money, hold no intrinsic value since their value is dependent on fluctuations in the price of the underlying asset (Maurer, 2002). Gupta (2006) notes that the said assets (instruments) could be in the form of equity shares, stocks, bonds, debentures, treasury bills, foreign currencies or different market indices such as stock market indices, consumer price indexes, and so forth. Likewise, the value of futures contracts or foreign currency forward contracts is determined by the price or value of treasury or foreign currency bills. In addition, several other instruments have also become increasingly

widespread in the financial derivatives markets, including credit, weather, insurance and electricity derivatives (Eydeland & Geman, 1999; Stulec, Bakovic, & Hruska, 2017).

The price of derivative instruments is not arbitrary (Nwaobi, 2008). Instead, it is attributed to the base asset price, which then automatically affects the price of financial derivatives. Derivatives were designed to protect participants in financial markets from adverse movements in underlying asset prices (Kevin, 2007). Thus, transactions conducted in the derivatives market are used to offset the risk of price changes in their respective assets. In turn, the efficient allocation of risk in the economy is a significant function of derivatives (Gurusamy, 2004).

It is important to note that derivatives do not enable risk to be eliminated; instead, they make it easy for those wishing to avoid risk to transfer that risk to those who are willing to assume it (Gupta, 2006). Since such derivative values rely on the market price movements of the underlying assets, they are considered as contingent assets or liabilities, and such transactions are not documented on the balance sheet. However, there is a significant debate as to whether or not there should be an off-balance sheet instrument embedded within the financial derivatives (Gupta, 2006).

2.8 Types of Derivatives

In practice, a number of complex types of financial derivatives are used in many countries. However, in this section, only the most common and widely used types of derivatives available to investors and traders in different financial markets are discussed.

Table 2.1 Categories of Derivative Instruments

| Forwards | Futures | Options | Swaps |
|------------------------------|------------------------------|--------------------------|----------------------|
| Forward Rate Agreement (FRA) | Interest Rate Futures | Call Options | Interest Rate Swaps |
| Foreign Currency Forwards | Foreign Currency Futures | Put Options | Currency Swaps |
| | Stock Index Futures | Foreign Currency Options | Credit Default Swaps |
| | Bond Index Futures | Interest Rate Options | Total Return Swaps |
| | Cost of Living Index Futures | Equity | Swaptions |
| | | Fixed Income | |
| | | Options on Futures | |

Source: Modified from Chisholm (2013)

2.8.1 Swaps

A swap is generally defined as “an agreement between two parties to change the order of cash flows for a specified period of time” (Hull, 2007, p. 149). They provide facilities for financial institutions to manage their interest rates, foreign exchange and credit risk. Swaps are often used by large companies to organise multifaceted and innovative financing that enable them to reduce their borrowing costs and increase control over other financial variables (Gupta, 2006). The swaps market has grown rapidly in recent years (Saunders & Cornett, 2007) to include the various types as discussed below:

- Interest Rate Swaps
Interest rate swaps are defined as agreements between two parties whereby each party enters into an agreement with another party to make a payment on a future date in the same or a different currency up to a predetermined date of termination (Apte, 2007; Smith, 2012; Paunovic, 2013). One party, the ‘fixed ratepayer’, agrees to make fixed-rate interest payments to its counterpart, called the ‘floating ratepayer’, who, in return, agrees to make floating-rate interest payments (Fleming, Jackson, Li, Sarkar, & Zobel, 2012). As such, the parties swap or exchange one series of future interest payments for another based on a fixed principal amount. This notional principal, based on which the fixed and floating rates are determined, is never exchanged (Pepic, 2014); it is used only to calculate the size of the cash flow to be exchanged.
- Currency Swaps
In a currency swap, according to Apte (2007) and Rahnema (1990), the two payment streams to be exchanged are denominated in two different currencies. Both the principal amount and interest of a loan in one currency are swapped with the principal and interest of a loan of equivalent value in another currency (Rahnema, 1990). The parties involved in a currency swap are usually from two different countries. This allows the parties to borrow quickly and inexpensively in their home currency. The converted cash flows are determined at the spot rate, meaning they will not be affected by any subsequent changes in the exchange rates (Gurusamy, 2004).
- Credit Default Swaps
According to Hull (2007), credit derivatives have represented the most progressive improvement in the derivatives markets since the 1990s. The payoff in a credit derivative

is determined by the creditworthiness of the relevant companies or countries. These types of derivatives provide financial institutions with the opportunity to manage their credit risk and they can be used to transfer credit risk from one company to another. The credit default swap (CDS) is the most common type of credit derivative. It is a contract that provides insurance against the risk of default by a particular company. The company is known as a reference entity, with a default by this company being referred to as a credit event. In the event of a credit event such as a default, insurance buyers hold the right to sell bonds issued by the company at their face value; likewise, the insurance seller agrees to purchase the bonds at their face value in the case of a credit event (Hull & White, 2000). The face value of the bond is the sum of money that the issuer will pay at maturity if it fails. The buyer of a CDS makes periodic payments to the seller until such time as the CDS expires or a credit event occurs (Vogel, Banner, & Heidorn, 2013).

- Total Return Swaps

A total return swap (TRS) is a contract between two parties that agree to exchange the total return from a financial asset between them (Choudhry, 2004). It is also referred to as a total rate of return swap, or TR swap. As an example, a company wishes to purchase a portfolio of bonds. It approaches a financial institution which will then buy the bonds on its behalf. Next, the financial institution will enter into a TRS wherein it will pay the return on the bonds to the company and receive the London Interbank Offered Rate (LIBOR) (Fries & Lichtner, 2016). The benefit of this type of contract is that the financial institution reduces its exposure to default by the company (Choudhry, 2004; Cuchet, Francois, & Hubner, 2013).

- Swaptions

A swaption is an option on an interest rate swap (Hull, 2007; Pepic, 2014). It confers upon the holder the right, but not the obligation to execute an interest rate swap at a certain time in the future. With a swaption, the company benefits from favourable interest rate movements at the same time as being protected against unfavourable interest rate movements (Akume, Luderer, & Weber, 2003). Many financial institutions that offer interest rate swaps to their customers will also arrange to sell or buy the swaptions from their clients.

2.8.2 Forward Derivatives

A forward contract is a simple, customised form of a derivative instrument. It is, according to Gupta (2006), “a contractual obligation between a buyer and a seller at time 0 to buy or sell a specified quantity of an asset, which can be of any kind, at a certain future date for a certain price”. The price remains fixed over the life of the contract, but a forward contract relates to forward delivery only; it is not a contract for immediate or spot or cash delivery (Hull, 2007; Saunders & Cornett, 2007).

The future spot price is the spot price of the underlying asset at the time the contract expires (Anthropelos, 2014), which remains uncertain when the participants in the forward contracts market take their forward contracts positions. Hull (2007) states that one of the two parties to a forward contract agrees to buy the underlying asset and is said to have a long position. The other party, who agrees to sell the underlying asset in question, is said to have a short position. The seller is obliged to deliver the asset, and the buyer is obliged to buy the asset.

The price specified in a forward contract is called the delivery price, and the time specified is the delivery date or expiration date (Chow, McAleer, & Sequeira, 2000). Forward contracts do not require any upfront payment; hence no money is exchanged between the counterparties until delivery. Unlike futures, forward contracts are not traded on an exchange; instead, they are traded in the over the counter (OTC) market, usually between two financial institutions or between a financial institution and one of its clients (Hull, 2005). Thus, the buyer and seller involved in a forward contract deal and negotiate directly with each other in order to set the terms of the contract.

- Forward Rate Agreements

A Forward Rate Agreement (FRA) is an OTC agreement between two parties in which one party (the seller of the FRA) agrees to lend a specified amount of money for a specified period to the other party (the buyer of the FRA) in a specific currency at a fixed interest rate (Kuprianov, 1993; Apte, 2007). In practice, there is no actual lending or borrowing of the underlying principal amount; only the interest rate is locked in. An FRA removes all uncertainty from the cost of borrowing or the rate of return on an investment (Saunders & Cornett, 2007).

- Foreign Currency Forwards

A foreign currency forward is “an agreement between two parties to exchange an amount of one currency for another at a specified time in the future” (Gupta, 2006). The exchange

rate is fixed at the time the contract is entered into (Kapila & Hendrickson, 2001). These types of forward transactions in foreign currencies are conducted in the forward exchange market. The cash flow in a foreign currency forward takes place at the time of maturity; that is, at the time the foreign currencies are delivered (Sohmen, 1966). Significantly, more than 90 per cent of forward contracts are settled by the delivery of currencies (Gupta, 2006, p. 301).

2.8.3 Future Derivatives

A futures contract is “an agreement between a buyer and a seller at time 0 to deliver a specified asset at a certain time in the future for a certain price” (Hull, 2007, p.7; Saunders & Cornett, 2007). For a successful futures market, there must be both a huge supply of and demand for the underlying commodity being traded. These must also be quantifiable to allow for standardisation; the prices must be volatile, and the market must be competitive. Therefore, futures derivatives constitute an essential instrument for managing risks or hedging against risks in financial markets due to price fluctuations.

These types of contracts are actively traded all over the world. Saunders and Cornett (2007) state that futures derivatives are typically transacted based on a structured exchange. The exchange produces certain standardised features of the contract. Due to the fact that the parties involved do not necessarily know one another, the exchange will have a mechanism in place that provides assurance to both parties that the contract would be honoured.

The essential nature of a futures contract is the same as that of a forward contract. However, the features and modalities of both contracts are so distinct that forwards and futures have become two different types of instruments used for risk management. In fact, futures contracts were designed as a way of eliminating the disadvantages and shortcomings posed by forward contracts. Kevin (2007) states that the first disadvantage of forward contracts, namely default risk, is removed by the margin system and the clearing house acting as the counterparty in each transaction, while the second disadvantage, that of illiquidity, is eliminated by trading on organised exchanges with the facility for cash settlement.

Essentially, financial futures and commodity futures are fairly similar, except for the fact that they are based on different underlying assets. For instance, commodities such as metals, fruits, vegetables and so on are traded in commodity futures, whereas financial futures involve the trading

of diverse financial instruments such as equity shares, debentures, bonds, treasury securities, currencies and so forth (Kamali, 2005).

Hull (2007) asserts that most of the participants in the futures markets are hedgers. They use futures contracts as a means of hedging in order to manage their risks. These risks may relate to certain commodity prices, the stock market value and foreign exchange rate movements, or to other instruments. All hedgers will be attempting to completely eliminate the risk they are seeking to avoid by entering into their hedges (a so-called perfect hedge), but this type of outcome is rare in practice.

Here is an example of hedging using a futures contract. An investor holding a portfolio of securities may be anxious given that the prices of the shares they hold are expected to fall. When faced with such a risk, i.e. a reduction in the value of his portfolio on account of adverse movements in share prices, the investor will hedge against this risk by taking a position in the stock market index futures that would enable him to make a gain in the event of a fall in share prices (Figlewski, 1984).

Kevin (2007) notes that a long position (buyer) in index futures can also be used as a hedging tool. Speculators may take a short or long position in index futures in order to benefit from future movements in the stock index (Kevin, 2007, p. 252). For example, a speculator who considers a fall in share prices to be likely can take a short position in the index futures by selling the index futures at its current price. Once the share prices have then started falling, he may close out his short position by buying an equivalent number of index futures at the lower price prevailing in the market. In this way, he will make a profit from this transaction. Similarly, a speculator who expects a general rise in share prices can take a long position in index futures. Gupta (2006) discusses different types of financial futures. A cursory introduction to these types is as follows:

- Interest Rate Futures

The interest rate future contract is a significant financial futures instrument. In it, both borrowers and lenders face interest rate risk. The borrower, for example, will incur a heavy loss in the event of an interest rate increase, whereas the lender will incur a loss if there is a fall in the interest rate. These types of instruments enable lenders and borrowers to reduce their interest rate risk. Interest rate-based securities include treasury bills, notes, bonds, debentures, Eurodollar deposits and municipal bonds. In this category, three-month maturity instruments such as treasury bills and Eurodollar deposits are traded on the Chicago Mercantile Exchange (CME), while United Kingdom Government Bonds are traded on the London International Financial Futures and Options Exchange (LIFFE).

- Foreign Currency Futures

Foreign currency futures, as the name implies, are traded in foreign currencies. Therefore, they are also referred to as exchange rate futures. The rate of exchange changes continuously, with different firms exposed to exchange rate risk at different times. The assets, liabilities or cash flows of a firm undergo a change in value with the passage of time due to variations in exchange rates. Thus, exporters, importers, financial institutions such as banks, and large companies use foreign currency futures to hedge against exchange rate risk.

- Stock Index Futures

Stock index futures are based on stock market indices. In the US markets, for instance, stock index futures are futures contracts on a stock or financial index, such as the Dow Jones Industrial Average, New York Stock Exchange Index and Value Line Index, and so forth. One of the most remarkable features of stock index futures contracts is that they do not insist upon actual delivery. Traders are bound to fulfil their obligations only by a retrogressive trade or settlement by cash payment at the end of trading.

- Bond Index Futures

Bond index futures, similar to stock index futures, are also based on particular bond indices, such as bond price indices. Municipal Bond Futures are the most significant example of such contracts and are index futures based on US Municipal Bonds that are traded on the Chicago Board of Trade (CBOT).

- Cost of Living Index Futures

These types of futures contracts are also referred to as inflation futures. A contract is based on a specified cost of the living index, such as the consumer price index, wholesale price index, and so on. Cost of living index futures contracts based on the United States Consumer Price Index is traded on the International Monetary Market in Chicago. These contracts are used to hedge against unanticipated inflation, which is unavoidable. Thus, such futures contracts can be very advantageous to investors such as provident funds, pension funds, mutual funds, large companies and governments.

2.8.4 Options

In forward and futures contracts, both the buyer and the seller, or the long and the short, have certain rights as well as obligations. The buyer has the right and the obligation to take delivery of the underlying asset at the specified price on the expiry date, whereas the seller has the right and the obligation to deliver the underlying asset.

Options are some of the most versatile and unique financial instruments that are available to financial institutions. Gupta (2006, p. 350) states that an option is a contract that provides the holder with the right, but not the obligation, to buy or sell an underlying asset at a predetermined price for a specified period of time. American options give the option holder the right to buy or sell the underlying asset at any time before or on the expiration date of the option. European options, on the other hand, confer upon the option holder the right to buy or sell the underlying asset on the expiration date only (Saunders & Cornett, 2007, p. 306). In reflection of this distinction, European options are cheaper than American options (Smullen & Hand, 2005, p. 295). Most of the options traded on exchanges both in the USA and abroad are American-type options.

Apte (2007) states that options are available on a large variety of underlying assets, such as common stock, currencies, debt instruments, interest rates, and so on. Options on stock indices and futures contracts, in which the underlying asset is a futures contract, are also traded on organised options exchanges. The largest options exchange is the Chicago Board Options Exchange (CBOE). Other exchanges that trade in options include the European Options Exchange, LIFFE, American Stock Exchange, New York Stock Exchange, Philadelphia Stock Exchange (PHLX), CME and the Pacific Stock Exchange.

In addition to these exchanges, financial institutions, corporate treasurers and fund managers provide trade-in options in the OTC market. Hull (2007) points out that the main disadvantage of the OTC market is the risk of default by the option writer (seller). This means that the buyer is subject to credit risk. In order to overcome this problem, market participants can take several measures, including calling for some level of collateral from the counterparties. Although the market participants are free to trade in options using their requirements, there are standard terms and conditions for OTC options, with guidelines for trading practices issued by the International Currency Options Market or the International Swap Dealers Association (ISDA):

- Call Options

A call option gives its holder the right but not the obligation to buy an underlying security at a predetermined price, termed the “exercise” or “strike price”, on or before a specified date (Saunders & Cornett, 2007). In this case, the buyer of the call option pays the writer (seller) an upfront fee known as the “call premium”. This premium is in the form of immediate cash outflow for the buyer of the call option. However, the buyer potentially stands to make a profit if the price of the underlying security is higher than the exercise price at the time the option expires. It can thus be inferred that call options should always be exercised on the expiration date if the stock price is above the strike price (Hull, 2007).

- Put Options

A put option gives its holder the right but not the obligation to sell an underlying security at a predetermined price on or before a specified date. In return, the buyer of the put option pays the writer an upfront fee known as the put premium. If the price of the underlying security is less than the exercise price on the expiration date, the buyer will purchase the underlying security (e.g. a stock) from the stock market at its current price and immediately sell it at the strike price by exercising their put option. Alternatively, if the price of the underlying security is higher than the exercise price at the time of options expiry, the buyer of the put option will never exercise it, and the option will expire without being exercised (Saunders & Cornett, 2007, p. 308).

Options can also be used for speculative purposes. The price of an option contract or the premium depends upon the intrinsic value and the time value of the option. This premium continually changes in line with changes in the price of the underlying asset. Such ceaseless fluctuations in the premium provide speculators with an opportunity to make a profit from options trading. Thus, a speculator might choose to buy an option at a low premium and sell it later at a higher premium in order to benefit from short-term gains.

- Foreign Currency Options

A foreign currency option is “a contract that gives the right to either buy or sell a specified currency at a fixed exchange rate within a given period. The price agreed is called the “exercise price” or “strike price” (Smullen & Hand, 2005, p. 102; Gupta, 2006, p. 440). Foreign currency options have come to assume vital importance in financial markets all around the globe and they are primarily traded on the OTC market. Hull (2007) states that

European and American options are traded on the PHLX in the United States, but the exchange-traded market is much smaller in comparison to the OTC market.

Foreign currency options are an excellent alternative to forward contracts for a corporation wishing to hedge against foreign exchange exposure. For example, an American company is due to receive a certain amount in pounds sterling at a specified time in the future. The company can hedge against foreign exchange exposure by buying put options that mature at that time. Similarly, if the American company is to pay a certain amount of pounds sterling at a specified time in the future, it can hedge against the foreign exchange risk by buying call options that mature at that time (Hull, 2005, p. 298).

- *Interest Rate Options*

An interest rate option is a type of contract that enables traders and speculators to hedge against future changes in interest rates (Smullen & Hand, 2005, p. 215). An interest rate call option gives the holder “the right to borrow funds for a specified duration at a specified interest rate without an obligation to do so, whereas an interest rate put option gives the holder the right to invest funds for a specified duration at a specified return without an obligation to do so. In both cases, the buyer of the option pays the seller an upfront premium” (Apte, 2007, p. 454).

2.9 Derivatives Markets

As far as the trading environment of financial derivatives is concerned, it can be divided into the following two categories:

- 1) Derivatives that are traded via specialised derivatives exchanges or other exchanges are called exchange-traded derivatives.
- 2) Derivatives that are traded and negotiated directly between two parties without going through an exchange or other intermediary are typically called off-exchange or OTC derivatives.

The salient features of both derivatives markets are given in more detail as follows.

a. Exchange-Traded Market

The main objective of exchanges is to aggregate a large number of participants in order to maintain liquidity in a contract. Hull (2007) notes that derivatives exchanges have existed

for a long time. The CBOT was established in 1848 to bring farmers and merchants together. It began trading in call options on 16 stocks in 1973. A rival futures exchange, the CME, was established in 1919. Although options were traded prior to 1973, the CBOE succeeded in creating an orderly market with well-defined contracts.

The world's largest derivatives exchanges in terms of transactions are the Korea Exchange, Eurex (which lists a wide range of European products such as interest rate and index products), the CME and the CBOT. There are also other exchanges that trade in futures contracts, including the Chicago Rice and Cotton Exchange, the New York Futures Exchange, LIFFE, the Toronto Futures Exchange and the Singapore International Monetary Exchange.

Traditionally, derivatives traders have relied on what is known as the 'open outcry system' (Jan de Bel, 1993). In this system, the traders physically meet on the designated floor of an exchange, shout and use a complicated set of hand signals to indicate the trades they wish to enter into, and the details of the commodities on offer are already known. The requirement is for an agreement in principle and for the type and quantity of the contract in question to be specified; however, electronic trading is increasingly replacing the open outcry system on exchanges (Pirrong, 2003; Barrett & Scott, 2017).

In electronic trading, in contrast, a computer algorithm takes the place of traders. Its role is to monitor the bids and offers and find traders on the other side of the market. Usually, a computer screen lists the bids and offers being quoted by traders. When an order matching a bid or offer arises, the computer algorithm matches it automatically, sends the match to the clearinghouse for clearing, and then updates the bids and offers displayed on the screen. Although some American exchanges still rely on the open outcry system, many European and other overseas exchanges have turned to electronic trading (Pirrong, 2003).

b. Over the Counter (OTC) Market

While exchanges represent a common type of trading, not all trading is conducted based on exchanges. The OTC market is an essential alternative to exchanges (Nystedt, 2004; Ruffini & Steigerwald, 2014). It comprises a network of dealers who do not meet physically; instead, they work using telephones and computers. Deals are usually finalised between two financial institutions or a financial institution and one of its clients. Financial institutions often act as market makers for commonly traded instruments. This means that they are always prepared to quote both a bid price (a price at which they are ready to buy) and an

offer price (a price at which they are ready to sell). A key advantage of the OTC market is that the terms of a contract are not predetermined (Fleming, Jackson, Li, Sarkar, & Zobel, 2012). Instead, market participants are free to negotiate any attractive deal. Financial instruments such as swaps, forward rate agreements and exotic options are almost always traded on the OTC market (Garslian, 2016).

Both the exchange-traded and OTC markets are huge; however, a much larger volume of trading is typically conducted via the OTC market than on the exchange-traded market. Kleist and Mallo (2011) show that after contracting by 4% in the first half of 2010, the total notional amounts of outstanding OTC derivatives rose by 3% in the second half, reaching \$601 trillion by the end of December 2010. The notional amounts of outstanding CDS continued to contract, however, falling by 1% in the first half after the 7% decline, whereas outstanding equity-linked contracts shrank by 10%. The notional amounts of foreign exchange derivatives increased by 9%. In commodity derivatives, outstanding amounts grew by 2%, driven mainly by a 15% increase in swaps and forward contracts for precious metals and other commodities (Kleist & Mallo, 2011).

c. Market Players in the Derivatives Markets

Derivatives markets offer an excellent opportunity for liquidity by attracting different types of traders. When an investor wants to take one side of a contract, he can quite easily find someone else who is prepared to take the other side (Hull, 2007, p.8). In this perspective, the following categories of traders can be identified.

d. Hedgers

Hedgers are traders who enter into derivatives contracts to safeguard their position against adverse movements in the prices of the commodities concerned. They represent a cost-effective tool in order to manage price risk (Gurusamy, 2004). Different traders and producers are able to benefit from favourable price movements and hedge against price risk. For example, a miller and a grain farmer mutually conclude an agreement at time 0 for the delivery of a specified quantity and quality of grain at a particular time in the future. The important element of this transaction is that the price to be paid for the grain is fixed at time 0.

The reason for the immediate price determination is the removal of uncertainty concerning the future spot price of grain. Either party might end up incurring a substantial gain or loss

depending on whether any change in the price movement is in his favour or against him. Since both of the parties' face price risk in opposing directions, it is useful to agree on a price in advance that suits the financial interests of both of them. The grain farmer can then determine the level of production in which he can safely invest in order to make a profit, while the miller, on the other hand, can determine the price at which he should seek to sell the flour in a competitive market.

e. Speculators

While hedgers aspire to avoid exposure to adverse movements in the price of an asset, speculators assume either a bull or bear role depending on their perceptions of the likely price movements (Gurusamy, 2004). They will enter into a bet that the price will either rise or fall (Hull, 2005, p. 8). The entry of speculators into the market is shaped by the expected future prices of the underlying assets in question and they may trade with other speculators as well as with hedgers. In derivatives markets, the volume of speculative trading is far higher than the volume of hedging. However, speculation, as Strong (2006) observes, is not the primary purpose of these markets.

f. Arbitrageurs

Arbitrage, in economics and finance terms, is the practice of taking advantage of a price differential between two or more markets. Since arbitrageurs are generally risk-averse, they enter into contracts that they deem will yield them risk-free profits. They will always look for price imperfections in the markets since the presence of different prices in various contracts provides opportunities for arbitrage profits (Gurusamy, 2004).

However, arbitrage is not merely the act of buying a product from one market and selling it for a higher price in another market at some later time. Instead, the transactions must occur simultaneously in order to avoid the risk of the price changing in one market prior to the completion of both transactions. Practically, this is possible with securities and financial instruments whose trade is conducted electronically.

Transaction costs have the potential to eliminate the profit of a small investor. However, a significant investment house will typically face meagre transaction costs in both the stock and foreign exchange markets. Such an institution will thus find opportunities for arbitrage very attractive and will attempt to take advantage of as many such opportunities as possible (Hull, 2005, p. 12).

2.10 Advantages of Derivatives Markets and its Instruments

Financial derivatives are supposed to have the following advantages:

- The most important advantage offered by financial derivatives is the ability to control, shift and manage the risk exposure resulting from volatility in the prices of underlying assets. Farmers, producers and manufacturers are all exposed to the risk of fluctuations in the price of the commodity they produce or hold in their inventory. As such, derivatives assist them in shifting or modifying the risk characteristics of their portfolios appropriately. The newer derivative instruments, such as futures and options, are known to be very useful in mitigating risk exposure through various strategies like hedging and arbitrage (Gurusamy, 2004, p. 568).
- Derivative instruments are cost-effective, thereby enabling traders and producers to finance their supply requirements more efficiently. For example, in an attempt to ensure his raw material requirements for several months ahead, a miller may find that the future price of the commodity he needs is lower than the cash market price. He would, therefore, find it more cost-effective to use derivatives to ensure he has the necessary supplies at the right time and at a price that has been locked in. On the other hand, where the same miller holds a large number of certain commodities, he will fear an eventual fall in prices. In this case, derivatives would enable him to agree on the price and date at which to sell a commodity ahead of time, thereby locking in the price and protect himself against potential future losses.
- Derivatives serve as barometers of future trends in prices that are expected to prevail for a certain period of time. A derivatives market is necessarily concerned with anticipating a future price for the asset being dealt in (Gurusamy, 2004, p. 568). Such a price discovery mechanism plays a pivotal role in the suitable and superior allocation of resources in an efficient financial system.
- No immediate full amount of the transaction is required to be paid in derivatives trading because most derivatives are based on margin trading. As a consequence, traders like hedgers, speculators and arbitrageurs become the operators in such markets. Hence, derivatives trading enhances liquidity and reduces transaction costs in the markets for the underlying assets.

- Derivatives are useful for helping investors, traders and managers to devise strategies by which they can make proper asset allocation decisions and achieve profitable investment goals.
- Derivatives trading has the effect of smoothing out price fluctuations, squeezing the price spread, integrating the price structure at different points of time and removing gluts and shortages from the markets.
- Derivative instruments encourage competitive trading in the markets, where different operators in the markets, such as hedgers, speculators and arbitrageurs, have different risk-taking preferences.

2.11 Disadvantages of Derivatives Markets and its Instruments

Aside from the benefits of derivatives as outlined above, Gupta (2006), in a critical analysis of derivatives, points out that rate-based financial derivatives can produce destabilisation, volatility and oscillation in financial markets. Several such critiques are discussed as follows.

- One of the crucial arguments against financial derivatives is that they promote speculative actions in the markets. Gupta (2006, p.16) argues that barely one to two per cent of the derivative instruments traded are settled by the actual delivery of the underlying assets. Consequently, it is challenging to prevent speculation from being the primary purpose of the existence, evolution and growth of financial derivatives (Norfield, 2012). Sometimes, these speculative trading actions, which are conducted by both professionals and amateurs, will adversely influence genuine producers and traders. Some financial experts and economists believe that speculation leads to better allocation of resources, reduces fluctuations in prices, restores equilibrium between demand and supply, removes periodic gluts and shortages and thus brings efficiency to the market; however, it is unlikely in reality that speculation is useful in all of these asserted areas (Karanshawy et al., 2015). Most of the speculative activities prevalent in derivatives markets are in the form of professional speculation and have the potential to trigger instability in the markets (Slade, 1991; Stout, 1999). It is a reality that sudden and sharp variations in prices are often due to the standard, frequent and widespread consequences of speculation (Norfield, 2012).
- Financial derivatives are supposed to be efficient instruments of risk management, yet this assertion is one-sided. It has been observed that derivatives markets, specifically the OTC

market, are open to being customised due to the fact they are privately managed and negotiated; as such, they are actually highly risky. In this respect, empirical studies have shown that the derivatives used by banks do not lead to the mitigation of risk; rather, other types of risk have evolved from them. It is further argued that if financial derivatives are tools of risk management, then why are 'government securities' used as risk-free securities for trading in interest rate futures, as one of the most popular types of derivative instruments in the world?

- Financial derivatives may generate severe fluctuations in asset prices. However, they can be helpful in promoting price stability if there exists a properly organised, competitive and well-regulated market. Unfortunately, this is not the case in the real world and derivatives can occasionally spark price instability as opposed to stability.
- Derivative instruments can carry excessive risk not only for their users but also for the whole financial system. The fear of micro- and macro-financial crises has led to the unchecked growth of derivatives, which has consequently transformed many market players into big losers (Gupta, 2006).

The potential for the use of derivatives to generate huge losses has led to many financial institutions becoming extremely cautious. The experience behind such huge losses is that derivatives can be used to either reduce risk or to take a risk. Most of the significant losses incurred have been due to the inappropriate use of derivatives, were the actors responsible for hedging against risks have instead opted to speculate.

Hull (2007) underlines the importance of internal control mechanisms to minimise the potential for such losses. Gurusamy (2004) observes that most losses in derivatives markets have arisen due to the lack of transparency and weak internal controls.

2.12 The View of Islamic Finance Stakeholders on Conventional Derivatives

The evolution of Islamic derivative instruments has been the result of product innovation in the global Islamic financial industry (Jobst & Sole, 2012). Islamic derivative instruments are widely used by financial institutions to provide hedging advantages against financial risk in the global market for investors, corporations and governments (Abumustafa & Al-Abduljader, 2007). The derivative itself is merely a contract between two or more parties (Malkawi, 2014); fluctuations in the underlying

asset determine its value, and the most common underlying assets include *Sukuk* (Islamic bonds), stocks, commodities and currencies (Kok et al., 2014). Derivatives markets are increasingly becoming a critical part of modern security markets (Jobst, 2007). The major role played by derivatives markets takes three main forms: risk management, price discovery and transactional efficiency (Abumustafa & Al-Abduljader, 2009).

Conventional derivatives transactions are entered into for the basic purposes of speculation and hedging (Chernenko et al., 2011). In this practice, as explained by Bouslama and Lahrichi (2017), one party's loss is always another party's gain (zero-sum activities). The excessive use of derivatives before, during and even after the last financial crisis had negative consequences for the stability of the banking system (Keffala, 2015). Differing from Shariah-compliant derivatives transactions (Kok et al., 2014), the above-stated practice is prohibited in Islamic law since it involves speculative activities that can lead to *maysir* (gambling) and result from accumulation at the expense of another party's *jahl* (ignorance). In other words, the management of risk in Islamic finance through the use of Shariah-compliant derivative instruments is conducted only for legitimate hedging purposes. It involves only certain types of risks such as market risk, credit risk, currency risk and liquidity risk (Al-Amine, 2008).

Kamali (1996) highlights that several elements of conventional derivatives are prohibited in Islamic finance. The basic ethical principles of Islamic finance are explained by El-Gamal (2008) as prohibiting the elements of *riba* (usury or interest), *gharar* (uncertainty) and *maysir* (speculation or gambling). Such elements have always been resisted on the basis that they lead to the creation of gaps and inequality in society, which is considered unethical. His view of uncertainty is that it is completely banned in contractual terms.

In an extensive review by Sakti et al. (2016), derivatives are deemed to involve a high degree of leverage, which involves paying interest (*riba*), in addition to being zero-sum activities (*maysir*), with no transfer of any physical asset involved (*gharar*) and a high probability of failure in the transaction. Therefore, any financial activities that contain these elements are strictly prohibited. Furthermore, the financial risk involved concerns dealing with the actual uncertainty associated with interest rates, stock prices and commodity prices (Bouslama & Lahrichi, 2017). Derivatives are the tools required to deal with such financial risks (Malkawi, 2014) which, as financial instruments, are dependent on the value of their underlying assets (Maurer, 2002).

From the Islamic law perspective, the sale of an underlying asset must follow Shariah rules and principles for it to be permissible (Kamali, 1996). Malkawi (2014) states that Shariah-compliant

derivatives are often used to hedge and reduce the risks associated with certain transactions. As such, these financial instruments perform a vital role in promoting economic activity by allowing the diversification of risk (Jobst, 2007). Additionally, these instruments are used not only to help with the management of risk but also to reduce the cost of funds, smooth seasonal cash flows, for yield-curve arbitrage and in the creation of synthetic instruments (Sakti et al., 2016).

Shariah-compliant derivatives or Islamic derivatives contain several criteria aimed at ensuring the validity and conformity of the financial transaction (Jobst & Sole, 2009). In order to be Shariah-compliant, it is clearly stated that any business activities or transactions that include *riba* (usury or interest), *gharar* (uncertainty) or *maysir* (gambling) are unlawful (*haram*). As such, any Shariah-compliant transaction, as explained by Rahman et al. (2015), must be based on the income that is derived as profits as opposed to interest. The Islamic Financial Services Act 2013 further stipulates that any transaction based on Islamic derivatives must comply with Shariah and needs to have a well-specified market value, price and schedule of the payment obligation.

In addition, Shariah-compliant derivatives are viewed as being some of the most modern and applicable derivatives because they are not restricted to payment in the form of assets. On the contrary, as mentioned by Balçılar, Demirer and Hammoudeh (2015), the chances of a transaction being biased in favour of either the lender or borrower are reduced by the fact that the risk is shared by both parties. Profits earned are deemed to be viable under Shariah only if they generate income for both sides. Initiatives have been taken to design Shariah-compliant derivatives that facilitate a considerable reduction in hedging-based activity and these include *salam*, *istisna'* and *ju'alah* contracts (Jobst & Sole, 2009).

Rahman and Kassim (2017) observe that a transaction in Islamic finance is valid if the commodity involved is in a physical form, in addition to there being a mandate stipulating that the seller has the rightful owner of the product or commodity sold. A practical application of Shariah compliance is highlighted by the fact that it promotes an equitable system for distributing public goods (*maslahah*). Shariah compliance, therefore, according to them, also promotes the clear identification of the rights and obligations of investors, thus increasing the chances of asset performance-based payments actually being received.

2.13 Shariah Compliant Derivatives or Islamic Derivatives: Quo Vadis?

Maurer (2001) argues that derivatives are considered to be risky and dangerous since the fleeting 'future' that is being hedged against in a futures contract is continually dependent upon unknown future actions. Bouslama and Lahrichi (2017) explain that with conventional derivatives, one party's loss is always another party's gain (i.e. they are zero-sum activities). Moreover, the practice as described above is prohibited in Islamic law. It is not accepted within the tradition of Islamic finance due to the involvement of speculative activities that can lead to *maysir* (gambling) and result from accumulation at the expense of other parties' *jahl* (ignorance).

Shariah compliant or Islamic derivatives contain a set of criteria to determine whether or not the financial transaction is valid. Shariah clearly states that any business activities or transactions that include the elements of *riba* (usury or interest), *gharar* (uncertainty) or *maysir* (gambling) are unlawful (*haram*). According to Rahman et al. (2015), to be Shariah compliant, transactions need to be based on profit and not interest. However, this is not the case in Shariah compliant derivative transactions (Kok et al., 2014), whereby there must be a mutual benefit for both parties, and no party becomes the 'loser' in a transaction. Despite this, Malkawi (2014) confirms that Shariah-compliant derivatives are often used to hedge and reduce the risks associated with certain transactions. These financial instruments thus perform a vital role in promoting economic activity by allowing the diversification of risk (Jobst, 2007). Conventional derivative transactions thus contain the following prohibited elements (refer to Table 2.2).

Table 2.2 Prohibited Elements in Conventional Derivative Transactions

| Prohibited Element | Explanation |
|--|---|
| Interest (<i>Riba</i>) | Derivatives include a high level of leverage, which brings about paying interest. The estimating or potentially rates in derivative contracts are dictated by interest differentials when the idea of interest is entirely restricted in Islamic law. |
| Uncertainty (<i>Gharar</i>) | Derivatives are non-compliant with Islamic law because of the uncertainty of object characteristics and delivery results in <i>gharar</i> (as in the case of a futures transaction on agricultural commodities). |
| High Probability of default and Speculation | Derivatives include intentional risk-taking, the danger of a loss is generally critical, and it can be kept away from; in this manner, speculation breaks the needs of tolerable risks. |

| | |
|---|--|
| No transfer of a physical asset or commodity | Most derivatives do not know about “genuine” transactions, whereby ownership of the underlying asset is transferred from one party to another. |
| Zero-sum activities | Derivatives are zero-sum game activities by purpose, which means that one party’s loss is always and another party’s gain. |

Source: Modified from Jobst (2007)

Furthermore, Jobst and Sole (2009) state that these types of financial derivative instruments are used to protect companies or financial institutions against risks such as interest rate unpredictability, price instabilities of physical commodities (e.g. oil, gold and other imported goods) and financial securities (stocks and sukuk) and unexpected currency fluctuations. Bacha (1999) adds that financial derivative instruments are used by businesses not only for hedging (*tahawwut*) and arbitrage but also as a competitive tool in marketing strategy.

In other words, a derivatives transaction can be assumed to be a bilateral contract or agreement for an exchange of payments involving the exchange of cash flows between parties based on the value of an underlying asset (Malkawi, 2011). In principle, Islamic derivatives differ from conventional ones due to the prohibited elements stated above and the requirement to comply with Shariah rules and principles. Table 3 below highlights the differences between conventional derivatives and Islamic derivatives.

Table 2.3 Differences between Conventional and Islamic Derivatives

| No. | Feature | Conventional Derivatives | Islamic Derivatives |
|-----|--------------------------|--|--|
| 1. | Business approach | The purpose and operating modes are based on secular principles. | The purpose and operating modes are based on Islamic law and comply with Shariah rules and requirements. |
| 2. | Principles | Interest (<i>riba</i>), a risky or hazardous sale (<i>gharar</i>), gambling and speculation (<i>Maysir</i>). | Shariah principles. |
| 3. | Legal | Common-Law | Islamic/Shariah Law |
| 4. | Documentation | International Swaps and Derivatives Association (ISDA). | ISDA and the International Islamic Financial Market (IIFM). |

Source: Inspired from Jobst (2007)

2.14 Deconstructing Shariah Compliant Derivatives in IFIs

The Islamic finance industry, commonly synonymous with 'interest-free banking', has grown at a rapid pace within global financial circles over the past three decades (Khan, 2010). Significant numbers of individuals and financial institutions have turned to Islamic banking business activities both to satisfy their spiritual and ethical values and to employ its innovative risk management and as hedging instruments as a critical method of ensuring a stable and predictable income stream that is derived in line with Islamic law. According to Kunhibava (2010) and Kamali (2008), the fundamental requirement for IFIs within Shariah is that they must not engage in any of the prohibited elements, which include interest (*riba*), excessive uncertainty (*gharar*), gambling and speculation (*maysir*) and ignorance (*jahalah*).

From analysis conducted by Shariah scholars (Al-Suyuti, 1983; Kamali, 2008), three Shariah legal maxims are covering the application of approaches to risk management and hedging strategy in IFIs, as outlined below:

1) *Harm is to be eliminated* (بإزالة الضرر):

This Shariah legal maxim indicated by the lawmaker/legislator is either to protect benefit or to anticipate harm. Any component that conveys harm upon a group or institution must be removed. Literally, the Arabic word '*al-dharar*' (الضرر), as stated in the maxim above, signifies danger and damage. Therefore, technically speaking, this maxim is aimed at the promotion of public goods (*maslahah*) and avoids inflexibility and complicated matters. As risk is deemed to equate to danger and harm, the notion relates to management by means of risk-sharing, not risk shifting.

2) *The benefit goes with liability* (بإلزام الخراج):

Literally, the Arabic word '*al-kharaj*' (الخراج), as stated in this maxim, means to return or profit, while '*al-daman*' refers to risk and liability. Technically it refers to the risk of or liability of an asset being harmed or destroyed. Since different types of risk are always inherent in business opportunities, the way in which such risks are controlled and managed is critical for IFIs from the viewpoint of this legal maxim. Furthermore, Jorion and Khoury (1996) add that the connections between profit and liability in business activities mean that a high level of risk will require a high return or profit. Risk is unavoidable since it is part of the business process of obtaining a return or profit. In other words, since the risk is

unexpected and volatile in nature, then so too are the vast majority of financial transactions since no one is able to derive any compensation without taking any risk.

3) *Liability accompanies gain* (بالغنىم الغرم):

The general meaning of this Shariah legal maxim is that IFIs should accept any possibility of risks and be responsible for anything related to the costs of a transaction that attend to managing the fund or asset. In the meantime, IFIs are entitled to enjoy any benefit or profit resulting from a transaction.

The promotion of Islamic derivative instruments as a technique for hedging risk has occurred following product innovation in the global Islamic financial industry. Alternatives have been developed to the ways of engineering and meeting the needs of modern society (Mohamad et al., 2014) in terms of providing products and services, expanding the scope of business activities and exploiting in a beneficial way the development of financial markets (Al-Salem, 2009). In a rational way, a number of financial institutions have embraced the product innovativeness of Islamic derivatives as an ideal solution to offer to their corporate clients as Shariah-compliant risk transfer mechanisms that can be used by Islamic investors to hedge their risk exposure while also avoiding speculative activities. For instance, CIMB Islamic Bank Berhad, as the global Islamic banking services franchise of CIMB Group based in Malaysia, first introduced an Islamic profit rate swap contract in 2005. This is a Shariah-compliant version of an interest rate swap contract which is considered to be an innovative financial instrument within Islamic finance (Al-Salem, 2009).

Jobst (2013) specifies that derivatives could also enhance liquidity management, lower funding cost and enable the efficient transmission of funds from borrowers and lenders based on practices that are universally acceptable in Islamic finance. Furthermore, the financial risk comprises the actual dealing with the uncertainty of interest rates, stock prices and commodity prices (Bousslama & Lahrichi, 2017). These financial instruments in Islamic finance are widely used by financial institutions to provide hedging advantages in the global market against the financial risk to investors, corporations and governments (Abumustafa & Al-Abduljader, 2007).

The above discussions demonstrate that the creation and practical application of Shariah-compliant derivative instruments are highlighted by the fact that they promote an equitable system of distributing public goods (*maslahah*) and developing the future of the Islamic financial industry. According to Rahman and Kassim (2017), Shariah compliance also promotes the clearly identifiable rights, obligations and rights of investors, thus enhancing their chances of receiving payments based on asset performance.

Furthermore, the technical Shariah requirements-based approach can be used as an alternative to growing the Islamic financial industry by drawing upon the range of principles of Islamic jurisprudence (*fiqh al-muamalat*) that allow for Islamic financial engineering to solve the issue of gaps between all Islamic finance stakeholders in Islamic derivatives transactions (Jobst & Sole, 2009). Therefore, a more comprehensive understanding to enable an exploration of the rationale of proposing Islamic derivatives in IFIs is becoming critical as a means of ensuring compliance with Shariah guidelines in order to provide significant benefits, not only on the theoretical level but more importantly on the experimental stage.

2.15 Conclusion

In this chapter, a review of prior scholarly publications in the field of Islamic finance, Shariah compliant derivatives and its instruments has been given. In view of these findings, this study examines the conceptual and operational aspects of financial derivatives instruments with a view to modifying them into Shariah compliant derivatives to unlock the purpose of hedging strategy in IFIs. Moreover, Shariah compliant promotes clearly identifiable rights, obligations, and rights of the investors, thus enhancing the chances of receiving high asset performances. The next chapter will discuss the organizational identity theory as a theoretical lens for this research.

Chapter 3 Organizational Identity Theory as a Theoretical Lens for the Research

3.1 Introduction

This study has used the organisational identity theory as a lens in framing the discussion to answer the above research questions. The aim of the research is to explore the process of negotiations, translations, and modifications of Shariah compliance principles in engaging with derivatives transactions and their financial instruments in IFIs. This theory has been used across disciplines as it deals with sociological and psychological identity to organisations (Gioia, Schultz, and Corley, 2000). This chapter, then, elaborates on the organisational identity theory in more detail to rationalise its potential in helping to make sense of how IFIs as an organisation in managing their business demands and maintaining its ethical identity claims the case product innovation of SCD that was introduced by the IFIs as a stakeholders demands that effect their identity claims as shariah compliance financial institutions offered an alternative hedging and risk management solutions to its clients and investors. Moreover, the identity claims, as a means how the IFIs engaged with the current volatility conditions reflected based certain level of understanding, negotiations, modifications, and translations processes in dealing with the financial derivatives transactions and its instruments. The interaction between these concepts provides an indication that organisation identity theory is relevant for this study. In this chapter I aim to extend the understanding through this theoretical lens by elaborating the definition, concepts, and dimensions of SCD. Prior to its conclusion, this chapter visualises the context in which SCD may be appropriate for use as IFI's hedging strategy in providing an alternative financial solution and the benefit of offering their ethical investment opportunities across multiple business sectors. This will enable a more complete analysis of empirical data emerging from the study as well as helping to establish a link between the research questions, research context and the data (Chapman & Kern, 2012; Chua & Mahama, 2012; Humphrey, 2014).

3.2 Organisational Identity Theory as Theoretical Lens

Historically, the organisational identity theory was first initiated by Albert and Whetten (1985) and is defined as a set of statements that organisation affiliates remark to be central, enduring the qualities, and differentiating characteristic of organisations. Kreiner et al. (2015) describe the foundation of organisational identity being three elements, namely centrality, endurance, and distinctiveness. According to Gioia, Schultz, and Corley (2000), organisational identity theory can be used to explain how an organisation should develop

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its commercial strategy approach and changes (Gioia, Schultz, and Corley, 2000). In addition, Anthony & Tripsas (2016) argue that the organisational identity is also an appropriate instrument in explaining how identity and innovation in an organisation relate one another.

Alternative views from scholars such as Dutton & Dukerich (1991) and Bernstein (1984) suggest that the organisational image has a direct connection to organisational behaviour. Thus, it will definitely portray the members of the organisation reaction toward the demands from the environments or outsiders such as customers, competitors, and regulators (Ashforth & Mael, 1996; Berg & Gagliardi, 1985; Fombrun, 1996; and Gioia, 1998). Gioia, Schultz, and Corley (2000) believe that the organisational identity theory and the organisational image have a strong reciprocal relationship. It means that the identity is created by the organisation to reflect the missions and visions of the organisation, and it should be what the outsiders perceive the organisational image to be. If the image of the organisation is described in contrast to the identity, the organisation will react to rectify the conditions. In short, they argue that the organisational identity theory could be used to explain changes and the instability of identity in one organisation, or in other words, organisational identity should be dynamic and flexible to suit the environmental conditions (Gioia, Schultz, and Corley, 2000).

For IFIs, derivatives are the result of financial innovation that responds to hedge the risks in complex financial industry atmospheres (Jobst and Sole, 2009). These derivatives instruments should contain injunctions about usury (*riba*), risk (*khatar*), uncertainty (*gharar*), speculation, and gambling (*maysir*) that do not just duplicate conventional derivative instruments without maintaining its unique identity and image as a Shariah-compliant financial institution (Abedifar et al., 2015).

On the other hand, there is a high pressure for IFIs to manage, minimise, and hedge the business risks such as profit rate risk, foreign exchange risk, and commodity price risk whereby the IFIs and/or the customers (investors and traders) are interacting with the huge market volatility, and at same time are forced to enhance the risk mitigation in an effective way to be more competitive in the financial market (Al-Amine, 2013). In this case, IFIs have to respond to this demand in innovative ways by combining business and stakeholders needs in compliance with the Shariah rules and principles (Kok et al., 2014). According to organisational identity theory, IFIs' survival or well-being is heavily reliant on how the institutions react to the stakeholder's pressures in terms of constructing new plans, developing strategies, and implementing their businesses (Gioia, Schultz, and Corley, 2000). Moreover, the innovation of derivatives instruments in IFIs is about customising conventional derivatives in line with the structure of the Shariah contract (Bacha, 1999).

3.2.1 Dynamics of Organizational Identity and Innovations

A number of organisational experts such as Brown & Eisenhardt (1997), D'aveni (1994), Eisenhardt (1989), and Gustafson & Reger (1995) propose that it is an important requirement for the organisational survival and growth to have responsive ability to adapt to highly changing environments. In addition, Gagliardi (1986) argues that some organisations also have to make a change in order to preserve their identity. This statement seems paradoxical to the previous statement, but it gives a broader understanding of the organisational identity.

According to Anthony & Tripsas (2016), innovative activities can be put in a range from identity-enhancing to identity-stretching to identity-challenging that create business opportunities for growth. In their opinion, the organisational identity and innovative activities complement each other, bringing about a self-reinforcing constructive criticism circle.

In this case, organisational members are all aware of what activities are suitable in view of a mutual understanding of what the organisation stands for. This knowledge can also be classified empirically focusing on which innovative activities ought to be consolidated and which ought to be rejected. Lastly, the connection between organisational identity and identity-stretching innovations is commonly constitutive and subject to a solid criticism dynamic. In this case, both identity and innovative actions incrementally widen (Anthony & Tripsas, 2016).

Rindova, Dalpiaz, and Ravasi (2011) add that the various identity changes reflect continuous cycles of empowering and extending. In their opinion, innovative activities across product development, creation, and advertising originate from new social resources in the organisation's atmosphere, which at that point inform identity redefinition, prompting both strategic adaptability and unconventional strategies. In the context of identity challenging innovation, both innovation and identity change may not only be problematic for the organisation to achieve but may also result in organizational identity and innovation becoming inconsistent with each other. Organisational identity can create innovation in response to stakeholders' needs. Furthermore, Anthony & Tripsas (2016) argue that organizations respond to identity-challenging innovation opportunities in three principal ways: they do not see an innovation opportunity; they see an opportunity. However, they do not seek after it, or they observe and try to create the innovation.

In the context of this research, organizational identity theory is used to explain how IFIs affect the creation of innovative derivative instruments as risk management tools to be used as business hedging solutions in line with the Shariah rules and principles. According to Maurer (2001), the conventional derivatives considered risky

and uncertain due to the derivatives are hedges against in a futures contract and are is always contingent upon the unknown future event.

3.2.2 Ethical Identity

Ethical identity can be defined as a collection of subjective meanings and experiences that are used by an organisation to address questions about its core features, self-identity, or character (Alvesson and Roberts, 2016; Whetten, 2006). When an organisation attempts to differentiate itself from other organisations, this may lead to questions about identity.

Organisational identity is important as a means for the members to identify the distinctive or key characteristics and also to understand how these affect the way an organisation deals with and processes information (Dutton et al, 2004; Gioia and Thomas, 1996).

Organisational identity is also used to identify what the organisation's core belief or what they stand for (Alvesson et al, 2008; Ravasi and Phillips, 2011). This reflected in the codes of ethics, operational processes, leadership strategy as well as issues surrounding the goals/missions. This is sometimes referred to as the organisation's ethical identity (Verbos et al, 2007). Berrone et al (2007) argue that this ethical identity is just as important as profits for an organisation.

A company's ethical identity is the result of a process known as ethicalisation (Gray and Balmer, 2001; Romani and Szkudlarek, 2014). It has been suggested that there conflict may arise between the ethical views and the existing organisational prescriptions and this may require either a transformation or resolution in order to create a new organisational identity (Giorgi et al, 2014; Girogi and Palmisano, 2017).Issues may also arise when there is a mismatch between the ideals or personal understandings of members of the organisation and the ethical ideals that are being promoted by the organisation (Alvesson and Willmott, 2002; Klein, 2010).

It is worth noting that ethical identity is not fixed and instead is constantly shifting and responds to changes in external stimuli, circumstances and interests (Thornborrow and Brown, 2007). Brown (2014) suggests that the process of identity change is iterative and is a response to interrelated discourses operating at both organisational and societal levels. There may a particular "voice" that rises above the rest and becomes stronger and more prominent.

Ethical identity drift occurs when there is a deviation from the organisations planned purposes that is caused by infusing and sustaining particular ethical views. This may result in a gradual loss of clarity when interacting with shareholders (Balmer et al. 2007, Koning and Waistell 2012; Oliver et al. 2010). There are two possible solutions to this ethical drift: a) using “invisible mending” to restore the status quo or b) adapting the existing organisational practices (Gherardi, 2006, pg 118).

Ciborra (2002) mentions that identity drift is often a long process and “fragile” process involving the alignment of a multiplicity of interests and authorities that may not be resolved. This “multivocality” allows the organisation to respond to the multitude of competing interests, knowledge, or beliefs.

Studies conducted of IFIs, show elements of the drift from equity-based transactions/products to debt-based products which are more acceptable to Western financial markets (Diwany 2010; Fang 2014; Siddique and Iqbal 2017). The legal positions or *fatwa* that are associated with the IFIs ethical identity, often have to be modified to meet the needs of contemporary financial markets (Ullah et al, 2012).

Islamic substitutes of conventional derivatives products and the introduction of fixed returns on Islamic financial products (Hidayah et al. 2018) are seen as two methods which represent a deviation from their earlier ethical identity (Maurer 2001; Rethel 2017).

The issue of ethical identity reveals that it is a complex process involving multiple voices and consequently requires appropriate responses from within and outside the organisation (Oliver et al, 2010). Thus, for IFIs, it is a time consuming and complicated process requiring not only adaption but also adjustment, but which is ultimately a useful strategy that allows them to operate within the conventional banking system.

3.2.3 Image Blurring

Image blurring is defined as the “simultaneous projection of multiple and inconsistent images about an organisation (Ravasi and Phillips, 2011). Pratt and Foreman (2000) maintain that image blurring also refers to the “multiple and inconsistent identity beliefs/and or image aspirations between members.” This may then also result in detachment from the traditional identity claims by management.

3.2.4 Identity Reassessment

Misalignment between the identity beliefs and strategic projections may then result in the need to introduce a process of identity management in order to realign the beliefs and create a new strategy that can assist in dealing with the external expectations. The process begins with a detailed assessment of what both the

members and customers view as the core/key features of the organisation. The end result of the identity reassessment process is a review of the organisation's features with a view to create a new set of views that is better aligned to the external environment (Ravasi and Phillips, 2011).

3.2.5 Identity Tuning

Identity tuning refers to the process by which an organisation makes the identity claims accessible to external players and encourages these claims to be incorporated into the organisation's beliefs. This process often requires the senior management to reduce inconsistencies in their strategic projects). The central purpose of identity tuning is to make sure that there is consistency in the way in which the organisation communicates with the peripheral actors (Ravasi and Phillips, 2011).

3.2.6 Identity Claims

Identity claims may be a source of coherence for an organisation (Albert and Whetten, 1985). Members may oppose initiatives that differ from an organisation's identity beliefs because they may be 'difficult' to understand or may be considered 'inappropriate' for the organisation. In addition, it has been suggested that leaders in an organisation may utilise identity claims to 'control' employee behaviour (Alvesson and Karremann, 2007 and Alvesson and Wilmott, 2002). According to Dutton and Dukerich (1991), identity claims exert a significant influence on strategic investments and strategic projections. Additionally, identity claims are a method for assessing how important an event is and in turn, the level of attention that these events deserve. Ultimately, these identity claims will be a determinant of the allocation of resources

3.2.7 Identity Consistent strategy

Following a period of misalignment with the strategic projections, the IFI team will strive to engage with a policy of identity reassessment whereby a new set of identity claims will be selected. The hope is that these new claims will be more aligned with the internal and external factors. More significantly, these new identity claims will assist in providing a sense of consistency to the strategic decisions that are made. This is referred to as the identity consistent strategy (Ravasi and Phillips, 2011).

3.3 IFIs Viewed Through the Organisational Identity Theory

As discussed in Chapter 2, definitions of IFIs can be found in the literature with the comparison of CFIs, while the SCD instruments used for the hedging strategy as part of innovations in IFIs perspective. In the context of this research, organizational identity theory is used to explain how IFIs affect the creation of innovative derivative instruments as risk management tools to be used as business hedging solutions in line with the Shariah rules and principles. According to Maurer (2001), the conventional derivatives considered risky and uncertain due to the derivatives are hedges against in a futures contract is always contingent upon the unknown future event.

For IFIs, derivatives were the result of financial innovation that responded to hedge the risks in complex financial industry atmospheres (Jobst and Sole, 2009). These derivatives instruments should contain injunctions about usury (*riba*), risk (*khatar*), uncertainty (*gharar*), speculation, and gambling (*maysir*) that do not just duplicate conventional derivative instruments without maintaining its unique identity and image as a Shariah-compliant financial institution (Abedifar et al., 2015).

On the other hand, there is extreme pressure for IFIs to manage, minimise, and hedge the business risks such as profit rate risk, foreign exchange risk, and commodity price risk whereby the IFIs and/or the customers (investors and traders) are interacting with the huge market volatility, and at same time is forced to enhance the risk mitigation in an effective way to be more competitive in the financial market (Al-Amine, 2013). In this case, IFIs have to respond to this demand in innovative ways by combining business and stakeholders needs in compliance with the Shariah rules and principles (Kok et al., 2014). According to the organisational identity theory, IFIs' survival or well-being relies heavily on how the institutions react to the stakeholder's pressures in terms of constructing new plans, developing strategies, and implementing their businesses (Gioia, Schultz, and Corley, 2000). Moreover, the innovation of derivatives instruments in IFIs is about customising conventional derivatives in line with the structure of the Shariah contract (Bacha,1999).

Consequently, organisational identity theory is perceived to be an appropriate model in understanding how IFIs react differently in response to the business innovation requirements as compared to CFIs and as a result, the way they manage and mitigate risks is also different to CFIs. In responding to the stakeholders' demand for innovation, IFIs have to create products and services in compliance with the Shariah principles such as risk-sharing, materiality, non-exploitation, and non-financing of sinful activities (El-Gamal, 2008) whereas CFIs mainly base their products and services on general demands which are sometimes in conflict with the Islamic finance principles (Khan, 2010). This study argues that the way IFIs response to innovation will be different

from CFIs, and this can be explained by the organisation identity perspectives/lens. The conceptual framework used by this study is presented in Figure 3.1 below:

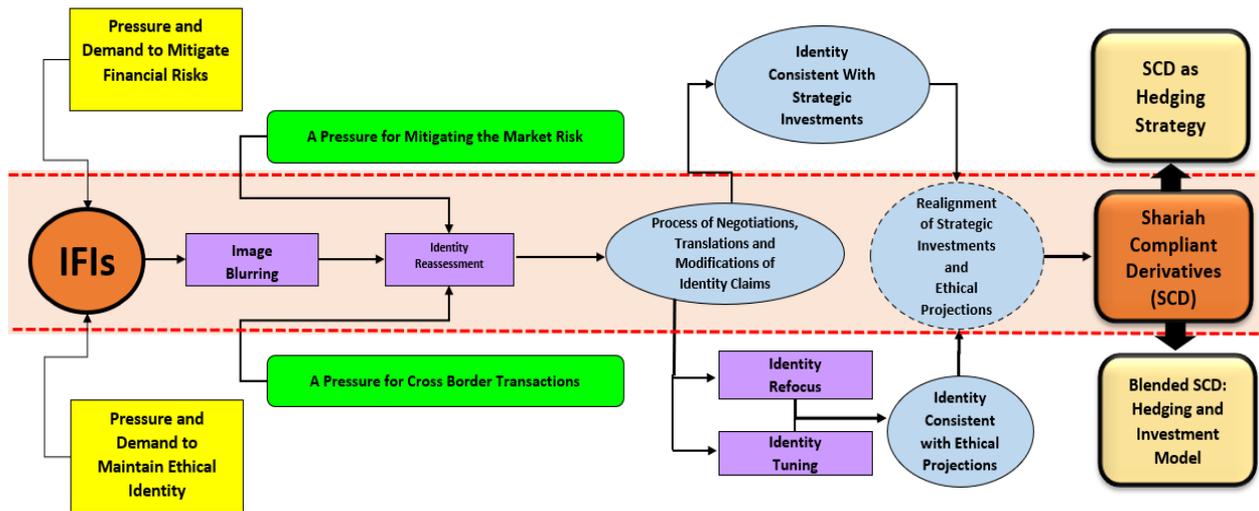


Figure 3.1 Framework of Analysis on IFIs Hedging Strategy

Source: Modified and adopted from Ravasi and Phillips (2011)

Pratt and Foreman (2000) argue that image blurring can be classified as changeable identity beliefs inspired by traditional identity claims. The engagement of IFIs with derivative transactions was motivated by Islamic finance business demand to protect shareholders interests that fit with the available liquidity instruments in the market (Dutton and Dukerich, 1991; Rindova and Fombrun, 1999). There is pressure to mitigate business risks to achieve the targeted measurer of businesses/investments performance and to increase its significance in the market. Conversely, the market logics set a prescription for the way financial institutions respond to such pressures to achieve the target performance by using what the market believes as sustainable liquidity instruments.

Derivative instruments have become a liquidity and risk mitigation tool for the global financial industry to achieve sustainability of economic growth (Kammer et al., 2015). These tools, however, contradict what IFIs believe to be ethical financial transactions, due to the high level of uncertainty with fabricated underlying assets in derivative instruments. It becomes more challenging for IFIs to maintain its ethical identity that is framed under the basis of the Shariah principles. Additionally, there is a push factor by the external perceptions to

follow the market sense in dealing with the derivative transactions to control market volatility based on the objectives of protecting the public interest (Ameer, 2010).

Gamal (2006) identifies the strong element of *gharar* (uncertainty risk) that these financial derivatives contain. Consequently, there is an increase in moral and ethical issues. From the point of ethical identity management strategies, this is not in line with IFIs' attempts to move from traditional/classical financial systems to provide an ethical alternative by avoiding interest and debt-based transactions.

In line with Ravasi and Phillips (2011), IFIs' organizational members start the process of reassessment of identity beliefs to control the investment performance target and manage the business risks from the unpredictability of the global financial market. In this respect, the outcome will be the negotiations and modifications of identity claims of the organisation (Whetten and Godfrey, 1998). At this point, IFIs face pressures to blend the globally acceptable derivatives instruments and label it to be Islamically acceptable (halal) and Shariah-compliant (Kamali, 1999b).

In order to resolve the tensions between the need to maintain IFIs' ethical identity while meeting the strategic investments and ethical projections, IFIs attempt to customise the conventional derivative instruments and to fabricate an innovative Shariah-compliant derivative, such as the hedging model solution. Jobst and Sole (2009) discuss this approach as a blending of Shariah concepts with the conventional derivative instrument by using *wa'ad* (unilateral promise) and the commodity Murabahah (commodity sell and buy back product). The hedging instrument serves not only as a risk management tool against credit exposures and profit rate movements but is also as a way of reducing the cost of funds and facilitates smoothing periodic cash flows (Jobs and Sole, 2012).

As shown in Figure 3.1, IFIs face two organizational demands, namely business demands, and environmental stakeholders' demands that influence organizational activities as a whole. When there is higher pressure to mitigate business risks as compared to pressures to maintain ethical identity, IFIs will react by focusing more on profit maximization orientation that somehow will degrade Shariah principles which are the identity of IFIs or as Kuran (1993, p.311) claims that IFIs would inevitably be "sticking so closely to the techniques of conventional banking", that they would be indistinguishable from the latter. At this point, the image of IFIs will be perceived and portrayed as inconsistent by Islamic finance stakeholders.

3.4 Organizational Identity and IFI's Ethical Identity Principles

According to Ravasi and Phillips (2011), this situation may lead to a gradual loss of clarity and consensus inside the organization, resulting in different and partially inconsistent strategic projections. In other words, this

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situation is called ‘image blurring’. Image blurring is a starting point for organizations, such as to engage in ‘identity reassessment’, which involves a process of negotiations, translations, and modifications of the identity claim. IFIs need to respond to the dual internal and external pressures from the global financial market and business/investment performance target. This induces the need to reassess their identity in order to sustain within the global financial industry.

In such a condition, IFIs are forced to start the process of realignment of strategic investments and ethical projections of the organization with the process of negotiations, translations, and modifications of current products and services. At this stage, the IFIs will consider the alignment of members around a common understanding of the organization as crucial to the projections of a clear and coherent image (identity refocus). This activity will be done together with the identity tuning which is a set of initiatives aimed at ensuring that the organization accurately communicates to their stakeholders the images projected by the organization (Ravasi and Phillips, 2011).

The SCD were introduced as part of the hedging strategy to help with mitigating financial risks that IFIs face in their dealings with investors and clients. Due to the financial instability of IFIs, Conventional Derivatives Instruments are often used. Thus, it has become clear that there is need for new innovative instruments that are compliant with Islamic finance principles. All of the IFI’s new products need to be submitted by the product management team for final approval by the Shariah Committee members. The process involves 7 stages (see Chapter 6, figure 6.2).

This process then led to a collaboration in 1985 between the International Islamic Finance Market (IIFM) and the International Swaps and Derivatives Association (ISDA) who jointly developed with the *Tahawwut*, a Master Agreement (IDMA) which was the first financial industry framework document that could be applied across all jurisdictions. The aim of this agreement was to make the global derivatives market more effective and efficient and safer. However, the ISDA 2002 Master Agreement was unable to facilitate the Shariah-compliant business transactional because there is a requirement that all Islamic hedging transactions must fulfil the conditions for the legality of contract as bounded in Islamic law that they must be free from the prohibited elements of *riba* (interest), *gharar* (uncertainty) and *maysir* (gambling and other speculation related activities.)

As a result, IFIs have tried to re-design the conventional derivatives instruments by introducing “elements” or “flavours” of Islamic finance principles which mirror conventional derivatives instruments, but still maintain their ethical identity framework. Following much work, two types of Shariah contract structures have been

introduced for the Islamic Profit Rate Swap (IPRS) as part of the Shariah-compliant derivatives instruments and these are the Bai al-inah concept and the Commodity Murabahah concept which is based on the *tawarruq*.

After several years of study, on the 1st of March, 2010, the ISDA/IIFM Tahawwut (Hedging) Master Agreement (TMA) was released to provide a global standardised framework containing the general terms and conditions parties needed to adopt when entering into Shariah compliant hedging transactions by applying the Shariah contract of *Murabahah* and the *Wa'ad* structure. The aim of the TMA is to facilitate the risk management function of IFIs and is seen as a milestone in the development of risk management in Islamic finance as well as a template for the the *Mubadalatul Arbaah* (MA) for Islamic profit rate swaps, as the natural step in the development of Islamic hedging instruments. The TMA continues to be globally accepted by market players and regulators, yet there is still a need for market harmonisation in combining both Shariah compliant and business requirements into the financial documentation.

In structuring Shariah compliant derivatives the TMA, ISDA and the IIFM serve as a hedging mechanism to hedge the market risks that are common in Shariah-compliant transactions. Due to the restrictions against the involvement of “riba”, “gharar” and “maysir”, this has led to a number of amendments in the Tahawwut Master Agreement compared to the ISDA Master Agreement.

3.5 The Shariah Compliant Derivatives as Hedging Strategy

In IFIs, the hedging strategy involves the use of Shariah compliant derivatives instruments in cross-border transactions to allow effective dealing with foreign currency transactions. since fluctuations in foreign currency can generate losses as well as gains for IFIs. Thus, the use of Shariah complaint derivatives as a hedging strategy is one of the ways in which IFIs can overcome the foreign exchange rate risk.

Although most Shariah scholars are in agreement with the permissibility of hedging activities, they have different opinions regarding the Shariah concept, structure and process flow that is in use. Thus, it is clear that there is a need for a more unified and standardised guideline/s that take into consideration all restrictions and jurisdictions.

The introduction in 2002 of the first global Islamic Derivatives Master Agreement (IDMA) was the first step in documenting Islamic derivatives transactions in order to develop Islamic hedging products that can eb used to mitigate risks and the protection of wealth (*Hifz al-Maal*). Farrok (2010) claims that there is a need for Islamic currency swaps, forwards and options as well as Islamic profit rate swaps to be standardised.

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There is still very low public awareness of Islamic hedging and consequently, many corporate managers lack understanding of the product and do not know who to refer to for advice. This lack of awareness then translates into lack of support from regulators and policy makers with regards to permitting the enforceability of close-out netting provisions, that will enable IFIs to manage credit risks.

As has already been mentioned, the SCD already provides a hedging strategy. However, further investigation is necessary to explore how SCD's can be combined with hedging and investment activities as a way to generate higher yields and also to mitigate the potential business risks that IFIs may face. This process is time consuming and requires additional processes.

The Islamic Dual Currency Investment is a deposit product that is expected to earn higher returns than regular foreign currency deposits (DCI-i) targets investors who seek potentially higher short-term returns than traditional deposit products. It is also seen as an alternative hedging tool that can be used to manage foreign currency exposure based on a Shariah-compliant approach. The DCI-I, as a structure product, allows for the following risks to be entered into in Shariah compliant investment activities. The Islamic Commodity Hedging (CH-i) is another blended hedging instrument which offers a Shariah-compliant hedging facility for specific asset classes such as a) profit rate and b) foreign exchange. This can also be used as a hedging solution for commodities.

There is a significant demand for local currency financing in Shariah-compliant models. This allows IFIs to avoid the foreign exchange risk and extend the maturity of local currency financing that is available in the Islamic financial market. By matching the currency of assets and liabilities, corporate clients can control the impact of foreign exchange instability and unpredictability on the client's cash flows. There are numerous benefits of Shariah compliant local currency financing (SLCF) such as protection and mitigation from a variety of currency risks, including high volatility of earnings due to currency movements, increasing funding costs over time, increasing the liability if the client's cashflow and financial difficulty and insolvencies. Additionally, SLCFs can make prices more competitive as compared to local funding providers.

3.6 Conclusion

As a result of this chapter, the empirical analysis carried out in this study is theoretically framed. Having reviewed previous studies on Derivatives in Islamic finance, I have observed that the combination between the identity refocus, and identity tuning is expected to create identity consistency with ethical projections.

Concurrently, IFIs also reflect the need for their identity to be consistent with strategic investments. The result of this process is the realignment of strategic investments and ethical projections in the organization. In the Islamic financial industry, ethical identity is expected to be a consistent reference point for IFIs business philosophy, which is the integration between the religious and business principles. IFIs, therefore, have the duty to maintain their own identity as Shariah-compliant financial institutions and to protect the expectations of investors from the business risks within inside and outside the organization.

Chapter 4 Research Methods

4.1 Introduction

This chapter seeks to outline key aspects and to elaborate on the research design, data collection strategy and methods of analysis that were employed in the research area i.e. Malaysia. Next, the themes that emerge from the analysis of data from semi-structured interviews, document reviews, observation and the analyses are presented where the ethical preservation is described to validate the research process. Finally, the process used to arrive at the findings and the conceptualisations will also be presented.

4.2 Research Design and Process

Creswell (2009) suggests that the research design is influenced by both the nature of the research questions and the researcher's philosophical position. As this study aims to explore the rationalisation of the need to develop Shariah-compliant derivatives for the Islamic Financial Institutions (IFIs) context, there is significant pressure that IFIs face during the process of negotiations, translations, and modifications of Shariah compliance principles in engaging with derivative instruments.

During the research process, there are several activities that need to be carefully conducted before embarking on making the conclusion including an overall design, method of data collection and data analysis methods (Yin, 2009; Mills, Eurepos, and Wiebe, 2010). A study is led by one or more research questions that need to be answered. In order to get a scientific answer to the research questions, it requires the appropriate method to be chosen followed by the data collection and analysis. Since each method has its respective strengths and weaknesses, this study uses a combination of semi-structured interviews and document analysis in order to acquire a comprehensive understanding of the topic (Patton, 2002). Details about the general research design and processes of this research are represented in Figure 4.1 below:

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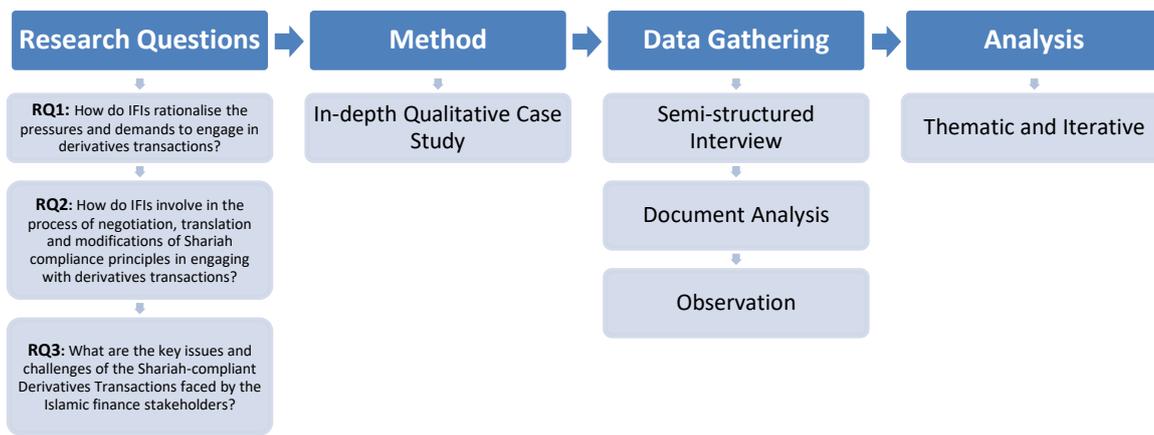


Figure 4.1 General Research Design and Processes

In this study, to achieve the research objectives as stated above in figure 4.1, the researcher focused on the implementations of the Shariah compliant derivative (SCD) transactions in Malaysia as a case study. The key rationale why Malaysia was chosen as a case for this study is because this country not only started the Islamic financial system as early as 1963 with the establishment of the Pilgrims Fund Board in Malaysia (Tabung Haji) but also, Malaysia is known as the first country to introduce the SCD instruments and its transactions (Ayub, 2007). In addition, Malaysia is also recognised as the first global derivatives markets that deals with the shariah principles and has the first Master Agreement namely the Islamic Derivatives Master Agreement (IDMA) that was used as a basis in dealing with the SCD transactions in Islamic finance (kamali, 1999b). Furthermore, Malaysia is also at the forefront in the development of Islamic banking, Islamic capital market and takaful. It has a strong and comprehensive Islamic financial system with a robust business driven regulatory regime and legal framework (IFSB, 2021). Therefore, it has become important for IFIs to understand and learn how this country accommodates various business demands from the clients and investors perspectives and then develops the SCD instruments and its transactions through business activities for cross-border transactions and investments.

After identifying potential market participants from Malaysian Islamic financial institutions, and also from a number of multilateral development bankers that are related to the development of SCD in Malaysia, this study started to engage with the first IFI who introduced the SCD products in the Malaysian market and a further three IFIs as the most attractive of the derivatives players in the market for IFIs environments and business activities.

In order to gain access for the data collection, a letter was sent to various parties concerned namely Central bank of Malaysia or Bank Negara Malaysia as the regulatory body, four IFI market players in Malaysia, and the Islamic Development Bank (IsDB) Group as the patron of the global SCD instruments. As this study engages with some confidential information concerning IFIs, the

researcher honoured the respect from the various bodies that the identities of the individual organization and staff would remain anonymous in the report.

To initiate the data collection process, the respondents comprised of the following groups: 1.) Islamic Finance Practitioners from each IFI (e.g. Islamic treasurers, product development officers, shariah officers, legal officers, and risk officers) who either facilitate or implement the implementation of the SCD transactions; 2.) Central Bank Officers or Standard-setting body staff who initiate, revise, and supervise policies and regulations that affect the stability of Islamic finance industry; 3.) Islamic Development Bank (IsDB) Group Officers (e.g. Islamic treasurers, risk managers, Legal managers, Shariah manager, etc.) who focus and develop the Islamic finance business activities and delivering impact at progression. Following these discussions, a series of initiatives were followed to obtain information from potential participants (within the IFIs participants) and solicit them to gain access to those participants (Given, 2008; O'Dwyer & Boomsma, 2015). The participants in this study had a minimum of 10 years working experience in SCD transactions that reflect their maturity and professionalism in the field.



Figure 4.2 Research Participants of the Study

The selection of these groups was driven by the research questions above and combined with the data from the supplementary documentary research. In order to better understand the subject matter and link documentary resources to the perspectives of the real world, the researcher used qualitative analysis to reach a more comprehensive understanding. More specifically, it is important to obtain evidence from various groups as stated above with different perspectives on opportunities and challenges faced by the IFIs and the unique view on the SCD in managing the risks are discussed.

4.3 Data Collection

The primary data for this study was obtained through interviews with three groups of respondents as represented in the figure 4.2 that are considered to have a significant influence in the shaping of

the Islamic finance industry. The research participants are those regarded as having essential roles in the Islamic finance industry and significant contributions to the development of SCD for risk management and hedging strategy in IFIs (Refer to 4.3.1.1 for the detailed roles of each participant). Respondents are also carefully selected to represent the two locations that are chosen for data collection as stated above.

Table 4.1 Planned Demographic of interviewees

| Group | Position | Total Participant |
|--|---|-------------------|
| Islamic finance practitioners | Islamic Treasurers | 7 |
| | Product Development Officers | 5 |
| | Shariah Officers | 5 |
| | Legal Officers | 4 |
| | Risk Officers | 4 |
| Central Bank Officers | Central Bank Officers | 5 |
| Islamic Development Bank (IsDB) Group Officers | Director of the Treasury Department, Chief Dealer of Treasury Department, Principal Officer in Assets & Liabilities and Alternative Investment, Senior Dealer of Treasury Department, and Shariah Advisor | 5 |
| Grand Total | | 35 |

In order to increase the validity of the data collection, the researcher used the triangulation method namely interviews and observations. Denzin (1978) state that triangulation can be based on four sources: data, theoretical, investigator, and methodological. It is worth noting that triangulation has not been applied for other parts of this study except for data collection.

4.3.1 Semi-Structured Interviews

In this study, the interview is the main data for the analysis. This method is also one of the most widely used methodologies for data collection in qualitative research (Bryman, 2012) as the interview is an information gathering tool where knowledge, understanding, and personal experiences are sought through conversation (Mears, 2009; Mills et al., 2010). Structured, standardised, semi-structured or unstructured interviews can be conducted, as well as oral histories or life histories (Bryman, 2012).

In this study, the researcher used a semi-structured interview format, in which the interview questions were prepared in advance, while the possibility of additional questions in response to the interviewees' answers remained if required (Bryman, 2012). Unlike unstructured interviews, which are often too broader in nature, this study did not use unstructured interviews. Furthermore, structured interviews were also not used because the responses of the interviewees in this format tend to be limited. Due to these limitations, the researcher may not be able to gain a deeper understanding of the perspectives, opinions, attitudes, and values of the interviewees (Rowley, 2012).

The selection of participants for this semi-structured interview from each of the IFIs was based on those officers that most significantly contributed to the creation of SCD instruments as suggested by Marshall (1996). The researcher always asked participants for their consent before recording, noting, and transcribing interviews after briefing them in simple and familiar language about the interview guide, consent form, and protocol (Creswell, 2009). They were also guaranteed anonymity and confidentiality as their participation was voluntary. None of the interviewees refused to be recorded.

Furthermore, each interview began with indirect questions to begin building a relationship and trust with the interviewees (Creswell, 2007; Woodside, 2010). Similarly, Dixon, Ritchie, and Siwale (2006) applied this approach to ensure that research participants were able to express their opinions and thoughts in response to the questions posed. To elicit all necessary information from the respondent, it is essential to make the interview environment friendly so that the respondents do not feel any pressure. For this purpose, the researcher provided adequate time for the respondents to express themselves freely without experiencing unnecessary or unintended pressure from the interview process. Only when the researcher and respondents were engaged with the process, did the researcher start asking the respondents the interview guide questions and adjusted them based on any new issues that emerged (Goddard & Assad, 2006; Patton, 2002). Several initial interviews were conducted as part of a pilot study. The results of the pilot study helped to increase the validity and reliability of this study (Teijlingen & Hundley, 2001). Every interview took place face-to-face to allow for any visual cues to be captured and lasted approximately two hours. During each interview, the researcher summarized the discussions to obtain confirmation from the informants. According to Creswell (2007), when the data collected from the interviews has been saturated, that means a point where no further information could be gleaned that would add to the understanding of the subject matters, then there was no need to add more participants in the data collection. However, as this study used the purposive sampling and the potential respondents were limited in this case study, then the concept of saturation was ~~is~~ not applicable.

4.3.1.1 Group 1: Islamic Finance Practitioners

For group 1 which is related to Islamic finance practitioners from each IFI, the respondents are designed to represent the following five classes in four different IFIs in Malaysia: 1) Islamic Treasury officers; 2) Product Development Officers; 3) Shariah Officers; 4) Legal Officers; 5) Risk Officers. For details on the grouping of respondents for each IFI, refer to Table 4.2 below:

Table 4.2 Number of respondents for each IFI in Malaysia

| Position | IFI 1 | IFI 2 | IFI 3 | IFI 4 | Total |
|------------------------------|----------|----------|----------|----------|-----------|
| Islamic Treasury Officers | 2 | 2 | 2 | 1 | 7 |
| Product Development Officers | 2 | 1 | 1 | 1 | 5 |
| Shariah Officers | 2 | 1 | 1 | 1 | 5 |
| Legal Officers | 1 | 1 | 1 | 1 | 4 |
| Risk Officers | 1 | 1 | 1 | 1 | 4 |
| Grand Total | 8 | 6 | 6 | 5 | 25 |

In IFIs, Islamic treasury officers are responsible for the overall activities to initiate and manage the business opportunities with other IFIs based on the customer driven approach and aims to accommodate their business demands and needs by promoting the SCD with other market players. As for product development officers, they are responsible for developing the new SCD products comply with the business and Sharia law requirements. The Shariah and legal officers are responsible for maintaining the Islamic identity of SCD in line with the Shariah compliance manual and to provide legal advice to the business units respectively. The responsibility to evaluate the business risks is carried out by the risk officers. For more details, each role of the above respondents is explained in Table 4.3 below:

Table 4.3 Role of the Respondent for Group 1

| Position | Roles |
|---------------------------|---|
| Islamic Treasury Officers | Responsible for the IFI's treasury roles means having activities related to liquidity and foreign exchange management. The key importance is to measure and keeps market risk exposure at desirable levels ensuring strategic |

| | |
|------------------------------|---|
| | goals and objectives are achieved. It is important to note that the IFI's exposure are being monitored by the Islamic treasurers which in fact is the asset and liability (ALM) that is specifically related to the currency risk. |
| Product Development Officers | Responsible for supporting the development of new IFI's products and services based on the customer and market driven requirements in conjunction with business units (Islamic treasury department) with the main objective of maximising IFI's revenues. In case of the SCD development and innovation process of this study, the product development officers provide a one-stop solution in designing the product innovation of SCD in conjunction with the business and Sharia law together with compliance requirements and operations. |
| Shariah Officers | Responsible as IFI's in-house Shariah Advisor, acting as first defence of IFI's Shariah Compliance under the supervision and guidance of the Shariah Supervisory Board (SSB) within the IFI to advise on Shariah compliance in Islamic finance business activities. The key importance to note is that the Shariah officers' function as the Secretariat to the SSB to facilitate communication between the IFI's internal stakeholders (Islamic Treasurers and Product development officers) and the SSB. In case of the SCD development and innovation process of this study, the Shariah officers review the new product innovation proposal by IFI's internal stakeholders. In the meantime, this role helps to maintain the IFI's ethical identity claims and control the Shariah compliance of SCD in line with the Shariah Compliance Manual of IFI's internal policy. |
| Legal Officers | Responsible for providing legal advice and support to the business while keeping IFI's strategic and business objectives in mind. It is essential to note the legal officers' functions in drafting, reviewing, and negotiating standards from Islamic finance and banking documentation. In the |

| | |
|---------------|---|
| | case of the SCD development and innovation process of this study, the legal officers engage with the other IFI's internal stakeholders in drafting the ISDA 2002 Master Agreement in conjunction with the Shariah standard in designing the Islamic Derivatives Master Agreement (IDMA) to be implemented for the SCD transactions. |
| Risk Officers | Responsible for protecting the IFI from risks, especially market risk, but also including profit rate risk, commodity risk, currency exchange risk and country risk. The IFI matches the sensitivity of its assets and liabilities (liquidity risk management). The point to note is that the risk officers' functions is to manage, monitor, identify, measure, analyse and mitigate the IFI's risks. In the case of the SCD development and innovation process of this study, the risk officers measured and identify the market risk elements of the SCD to be used and meet the IFI's customer needs, as they have more than ten years of working experience in the IFI industry. |

4.3.1.2 Group 2: Central Bank Officers

For group 2 which is related to the central bank, the respondents are designed to represent the standard-setting body staff who are responsible for regulatory approval (such as registrations, licenses, authorizations, and permits), regulating and overseeing policies and regulations, and supervising the market players related to the IFIs industry.

Table 4.4 Number of Respondents from Central Bank

| Position | Total |
|--------------------------|-------|
| Deputy Director | 1 |
| Dealer of Central Banker | 1 |
| Shariah Specialist | 1 |

| | |
|---|----------|
| Deputy director of Islamic Banking and Takaful department | 1 |
| Grand Total | 4 |

There are five (5) different roles and positions within the central bank. Their roles are explained in Table 4.5 below:

Table 4.5 Role of the Respondents from Group 2

| Position | Roles |
|---|---|
| Deputy Manager | Responsible for the supervisory division in charge of the Islamic finance industry, including SCD transactions. |
| Dealer of Central Bank officer | Responsible for performing routine investment and placement operations within the stipulated investment guidelines in the Islamic treasury activities and SCD transactions and its instruments. |
| Shariah Specialist | Responsible for advising in coordination with the Shariah Advisory Council (SAC) of Central Bank on matters in relation to Islamic banking and takaful businesses or any other Islamic finance area that is supervised and regulated by Central Bank in Islamic finance field including SCD transactions. |
| Deputy director of Islamic Banking and Takaful department | Responsible for leading and guiding related Islamic financial services and detecting emerging risks that may have a negative impact on the financial stability of the country. His key responsibilities include formulating prudential and regulatory policies to ensure the safety and soundness of Islamic Banking. He has worked closely on the number of key projects including corporate governance, capital adequacy and risk management. |
| Market and Liquidity Risk Specialist | Responsible for supervising both conventional and Islamic banks. He is responsible for measuring Liquidity Risk Management of Institutions Offering Islamic Financial Services including SCD transactions. |

4.3.1.3 Group 3: Islamic Development Bank (IsDB) Group Officers

For group 3 which is related to the IsDB, the respondents are designed to represent the Islamic finance business activities and SCD transactions in a wider geographical context with the following five classes in different positions: 1) Director of the Treasury Department; 2) Chief Dealer of Treasury department; 3) Principal Officer in Assets & Liabilities and Alternative Investment; 4) Senior Dealer of Treasury department; 5) Shariah Advisor. For details on the grouping of respondents for IsDB, refer to Table 4.6 below:

Table 4.6 Number of respondents from the IsDB Group officers:

| Position | Total |
|--|----------|
| Director of the Treasury Department | 1 |
| Chief Dealer of Treasury department | 1 |
| Principal Officer in Assets & Liabilities and Alternative Investment | 1 |
| Senior Dealer of Treasury department | 1 |
| Shariah Advisor | 1 |
| Grand Total | 5 |

There are five (5) different roles and positions within the IsDB. Their roles are explained in Table 4.7 below:

Table 4.7 role of respondents from the IsDB Group officers:

| Position | Roles |
|-------------------------------------|--|
| Director of the Treasury Department | Responsible for providing strategic direction, motivational leadership, and operational oversight for the Treasury Department. He leads and supervises the liquidity of the Bank and optimizes returns in accordance with Shariah principles, and as per approved policies and regulations. He also proposes to introduce new hedging products and other Treasury products to manage/mitigate market risk and to |

| | |
|--|--|
| | take benefit from market rate movement which will enable the Bank to become a market maker and major solution provider for all investee Banks. |
| Chief Dealer of Treasury department | Responsible for developing and recommending investment opportunities for the Bank and managing the foreign exchange risk, profit rate risk, refinancing risk, and treasury counterparty credit risk, more specifically related to derivatives transactions in Islamic finance. |
| Principal Officer in Assets & Liabilities and Alternative Investment | Responsible for providing liquidity management tools to fulfil market shortcomings of insufficient liquidity management offerings and dealing with Islamic treasury business activities including SCD transactions. His role is also to identify risks due to exposure to foreign exchange rate fluctuations, profit rates, liquidity and other counterparts and taking diligent steps to reduce or neutralize these risks. Moreover, he needs to ensure protection of capital and maximizing returns from all treasury activities within specified Asset-Liability Committee (ALCO) limits, risk parameters and local regulation in maximizing profitability of the Bank. |
| Senior Dealer | Responsible for hedging strategy and managing the market risks including foreign exchange risk, profit rate risk, and Treasury counterparty credit risk. |
| Shariah Advisor | Responsible for reviewing wider Shariah matters related to structuring of Islamic financial products, projects, and transactions in conjunction with Sharia Board and the Director of Legal department of the Bank. He is heavily involved in SCD transactions and its instruments in the Middle East including Bahrain and Saudi Arabia. |

4.3.2 Observations

In addition to the data analysis of the documents, observation is also a major source of data in qualitative research (Flick, 2018). However, what differentiates observation from interview and data analysis is that observation offers ‘firsthand’ naturally occurring data in the original situations and conditions rather than secondhand narratives found in interviews (Wellington, 2015). Silverman (2011) states that in order to be able to identify the word ‘firsthand’, the researcher tries to explore the problems by participating and engaging with the current trend of daily activities. But, Merriam and Tisdell (2016) argue that just as ordinary conversation is different from interviews, so observations of our daily activities are different from research observations. In their opinion, if our observations of the daily activities are frequently done unintentionally and randomly, research observations are contradictory because they answer specific research questions that makes them difficult to be believed.

Gold (1958) classifies four general types of researcher roles in observation. First, the complete participant: a group member who hides his/her role as observer (Cohen et al., 2018). He may have internal knowledge, but his research activities are disclosed, considered to be fraudulent and will be seen as spying and traitorous (Merriam & Tisdell, 2016). Second, Participant as observer: a member of a group who informs his/her fellow members of the group of his/her role as observer (Cohen et al., 2018). Here, he regularly maintains the role of an “active participant” (Merriam and Tisdell, 2016). Third, the role of the observer as a participant: the role of observer is not the role of the group member, but the role of the observer is clear to the group (Cohen et al., 2018). He can also participate to a certain extent in the group’s activities (Cohen et al., 2018). However, the observed members limit their access to information (Merriam and Tisdell, 2016). Fourth, an independent observer from the group or outside the group, whose presence is visible to the group but is ignored. For example, it applies to public places such as airports and bus stations (Merriam & Tisdell, 2016).

In relation to this study, an observation is chosen as research tool because it aims to verify the interview data. For example, the researcher of this study desires to explore whether the business demands are in line with the ethical identity construction practices as perceived by interview participants and to further examine if they do in fact exist in their market practices. The researcher also makes observations to gather meaningful and contextual information to help answer the research questions. IFIs management provided the researcher with access to see first-hand how SCD transactions are carried out in dealing room operations and deal processes at one of the key pioneers and market players of IFIs in Malaysia. In this case, they use the Islamic Derivatives Master

Agreement (IDMA) as an important document in conducting these SCD transactions with the counterparty. During these observations, the researcher documented and reflected on points relating to business demands and stakeholder views on maintaining their ethical identity principles in dealing with the SCD verbally and non-verbally which are indicated in their interactions and daily routines (Tedlock, 2005). Furthermore, from fieldwork in the IsDB Group Jeddah, Saudi Arabia, the researcher obtained significant additional information about the SCD transactions within IFIs globally. For this region, the Tahawwut Master Agreement (TMA) is used as a primary document in dealing with these SCD transactions. The researcher also accessed the important documents (including minute of meeting, internal documents, new product development proposal, and other confidential documents) section as additional information on the observations. With the aim of maintaining the ethical aspects of this research, the researcher takes an open approach in which everyone in the organization is considered as contributing equally and significantly to this research (Brannan & Oultram, 2012).

4.3.3 Review of Documents

To support the analysis of the primary data, the researcher uses the document analysis method. According to Bryman (2012), most research consists of four types of documents: personal documents, official documents, mass media outputs, and virtual documents. Only one type of document has been incorporated into this study namely official documents (both public and private) because they are relevant. The documents were extremely useful in clarifying the process of negotiation and rationalisation in the context of SCD in IFIs and also in developing questions for the interview. Therefore, this research explored both public and private documents in the IFIs related to the applied SCD transactions and its instruments within internal stakeholders in the IFIs and external approval of regulator in implementing the SCD product as a financial innovation instrument. The documents used are represented in Table 4.8 below.

Table 4.8 Documents Reviewed

| Islamic Finance Stakeholder/ Group | Name of Documents | Type of Documents |
|------------------------------------|--|-------------------|
| Islamic Financial Institutions | Shariah Compliance Policy and General Procedures Manual | private |
| | Shariah Pronouncement related to SCD transactions | private |
| | Annual Reports | public |
| | Islamic Derivatives Master Agreement (2002 Master Agreement) | private |

| | | |
|---|---|---------|
| | Islamic Derivatives Master Agreement (IDMA) Schedule to the 2002 Master Agreement | private |
| | Master Agency Agreement | private |
| Central Bank | Shariah Resolution and Standard (Fatawa) | public |
| | Proposal of SCD Instruments to regulator | private |
| | Resolutions of Shariah Advisory Council of Bank Negara Malaysia | public |
| | <i>Bai` al-Sarf</i> (Shariah Requirements and Optional Practices of Currency Exchange in Islamic Bank in Malaysia) issued on 2018 | public |
| | ISDA/ IIFM Tahawwut Master Agreement (TMA) | private |
| | Annual Reports | public |
| | <i>Wa'ad</i> (Concept Paper) | public |
| | Financial Services Act 2013 | public |
| | Guidelines on Introduction of New Products | public |
| | Islamic Financial Services (Financial Ombudsman Scheme) Regulations 2015 | public |
| | Capital Adequacy Framework (Basel II – Risk-Weighted Assets) | public |
| | Resolutions and Recommendations of The Counsel of the Islamic Fiqh Academy 1985-2000 | public |
| | AAOIFI shariah standards | public |
| | IFSB-12: Guidance Principles on Liquidity Risk Management for Institutions Offering Islamic Financial Services | public |
| IFSB Working Paper Series: Regulatory and Supervisory Issues in Shariah Compliant Hedging Instruments | public | |
| Islamic Development Bank (IsDB) Group | Financial Institution Risk Assessment Guidelines | private |
| | Liquidity Policy | private |
| | Asset and Liability Management Policy | private |
| | Treasury Risk Management Policy | private |

According to table 4.8, some private documents are contained in the internal procedures, policies, guidelines, proposal of Islamic swap transactions, meeting minutes, Shariah Pronouncement from the head of the Shariah department, and Central Bank approval related to the SCD instruments. Therefore, review of relevant documents is one of the most essential aspects of the investigation and contributes to the analysis related to the study. However, in order to preserve the confidentiality of the research participants and its stakeholders, the researcher could only read and review the documents. In this situation, the researcher was not able to duplicate or copy documents for research documents. As a result, it made it difficult to read and summarise these documents as significant data for analysis. Simultaneously, it gives the researcher the opportunity to understand the internal processes of negotiations, translations, and modifications of SCD instruments applied in IFIs through documented facts.

4.4 Data Analysis

Data analysis is carried out using thematic analysis. The purpose of the approach is to identify, analyse, and report patterns (themes) within data (Braun & Clarke, 2006). An analysis of qualitative data is commonly conducted using a thematic analysis (Bryman, 2012). Despite the fact that it is not considered as a specific method, it has been integrated with a number of other qualitative data analysis methods, including critical discourse analysis, narrative analysis, and grounded theory (Braun & Clarke, 2006; Bryman, 2012). During the thematic analysis, the researcher identified important patterns, explored connections between themes, and conducted analysis and data management in a more efficient manner. In contrast, the software is unable to automate the process of data analysis, as may be the case with quantitative data analysis software (Bazeley & Jackson, 2013; O'Dwyer, 2004), nor can it generate theories based on the data (Dixon et al., 2006b). In this respect, the researcher used Microsoft Word and Excel additionally to organise and sort the themes.

All the interview recordings were transcribed to assist in analysis. To become more familiar with the data and to maintain confidentiality, all the transcriptions were done by the researcher and this activity allowed the researcher to become familiar with the data (O'Dwyer, 2004). According to Marshall & Rossman (2010), the researcher should be the central role in the analysis process as coding and analysis are 'not just technical tasks' and there is no mechanism that can replace the researcher's mind and creativity. This strategy served to limit the possibility that anyone other than the researcher would not be fully versed in the research topic, relevant terminology, and the vernacular used by interviewees (Marshall, 1996; McLellan, Macqueen, & Neidig, 2003).

After analysing the interviews transcripts, the researcher decided to combine them with notes derived from documentary reviews. To distil the concepts that emerged from the data, the researcher conducted source coding. For example, the codes (subthemes) used are 'Islamic derivatives', 'rationalisation processes of SCD on IFIs', 'negotiation processes of SCD on IFIs', and 'modification processes of SCD on IFIs'. Subsequently, the researcher grouped these codes into several categories or order. For example, a 'hedging strategy' was chosen as the first-order code. After analysing the codes and themes, the researcher categorized them based on a set of conceptual frameworks to assist in answering the research questions. An example of the conceptual framework of thematic analysis for answering the first research question is presented in Table 4.9.

Table 4.9 Example of Conceptual Framework of thematic Analysis

| RQ1: How do IFIs rationalise the pressures and demands to engage in derivatives transactions? | | |
|--|--|---|
| <p><i>First order:</i></p> <ul style="list-style-type: none"> • Pressures and demands rationalisation | <p><i>Second order:</i></p> <ul style="list-style-type: none"> • Causes and Impact of Financial risks | <p><i>Third order:</i></p> <ul style="list-style-type: none"> • Liquidity risk • Market risk • Credit risk • Operational risk |

A deductive, as well as an inductive approach was used to identify the codes (Lapadat, 2010). After discussing with the relevant supervisors, the researcher used an inductive approach to observe emerging themes and a deductive approach to determine the theoretical constructs intended for further investigation. By involving employees from several departments of each IFI in setting themes, the analysis may be enhanced in terms of internal validity and reliability (Fereday & Muir-Cochrane, 2006).

After establishing the codes and themes, thematic analysis was performed iteratively (Dixon et al., 2006b; Miles & Huberman, 1994). By remaining focused on finding answers to the research questions and by examining secondary issues that emerged from the data, the researcher was able to continuously move between theoretical conceptualization, data collection, analysis, and interpretation (Bryman, 2012).

In the process of analysing the data that has been obtained during this study, the researcher considered and tool into account the empirical data from the field, and carefully matched it with the organisational identity theory as the main tool in explaining the problems and dynamics that

have occurred so far in the field. In this case, the researcher will be very involved in the “kidnapping process” (Bryman, 2012), which is closely related to the theory and research being carried out, namely related to the impact of SCD in IFIs. The results of the research are one of the contributions of the researcher in this study as the basis for the process of 'wrapping' this study by presenting the conceptualization of data into the storyline of this theorized as an attempt to demonstrate the theoretical significance of events in the field supported by the definition of the process of field events (Ahrens & Chapman, 2006; Ragin, 1992).

4.5 The Validity and Reliability of the Study

Validity and reliability are critical issues for every researcher conducting an interpretive study, including those working in the accounting and finance field, as communicating the manner in which these criteria are handled within a study can enable criticism to be avoided and provide assurances of credibility to the audience (McKinnon, 1988). In order to address the reliability standard of this study, according to McKinnon (1988), the study should be supported by data on which the researcher can rely. In this study a variety of data collection methods were used to meet the reliability criterion. Furthermore, for research to meet the validity requirement, it must be 'authentic, plausible, and convincing' (Parker, 2012).

To ensure the authenticity of this study, the researcher spent about eight months studying the documents from the participating IFIs and communicating with various Islamic finance practitioners in Malaysia, specifically the Treasurer during the study period, using email and messaging services, to confirm or request additional information. Furthermore, by including participants from various departments at the IFIs, it was hoped that the analysis of this study would be more authentic (Fereday & Muir-Cochrane, 2006).

Moreover, the credibility requirement of the research can be met by presenting credible theoretical insights that are utilized to explain the subject of inquiry to convey an insightful interpretation to the audience (Parker, 2012). It was necessary for the researcher to constantly go backward to make sense of the results. In this study, the researcher was required to validate the summary of transcription and conclusion back to the respondents or other concerned informants for their confirmation (Eisenhardt, 1989).

4.6 Ethical Considerations

A key ethical consideration for this research is to ensure the protection of the study on Shariah derivatives transactions, as well as the research participants and the researcher (Bryman, 2012;

Chapter 4

deRoche & deRoche, 2010). To protect the privacy of research participants, confidentiality and anonymity have been maintained. Furthermore, all data obtained from the interviews was recorded to maintain transparency throughout the research process. Data was securely stored on a password-protected laptop computer and in the cloud.

Furthermore, to gain access to documents related to this study, the researcher arranged an initial meeting to explain the research objectives, as well as the possible contribution of my research to the practical implications for IFIs. Both the researcher and the interviewees signed a legal agreement for the purpose of data protection and confidentiality preservation. Furthermore, the selection of participants to be interviewed was based on a mutual agreement between the researcher and the IFIs. Interview arrangements were made through the Human Resources Development (HRD) department which is responsible for scheduling according to the availability of each interviewee. Although arrangements are made through HRD department, the voluntary nature of participation was also included.

In this context, the researcher ensured that each participant was informed regarding the summarized information about the study, the confidentiality of the data, their rights, the intention of the output and the contact details at the beginning of the interview session. The same applies to verbal guarantees, especially in this regard with regards to their rights and voluntary consent. In this case, participants were informed that they could withdraw their consent at any time during the interview and even after the interview was completed (unless data from the research had been published). However, in this case, it would be communicated and informed at the beginning of each interview between the researcher and the interviewee. There were some interviewees who did not fill out the respondent's consent form and a small proportion did not wish to be recorded verbally and this was also based on the initial legal agreement signed at the beginning of the field research.

With regards to IFIs documents relating to SCD transactions and its instruments, both publicly available and non-publicly available data were collected. In this case, publicly available data and documents included data from websites of the Central Bank as regulators, IFIs, annual reports and governance, or documents that are published publicly and can be accessed by anyone; No approval is required for its use. However, regarding documents that are not publicly available and can only be used internally by IFIs, permission from related parties was obtained before being used in research.

Finally, all the data collected by the researcher was stored using a coded system, to ensure no misuse of participant information and records of interviews that had been conducted with the participants, and some important records related to the observations that the researcher had made

in terms of interacting directly with the participants, market players and decision makers in IFI. In addition, detailed information related to the identity of the interview participants, namely their real identity was hidden by using the code or pseudonym provided and was stored electronically in a separate password protected file that could only be accessed by the researcher. Moreover, when referring to a particular participant and citing them, a pseudonym with a specific code has been used. This is to ensure a level of confidentiality and/or anonymity for all interview participants and anyone involved in this research. If consent is withdrawn, this data will be destroyed or deleted by the researcher as a step to ensure that it will not be used and abused by irresponsible people. This is also communicated to all participants prior to the implementation of the data collection work.

4.7 Conclusion

Throughout this chapter, the design and process of this research has been discussed, as well as the methods employed to collect data, analyse and observe the results in order to answer the research questions. This chapter has also discussed the ethical issues and attempts to maintain the validity of the analysis. These elements have been examined in this chapter and the findings demonstrate that the research has been conducted in a manner conducive to a reliable and novel outcome.

Chapter 5 Rationalisation of Demand for Derivative Products and Reassessment of IFIs' Ethical Identity

5.1 Introduction

This chapter aims to explore the rationalisation of pressures and demands that Islamic Financial Institutions (IFIs) face in engaging in derivatives transactions. This chapter reveals the pressures IFIs face to mitigate the increasing financial risks and the complexity in operating within the global financial industry by engaging in derivative instruments.

On the other hand, IFIs are aware of the clashes between the nature of derivatives transactions with many aspects of Islamic financial principles. In the process, IFIs have to engage in rationalisation of such demand for derivatives transactions. Simultaneously they need to justify the business needs of clients, to mitigate and control financial risks whilst at the same time ensuring that they retain their identity as Shariah-compliant institutions. These concepts will be further discussed in this chapter.

5.2 Potential Causes and Impacts of the Financial Risks in IFIs

In business terms, risk is frequently defined as the likelihood that the outcomes of the authentic uncertainty return will differ from those of the expected return (Howells and Bain, 1999:30). There are at least three classifications of risks in the commercial business activities, as shown in figure 5.1 below: (1) financial risk, (2) business risk, and (3) operational risk.

"There are number of risks that the Islamic Financial Institutions (IFIs)/ Institutions faces such credit risk, profit rate risk, currency risk and financial risk. In the treasury department, we are focusing more on the profit rate risk/ interest rate risk, liquidity risk, and the currency risk. These are the two main risks that we tried to manage within the context of derivatives." (F1)

In IFIs, financial risk concerns arise from the business activities of organisation. It is clearly stated above that the treasury department as a key person in managing those risks. However, operational and business risks involve the IFI's internal interactions. Accordingly, market risk can be considered a financial risk along with liquidity risk and credit risk (Mirakhor and Iqbal, 2007).

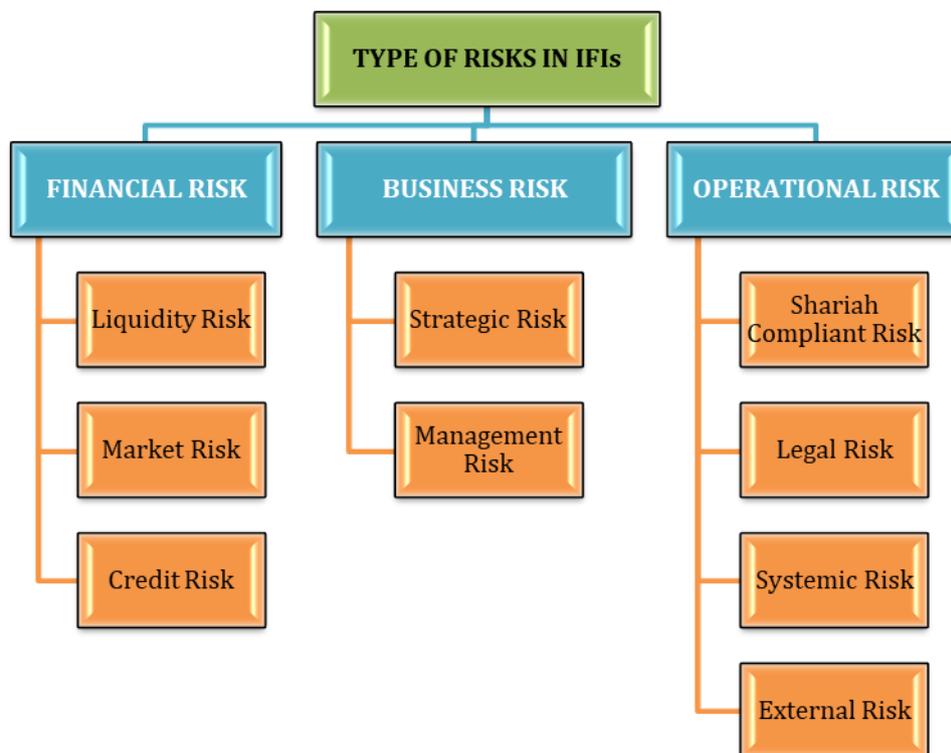


Figure 5.1 Type of Risks in Islamic Financial Institutions

Source: Modified from Mirakhor and Iqbal (2007)

Furthermore, in order to identify and measure risks in IFIs, a fundamental and interactive approach must be used since the causes and impacts of one type of risk cannot be separated from those of other types. As stated above in figure 5.1, every risk has essential connections and impacts each other.

“...Islamic banks could have a higher exposure to credit risk, liquidity risk, profit-rate risk and currency risks, among others, because they are unable to as effectively hedge this exposure...”
(Bashar Al Nattoor, the global head of Islamic finance at Fitch Ratings, IFN Volume 17 Issue 27)

“There are also financial risks in IFIs, in relation to liquidity risks, market risks, operational risks. It is transferred, because financial risks keep the fund changing. We deal with it every time so we mitigate it by imposing limit assignment so our risks will ban it. How we mitigate the compliance risks is we conduct yearly compliance updates, so even if we deal with a new counterpart, we will have to conduct the same compliance process again just to be sure we don’t break any sanctions and things like that.” (F4)

A number of factors can affect liquidity risk, including market risk and credit risk, and vice versa. Similar to business risk and operational risk, liquidity risk can also be due to these factors. In the internal operations of IFIs, liquidity risk can arise as a result of an assets-to-liabilities mismatch or a maturity mismatch (Ahmed and Khan, 2007). In this regard, IFIs should monitor and control the dynamics affecting business risk, operational risk, and financial risk, which can lead to an asset-liability mismatch (Sobol, 2013).

“As Islamic banks evolve their risk management practices, the effectiveness of their derivatives portfolio needs to be regularly estimated, including its impact on their banks’ capital/solvency positions and future profits” (Bashar Al Natoon, the global head of Islamic finance at Fitch Ratings, IFN Volume 17 Issue 27)

Specifically, the above statement has clearly stated that as part of its evaluation of viability ratings processes, it has identified the exposure of IFIs to profit-rate risk, as well as the mitigations used to neutralize or hedge and also manage those risks, such as the usage of derivatives instruments. In this context, suggesting Shariah compliant derivatives products to their customers would enable IFIs’ to generate maximum profits.

5.2.1 Liquidity Risk

“The biggest risks are liquidity risk, interest rate risk, forex risk. These are the big risks that we are trying to manage by using hedging tools such as derivatives. For FI for example, we have this mismatch in terms of deposits and financing. In Malaysia, if you want to basically extend a house financing, it can go up to thirty-five years. While if you deposit, it is basically somehow shorter term, so it is really difficult to match the funding. Because of that, there are these risks in terms of how the bank is managing its gapping.” (F6)

Liquidity risks occur where the bank may be unable to meet its obligations in a timely fashion. This may occur, for instance, when depositors decide to withdraw their deposits (Kashyap *et al.*, 2002).

“the gap between liquidity position and long-term financing to meet your short-term funding, normally we call it liquidity or gap risks. Then normally the strategy adopted by the bank would be by using various instruments. For example, to meet certain realty requirements, banks do procure liquid assets for example sukuk and also with the latest development, the derivative or liquidity tools to be taken. For example, the repo, simply to ensure that the bank’s liquidity position is intact to meet the various capital requirements that are set by the regulator.” (F7)

There is an inverse relationship between liquidity and liquidity risk, given that the higher the liquidity risk, the higher the probability of becoming illiquid, and therefore, the lower the liquidity (Sobol, 2013).

“...I think they are happy to support as long as it is Shariah compliant as well. If we need to use derivatives and the markets need funding of local currency, our shareholders are happy to support that. If we start using derivatives for speculation, they will not be happy about that.” (F1)

Controlling liquidity risk, however, is more challenging in the current financial market because significant financial innovations and global market developments have transformed the nature of liquidity risk (BIS, 2009). There is currently less reliance on bank deposits, and more reliance on capital and global financial markets (Diamond and Dybvig, 1983; Waldo, 1985).

“...we do natural hedge which is the most ideal hedging, or we do the synthetic hedge, or practicing other hedging solution from elder counterpart. So, At the moment, our main risk is that the price risk which is arising due to the mismatch of asset and liability in our balance sheet. (F2)

Moreover, it is clearly mentioned that it is crucial to point out that excessive liquidity is not profitable for the financial institutions (Eljelly, 2004; and Olagunju et. al., 2012). Due to the cost of liquidity, IFIs should find a balance between the safety of maintaining enough liquid assets and their expense (Bordeleau and Graham, 2010).

5.2.2 Market Risk

The concept of market risk refers to the risk of loss arising from fluctuations in income or changes in market value as a result of changes in the underlying market factors, such as profit rates, foreign exchange rates and equity prices. The market risk can be divided into several categories, such as interest rate risk, commodity risk, foreign exchange risk, and equity risk (Haron and Hock, 2007). IFIs are exposed to market risks due to the variety of instruments they use to gain a short-term profit from price fluctuations and interest rates. On the other hand, IFIs are less exposed to such risks due to Shariah restrictions as compared to CFIs. The head of the Islamic treasury clearly mentions the main objective of the treasury department in IFIs as shown below:

"our main objective or the main risk is to maintain the market risk which is the correction risk, profit dead risk or interest dead risk. this helps us understand the concept of the risk we are running when we create asset and liability, and another risk which we are running is common to everybody, a liquidity risk. So, the main two risks which we are running are market risk, divided by two; correction risk, and another is profit dead risk, and another type of risk is liquidity risk, which can be the financing risk and can be a risk rising due to the fault of our borrowers who could not repay the money, and also we cannot repay the money from whom we borrowed to create the asset in the first place. Summary, the major risk we are running is market risk, divided by profit dead risk and the second one is liquidity risk." (F2)

Market risk as stated above, has to do with profit risk. The profit risk arises because IFIs assets (financing transactions and *sukuk*) usually have a significantly longer maturity than IFIs liabilities (deposits).

"Derivative is very much talking about the liquidity risk. Basically, they are corporate client either exporter or importer. They manage the foreign currency risk and facilitate those risk. Most likely on forward and option." (E1)

In this context, if profit rates increase, the value of the longer-term assets will tend to fall more than the value of the shorter-term liabilities, reducing the IFI's equity. In addition, if the profit rates increase, the IFIs will be forced to pay higher profit rates on its deposits well before its longer-term loans mature and it is able to replace those financing facilities with the financing that earn higher profit rates. Additionally, equity risk refers to the potential loss a company may incur as a result of adverse changes in its share price. A share, also known as an equity, represents ownership of a financial company, in this instance, an IFI.

“Another example of a bank is we have numerous dealings in foreign currency and we need to have some sort of a tool to manage this because you have exposure other than your own currency, you are exposed to the foreign exchange rate.” (F6)

As quoted by interviewee above, Foreign exchange risk refers to the possibility that the value of the bank's assets or liabilities may change as a result of changes in currency exchange rates. In some cases, IFIs buy and sell foreign exchange on behalf of their clients (who need foreign currency exchange in order to carry out international transactions or who receive foreign currency and want it converted into their own currency) or for its own accounts.

5.2.3 Credit Risk

“I believe you don't want any risks so basically your funding and your financing is supposed to do a match check between five years financing and five years deposit. For certain products, it is actually that they have longer than what is quoted in the market. Because of that, you need to engage into some derivatives to kind of extend your portfolio in terms of when you can best match the volatility into it.” (F5)

From the IFIs perspective, credit risk refers to the potential loss of a financial institution, when it finances a project on behalf of its clients. In this case, the clients do not fulfil their obligations (on time or not at all), namely principal plus profits based on the Shariah contract of *Murabahah* (cost plus profit). Cash flow and liquidity of the bank are adversely affected by this risk. Moreover, the credit risk is linked to counterparty risk.

“For example, counterparty risks, like credit default, we have customers that basically we don't like the exposure because of the industry and everything so you try to manage the portfolio risk and you may try to swap the risks to some other counterparties so basically you are able to manage the overall risks in the portfolio. These are some major items that banks normally use to manage the risks. Derivative is the simplest way to do this. Other than that, you have to dispose of the assets, such as engaging in the foreign currency, such action, or basically doing a matching. It is very difficult to do that in real life. We need a useful tool to manage those risks.” (F6)

5.2.4 Operational Risk

“Then there is the third risk, it is operational risk. It regards the process flow and since IFIs operates in accordance with Shariah rules and principles, it makes it more important that the flow is according to what Shariah wants. The mitigation for operational risks is audit check and that audit check can come from both the normal audit and the Shariah audit.” (F4)

As stated above, operational risk is closely related to the potential loss to an organization. This means that IFIs are prone to the results of inadequate or failed internal processes, human errors or faults, or inefficient systems caused by external events. For example, if the operational risk is related to a failure to conduct due diligence when issuing financing facilities to clients. Despite the difficulty of measuring operational risk accurately, regulatory requirements compel banks to take measures to deal with this type of risk.

5.3 The Role of Derivatives Products in Mitigating the Market Risk in IFIs

The introduction of the Shariah compliant derivatives products are seen as having a role to play in hedging techniques and investment strategies approach. The hedging technique is part of the art in managing and dealing with all type of risks in the financial market. It is a process of undertaking the dealings and measures for protection from harms (*khatar*).

“The hedging can be a combination of profit rate swap, options, may be a combination of a both. Sometimes, we try to accommodate the client needs based on the basic need like the basic IPRS which is to hedge their loan repayment. However, sometimes, we have a situation whereby they want to hedge the commodity price, but they do not want to hedge full or just only half of their commodity. We have some option where you can do the commodity swap for half, and then on top we can use the Islamic options. Therefore, a lot of our Islamic products are customisable” (A3)

“We consider an increased usage of derivatives for risk-management purposes as positive for Islamic financial institutions, Sukuk investors, issuers and Shariah compliant non-financial corporates. Derivatives play a vital role in hedging and mitigating risks that come from volatilities in profit rates, exchange rates and commodity prices. However, the Shariah compliance of derivatives is a major limitation. For example, many Shariah governing bodies and scholars are of the view that conventional futures and forward contracts are not Shariah compliant. This leaves the Halal industry with far fewer hedging instruments compared with their conventional peers” (Bashar Al Natoon, the global head of Islamic finance at Fitch Ratings, IFN Volume 17 Issue 27)

In IFIs, the role of derivatives products is functionally to distribute risk among market participants in accordance with their ability to assume them (Al Suwailem, 2006). However, from the CFIs perspective, the derivatives are the main instruments used in two functions to hedge various types of risks, especially market risk or they can be used for speculation activities. One of our interviewees expressed this sentiment as follows:

“But I think we crossed into the speculation, when we start doing things like leverage where we are actually double exposure on nominal amount. Concisely, there is not speculating. When you cannot see, it is already speculating activities.” (A3)

Simultaneously, derivatives products are financial instruments to manage and protect the position of IFIs. As a result of this approach, the business activities of IFIs will be easier to control and more profitable for both parties. This view is corroborated by one of the interviewees who states that:

“I think the first thing would be to really put a case whereby in making a financial transaction or investment, there will always be risk. And this kind of risk, if they are not properly controlled or addressed, then it will really impact the objective of the transaction.” (F8)

However, derivatives products can also be used as “financial weapons of mass destruction”, which carry dangers now latent, but which may ultimately become deadly in the future (Buffet, 2002). Therefore, derivatives products are likely to increase in variety and number until some event brings to light their toxicity. Therefore, some of the interviewees mentioned the use of natural hedging as an alternative in order not to deal with derivatives instruments. This is shown below:

“Natural hedging in Indonesia would be IDR 30 million for five years and then we can see that the Indonesian government needs to pay us USD 30 million as a capital contribution. You don’t have to convert that. You simply pay us in the local currency. Then my equity is my liability. Giving me my equity, which is my liability in their own currency, and I am using that, automatically we can take on other projects in Indonesia for five years with the same amount. This is natural hedging where we don’t need any derivatives involved here.” (F2)

5.3.1 The Demand for Liquidity Management Tools

Liquidity management tools are essential for financial institutions. They are the tools used to manage the business portfolios which are a combination of assets and liabilities which ensure that all cash flows are met in day-to-day activities. In parallel, Largan & Colley (2000) mention that liquidity management describes the ability of financial institutions to match the maturity of assets and liabilities on a daily basis with short-term pressures that may arise in the process of ensuring that the assets are fully funded. From the market players perspective, liquidity management tools have been one of the critical concerns for both CFIs and IFIs seeking in controlling liquidity shortage, the killer of banks, on the one hand, and investing it for benefiting even from a single penny overnight, on the other hand (Beck *et al.*, 2013).

“In Malaysia, the central bank of Malaysia (BNM) is the lender/ borrower of the last resort, and the pool of money is already divided into two Islamic and conventional money market. So, the liquidity situation in both instances are not always similar but the external condition is the same. Most of the time, the fund needs are almost the same between Islamic and conventional bank.” (A3)

For IFIs specifically, there is a significant problem with liquidity mismanagement (Samad and Hassan, 1999). The liquidity mismanagement is reflected predominantly on the IFI’s deposits that are used for short terms of maximum one-year tenor. Even though some IFIs offer deposit products for longer terms of five-year periods, but very few IFI’s customers are investing in these deposit products. Therefore, based the researcher’s analysis, it is clearly stated that the entire deposit portfolio consists of mainly short-term deposits. This is due to the fact that IFIs are targeting short-term deposit customers over long-term depositors.

However, the IFI’s liability portfolio of balance sheets should include both short and long-term deposits in order to avoid asset liability mismatch. On the other hand, the IFI’s asset-based portfolio are typically used for long-term period. For instance, Murabahah Home financing, commercial corporate financing, etc. which offer products for long-term periods of between 20-30 years.

“I think the challenges would be for the Shariah scholar to understand why we need this derivative instrument. Because the thinking was like “Derivative is bad. Not only bad to the bank, it is also bad for the economy of the country” Because of the speculation. Because of the use, it was a tool used for speculative transactions. Even the main instrument for the hedging fund, for example, the hedge fund, even I think until now, hedge fund, the majority of Shariah scholars still cannot accept it because of the nature of the fund itself. But I think later on, when the Shariah scholars can appreciate the need of derivative instruments, and the Islamic banks also understand the concerns

of the Shariah scholars in terms of the abuse of this instrument that can happen if we allow this type of instrument to be offered by Islamic banks or to be entered by the Islamic banks, then when the understanding between the Shariah scholars and the Islamic banks converge then I think the better execution or understanding from both side really help to develop this kind of product to be acceptable.” (F8)

In managing the liquidity of IFIs, the vast majority of market participants and Shariah scholars tolerate and agree to use the commodity Murabahah contract based on the concept of *Tawarruq* in the Islamic liquidity management activities. This commodity Murabahah play an essential role in the Islamic finance industry as an innovation that in actuality is used to develop personal financing products, Islamic derivative and Shariah compliant structured products. However, some conservative Shariah Scholars, appear to have a separate understanding and have concluded with the consensus that the concept of *Tawarruq* in managing the liquidity where possible, should be considered a product of last resort, and that its use is acceptable.

Therefore, despite the debate about the commodity Murabahah as a Shariah compliant structure in fulfilling a vital function in the Islamic interbank money market instruments, it is widely implemented around the globe within the IFIs ecosystem. In fact, it has been explained by Raja Teh as follows:

“The one Islamic money market tool that can help provide liquidity in the Islamic banking system. There is no other instrument that is as widely used as commodity Murabahah, especially in the short-term money markets. Sukuk are generally of medium to long tenure whilst other contracts, for example Wakalah, may not appeal to some risk managers.” (Raja Teh Maimunah, the former head of global Islamic markets at Bursa Malaysia, Islamic Finance News, 03/08/2011, Volume 8, Issue 30)

As the statement above shows, in Malaysia, the liquidity management tools have decided to apply the concept of *Tawarruq* based on the commodity Murabahah contract in dealing with complicated transactions. However, some Islamic finance scholars are concerned with the execution of transactions rather than the practice itself. The market players have struggled to identify the proper Shariah compliant structure in creating the platform that can be commonly used by using the commodity Murabahah contract based on the underlying assets facilitated within the market participants.

“The industry had suffered some reputational issues regarding rogue trades whereby commodities purchased for this purpose were either encumbered, i.e. they cannot be freely dealt with; the same commodities were being sold to several parties simultaneously; or, in some cases, simply didn’t exist.” (Raja Teh Maimunah, the former head of global Islamic markets at Bursa Malaysia, Islamic Finance News, 03/08/2011, Volume 8, Issue 30)

Under the above circumstances, there has been a financial industry-wide effort in Malaysia to regulate and standardize the market based on the market demand. This was followed by the launch of the Bursa Suq Al-Sila in August 2009.

“Instead of disallowing Tawarruq we set some rules. No one has ever regulated commodity Murabahah – what constitutes a proper commodity Murabahah trade, what makes it invalid – this is exactly the rationale of setting up Bursa Suq Al-Sila.” (Raja Teh Maimunah, the former head of global Islamic markets at Bursa Malaysia, Islamic Finance News, 03/08/2011, Volume 8, Issue 30)

As the quote above shows, the platform is an extension of the Commodity Murabahah House initiated by the Malaysian International Islamic Financial Centre (MIFC) under the umbrella of Central Bank of Malaysia. This Commodity Murabahah House was first introduced as an international commodity platform which facilitates commodity trading activities by complying with the Shariah principles to be used for the deposits, financing, and investment transactions.

Therefore, in March 2007, the Central Bank of Malaysia started and approved the Commodity Murabahah Program (CMP) in the country with the initiative as part of an innovative approach for liquidity management tools to support the IFIs and its stakeholders. This was achieved by using the CMP as a cash deposit mode that can accommodate the IFIs in managing their liquidity. Then, in 2009, Malaysia introduced two standardized interbank master agreements for Islamic deposit-taking and placement transactions to promote the commitment of commodity Murabahah as an interbank money market tool as well as launching the Bursa Suq Al-Sila’ (BSAS) in the same year. The BSAS is a fully automated commodity trading platform dedicated to facilitating the supply, purchase and sale of assets by IFIs. The IFIs can then buy these assets and conduct Murabahah transactions with another counterparty to fulfil their Islamic liquidity management and financing requirements internally.

From a counterparty perspective, as long as they are aware of the need for this type of instrument, then they have the insurance that the product will not be abused. Consequently, they will be more likely to subscribe to it. Additionally, with the support or the confirmation from the Shariah committee, shows that this product has been approved according to Shariah principles for a certain objective and that it is acceptable to the Shariah.

“I think the important part is to ensure to our counterparty that this instrument is really a genuine transaction where it comes to the objective. The risk is really a risk whether to the bank or the investment itself. It is a genuine risk. It’s not something that is created. But the important part is to convince our counterparty that this risk really needs to be mitigated or otherwise it will affect the result or the objective of the investment itself. That is a very important part. Another part is to ensure that they really understand the structure of the products. How it works. And to address any concerns that might have arisen at that point of time.” (F8)

As previously mentioned, the commodity Murabahah plays a vital function in building a new innovative Shariah compliant derivative product. From a competition perspective, it is very important for the IFIs to have access to these derivatives products in boosting the growth of investment business activities. Furthermore, there is an authentic socio-economic component that

makes it more attractive to investors of all faiths that the Islamic finance is dealing with ethical investment activities and is entering the market in full transparency as a common ground. However, based on the conservative approach, there are very few IFIs which have a demand for these derivatives products to hedge their portfolio as their clients are only dealing with very traditional business transactions. This is clearly stated by Ahmad Zaki below.

"...due to significant market transparency aided by robust regulations and surveillance by the regulators, very few market players feel the need to hedge their portfolio positions. There is a lack of demand from the clients and perhaps investors are not product savvy or are yet to explore these instruments..." (Nik Ahmad Zaki, Senior Portfolio Manager, CIMB-Principal Islamic Asset Management, Islamic Finance News, 23/10/2013, Volume 10, Issue 42)

According to Zaki, some investors prefer not to hedge their positions at all due to the absence of substantial volatility in the interest (profit) rates in the market, which may not prompt the use of derivatives. On the other hand, a large number of IFIs have subsequently decided to apply derivatives products in order to meet an increasing demand that is amplified by the environmental stakeholder's perspective in dealing with the business activities. Whether the demand becomes necessary and accommodates the demand that brings innovative activity which is strongly guided by ethical identity based on the Islamic finance principles. Similarly, Ayub (2017) identifies derivatives products as being part of the prime liquidity management tools that must be owned by IFIs based on the *tawarruq* or so called 'Commodity Murabahah' structure through derivatives products that are being used for the hedging strategy and risk management.

"There is no doubt that the development of these instruments has improved risk management capabilities of Shariah compliant transactions. It is up to the industry to capitalize and take advantage of this catalyst instrument for sustainable capital market operations." (F6)

Furthermore, the 'insider' of IFIs should be taken into consideration when of managing and mitigating any potential risks that may be faced by the 'outsider' subject to the business requirements that have to be achieved. Even though the method for mitigating unexpected risks is the same compared to CFIs as 'outsider', there is a different approach in formulating the existence of the ethical 'identity buffer'. Therefore, IFIs should interact with idiosyncratic or cross border business activities that may face significant market volatility as stated by the IFSB below.

"when it comes to taking risk, with regards to investment portfolio, there are credit criteria to be met. Also, it is the same goes for sukuk. NPL is very important for the bank to ensure that there is a certain cap that cannot be exceeded." (A2)

The above extract shows the complexity of managing the liquidity risk for the IFIs that necessitates the use of derivatives instruments. Observation reveals that IFIs have often found liquidity risk management a very challenging part of their daily business operations. The output of process identification has shown that the issues of liquidity management in IFIs need to be addressed

against the background of the developments that are taking place in CFIs which is the interest-based banking system.

“More than 30% of Fitch-rated Islamic banks do not currently use derivatives, while most of the remaining 70% use them only in a limited capacity, such as through profit-rate swaps and Islamic currency forward contracts.” (Bashar Al Nattoor, the global head of Islamic finance at Fitch Ratings, IFN Volume 17 Issue 27)

For the Islamic financial industry, given its relatively small size as compared to the conventional system, it seems natural to seek international solutions to these problems. In many of the countries in which it operates, IFIs form a relatively small part of the whole financial services industry in the country, which may itself be relatively small in global terms. Hence to have a local Islamic liquidity market of sensible size presents a challenge. Therefore, strengthening the demand for derivatives instruments as a liquidity management tools in IFIs, means that it has become compulsory to have, as long as their ethical identity is strictly well maintained and monitored by the ‘insider’.

Furthermore, the issues of liquidity management in IFIs needs to be addressed against the background of the developments that are taking place in CFIs. It is clear that the issue of liquidity management is a cause for concern for many market players. Essentially, it was impossible for IFIs holding what they thought were readily marketable instruments to realise them for cash except at significant discounts as to defeat the object. The second is the increased reliance of many institutions on wholesale market funding. The problem here is that a wholesale run on the bank can be faster, and even more destabilising, than a retail one. It takes time for small savers to queue up at branches to withdraw their money and, although the picture is frightening when it appears on the television news, the impact is not as fast as that of a relatively few institutions withdrawing overnight funding.

IFIs, as organisations that deal with the complexity of business transactions, cannot avoid high pressure in mitigating, minimising, and managing risks in interacting with massive market risks. The instability effectively and realistically enhances the demand of derivatives products within ‘insider’ IFIs. Analysis shows that, the insiders can help to implement controversial practices (derivatives products) in consideration of stakeholder’s demand as value advantage in competing with the ‘outsider’ (CFIs) that are considered as business competitors by maintaining their ethical identity as an ‘insider’ (Cattani, and Allison, 2014).

“An IIFS should be able to measure and forecast its prospective cash flows arising from on- and off-balance sheet positions over a variety of appropriate time horizons in different currencies and market conditions, using suitable metrics and methodologies including deterministic, behavioural and statistical modelling, where appropriate. The results of these calculations, along with suitable stress testing and scenarios analysis, should provide a basis for setting thresholds and limits, as well

as for making any adjustments in the liquidity risk management strategy, policies and procedures.”
(IFSB, Measurement of Liquidity Risk, principle 6)

It is important for IFIs to monitor the liquidity risk. IFIs should be able to measure and forecast their future cash flows arising from all of their positions, whether the assets of IFIs are reported on-balance sheet or off-balance sheet, over a range of time bands. Also, IFIs should assess their vulnerability to changes in its cash flows and liquidity requirements over time. IFIs' size and mix of balance sheet components is monitored in a range of time horizons, from intraday, overnight, weekly and monthly in order to assess the short-term, medium and long-term liquidity assessments. In order to reflect changing market conditions, the IFIs should be able to take into consideration the impact of potential payments and commitments arising from off-balance sheet items such as committed lines, guarantees, letters of credit and Shariah-compliant derivatives (SCD). In addition, in maintaining the quality of assets within IFIs, the SCD should be used as a hedging device to reduce the uncertainty activities of the market price movement. This is in line with the Al Barakah Seminar in 1997 (see, Al Barakah, 1997) that struggled to answer the question of market challenges within Islamic finance stakeholders and then officially endorsed the permissibility of hedging instruments in IFIs to use as a genuine hedging facility that enables the traders by adjusting their bank's balance sheet.

“The reason why we enter into a hedging transaction or derivative transaction basically to protect the position that we're taking whether it is, normally, cross-border transaction, whereby we, as a Malaysian investor, when we invest overseas for example in USD transactions or in Pound or UK, in certain type of investments, we need to hedge our position in terms of foreign currency as well as the interest rates.” (F8)

Nevertheless, according to the OIC *Fiqh* Academy members (see, OIC-FA 1999) clearly stated and agreed that the prohibition of trading activities in options instruments, they naturally prevented synthetic hedging mechanism by engaging with the newly obtained financial derivatives. Furthermore, Khan (2000) states that:

“Due to the prohibition of off-balance sheet derivative positions, Islamic financial institutions would like it desirable to maintenance a fully hedged balance sheet position. The typical challenge for the Islamic financial institutions in this regard emerges from the fact that profit and loss sharing (PLS) liabilities (mudarabah deposits) are completely re-price-able according to market conditions, but assets (murabahah debts) are completely non-re-price-able due to restrictions of sale of debt through conventional procedures.” (Tariquillah khan, the research team of the Islamic Research and Training Institute (IRTI), Islamic Development Bank Group, Jeddah)

As quoted by Khan (2000), there are at least two crucial aspects of IFIs in maintaining a fully hedged balance sheet position. Firstly, due to the non-re-price-ability of assets (*murabahah* financing schemes), depositors (*mudharib*) will be getting unexpected rates of return growths as a result of a decline/drop in the market mark-up prices and a rate of return decline as a result of an increase in market mark-up prices. Secondly, mitigating the market unpredictability requires hedging in opposition to a critical balance sheet mismatch. IFIs will have a preference to offer very short-term

funds to their clients and to avoid the long-term funds that will be costly to their balance sheet portfolio. In this case, the researcher disagrees that with proper exploration from different alternatives visible within the Islamic finance stakeholders and in line with the Islamic finance and business framework, such a risk is preventable by monitoring the financial risk that might face in the future. Likewise, an excellent Islamic financial system can be put in place, which can be free from speculations and manipulations activities.

Another noticeable risk affecting IFIs' liquidity is currency risk. The currency risk is especially significant given the limited hedging instruments available to IFIs in the financial market and cross border transactions. However, IFIs are under pressure to match their assets and liabilities by currency. The IFIs are most likely to be able to manage currency risks effectively whereby the domestic or non-domestic investments projects are in an international currency, particularly the dollar (USD) for specific durations. For instance, an exporter or importer who uses currency swaps (similar and part of the SCD instruments in IFIs) to control and mitigate currency risks that engages with an agreed duration by both parties (Litzenberger, 1992).

Moreover, the IFIs are also can provide the local currency financing mechanism to their client to avoid currency risks and maintain their assets-liabilities efficiently, more specifically during the COVID-19 pandemic when the markets became more uncertain and the exchange rates were unpredictable, many domestic currencies were pegged, formally or informally. In this regard, the IFIs are under pressure to manage currency exchange risk using any liquidity management tools to abide to the following standards:

"An IIFS should have a measurement, monitoring and control mechanism for liquidity positions in each currency with significant exposure. An IIFS should assess, monitor and, where appropriate, limit the size of its cash-flow mismatches over particular time horizons for foreign currencies in aggregate and for each significant individual currency in which it operates, especially with respect to its domestic currency (or, where different, its functional currency). The IIFS should employ appropriate stress tests and make use of Shariah-compliant hedging strategies for limit setting and controlling currency risk. The IIFS should especially limit its exposures in currencies that are not highly liquid or have low convertibility." (IFSB, Foreign Exchange Liquidity Risk, principle 14)

In addition, the respondent states that:

"Another pressure is someone (client) needs Euro financing, but we do not have Euro borrowing, so how can I offer if I do not have Euro liability? How can I have a Euro asset? At the time we did the swap. It is not business that asks us to deal with hedging or derivatives, but the business units requested from us to deal with the currency, and the only way to deal with the currency is to deal with derivatives. So, it is an indirect pressure for us to deal with derivatives transactions. Therefore, we need to adopt the derivatives. For instance, if someone puts their money in Senegal in the amount of the Euro 10 million for 5 years, and due to our rating we do our hedging, we give them Dollars and they give us Euro and whenever this currency is liquid. Euro is very liquid and that is how we manage to get Euro for 5 years, often getting it for seven years. We have the opportunity not in dollars but in Euro. By doing that they will be able to price the customers. When they let us

know how many years the repayments suit you, we go to the market and ask our derivatives counterparts whether they can do this. If they said yes, they would give the price and we would give the price to the customers and negotiate along that line. But if said, it is 18 years like in Turkey, and no counterpart would actually price the deals. At that time, we could not do this. When we cannot match the derivatives, we need to open exposure. We cannot have an open exposure; we have to close the exposure by a certain mechanism. The mechanism is we brought our product to the capital to fund that transaction. All that exchange derivatives from signal loss will keep our capital but not from our confident loss signal. If someone comes and says they want 5 years borrowing, more of the condiment, we cannot do that. These are some limitations.” (F2)

Another inherent risk is the profit rate risk. The risk management objective of a profit rate risk is to protect IFI's net profit margins from profit rate fluctuations by matching the profit rate characteristics of its assets and liabilities. In mitigating the profit rate risk, there are two main solutions; (i) the floating rate assets should be funded by floating rate liabilities with the same reference profit rate, namely 3-month or 6-month Libor of the relevant currency. (ii) fixed-rate assets shall be funded by fixed-rate liabilities with the same maturity and to the extent possible with the same repayment terms. Funding for either type profit rate can either be on the portfolio or back- to -back basis.

“... we wouldn't allow to generate income based on the hedging activities that as it is prohibited in the shariah principles because close to the speculative activities. At the end of the day, we must make sure the Islamic derivatives instruments for the purpose of hedging mechanism. This is very clear and transparent...” (A2)

In case of the expansion of its funding operations and liquidity management, IFIs might consider undertaking profit rate swaps/forward contracts and cross-currency swaps/forward contracts to increase and improve funding flexibility or enhance investment returns. Specifically, profit rate swaps/forward contracts allow IFIs to convert the profit rate type of its assets or liabilities from floating to a fixed rate or vice versa. Similarly, cross-currency swaps/forward contracts allow IFIs to convert the currency of its assets or liabilities from one currency to another. In this regard, the usage of Islamic derivatives is needed as liquidity management tools for IFIs that shall be undertaken to fully hedge open profit rate or currency positions rather than to take risk exposure for the purpose of generating profit.

5.3.2 The Demand for SCD for Cross Border Transactions

The recent unpredictability in financial industry at the start of 2020, more specifically in the IFIs ecosystem, was affected by the coronavirus (COVID-19) pandemic, oil price fall, and drops in exporting and importing and highlights the demand to operate and utilise effective Shariah-compliant derivatives instruments as a hedging strategy in mitigating and controlling the market risk, credit risk, and liquidity risk exposure. However, derivatives markets remain unused in most countries where IFIs ecosystem are in place with relatively strong regulations and supervisions between regulator and market players.

"...with the volatility in prices and currencies, there is a fair amount of interest in hedging instruments. However, he said the number of hedging transactions is low in the Islamic market. This is owing to the fact that the need for hedging by Islamic institutions is driven by actual economic transactions, which is largely lower in the Islamic market than in the conventional space." (Ijlal Ahmed Alvi, CEO of IIFM, Islamic finance News, 02/03/2011, Volume 8, Issue 08)

Furthermore, the researcher observes the need for an increased proposing and implementing of SCD instruments for risk management and a hedging strategy for IFIs as an insider and outsider including sukuk issuers, sukuk investors, takaful companies, and export and imports corporate companies for cross border transaction. Therefore, Shariah compliant derivatives instruments play an important role during these challenging situations (coronavirus pandemic) in mitigating the financial risk as stated in figure 5.1 above. Similarly, Al-Suwailem (2006) also mentions that derivatives allow for repackaging and designing in mitigating risks in any type that players find suitable for their preferences. This means that these derivatives instruments are appropriate as risk management tools and hedging strategies when facing and accepting risks with economic progress.

Nevertheless, many scholars and Shariah governing bodies are of the view that derivatives products including futures, forward and swaps contracts are not Shariah compliant because the derivative markets do not support and encourage *mashlahah* (public interest) which contradicts with the objective of Islamic finance (Makkah Fiqh Academy, 1984). As noted by the Makkah Fiqh Academy (1984), the derivatives products were clearly stated as part of the negative impacts to the IFIs ecosystem for the following reasons: *firstly*, the derivatives products are not 'real' transactions as the market players do not fulfil the actual transactions backed by the tangible underlying assets; *secondly*, regarding the derivatives arrangements, the sellers normally sell what they do not own to the buyers as another parties; *thirdly*, the derivative products are repeatedly sold and resold activities until maturity period to many parties; and, *fourthly*, the derivatives markets provide the purposes of the large traders at the expense of small traders that lead to the market manipulations with the outcome of economic failure.

"Hedging is about when you have an open option, you want to close it off. Meaning you put yourself back in the position where you are quite balanced. Arbitrage, on the other hand, is when you're actually taking the position or taking advantage on the particular movement in the market. While gambling is that you don't know or don't have the fundamental or you don't read the market's situation, you just bet. Speculation, to my mind, is not Haram because you don't really gamble since you do read the market's situation before making a speculation." (A4)

In the context of cross-border deal activity, especially during the coronavirus (COVID-19) pandemic, the researcher believes that derivatives products in IFIs had a significant impact and played a vital role in mitigating risks that come with unexpected risks from instabilities in profit rates, currency exchange rates, and commodity prices rates. Hence, the future growth of derivatives products in most countries where IFIs are established and prevalent will depend on their regulators

implementing and approving legislation that facilitates the enforceability of close-out netting provisions and collateral arrangement provisions in derivatives products and its agreements. In fact, the enforceability of close-out netting provisions plays an important role as it empowers IFIs to mitigate credit risks by terminating outstanding transactions with a counterparty following an event of default and calculating the net amount due to one party by the other.

“it is also encouraged for Islamic finance industry players to mitigate and really understand how to address certain types of risk so that their transaction or investment would be fruitful and come to the result that they are looking into.” (F8)

On this subject, the researcher believes that he has identified the high risk that will be affected by cross boarder Islamic finance activity which is a currency risk which is consistently attached and participated in cross-border Islamic finance transactions and which can create significant commercial issues with higher identified risks and costs for this deal activity.

5.4 Rationalising the Inclusion of Derivatives Products and the Clashes with the IFIs Ethical Identity Principles

“We have to clearly define what hedging is, and the difference between speculative trading and hedging.” (Asyraf Wajdi Dusuki, the head of research at ISRA, Islamic finance News, 08/02/2012, Volume 9, Issue 05)

A significant observation in exploring the risk management functions in an Islamic finance environment and its ecosystem requires engaging with mainstream derivatives products that were captured and used not only for hedging but also for speculation activities.

“The negative perception of Islamic derivatives centres on the playing up of this concept as well as uncertainty in the risk management of these products. That these instruments could easily be used for speculation appears to be the key reason for objection. However, the Shariah provides exceptions to these general principles to enable deferred sale where needed.” (Asyraf Wajdi Dusuki, the head of research at ISRA, Islamic finance News, 08/02/2012, Volume 9, Issue 05)

Based on the above quotes, speculation activities have to be removed from the transaction in managing and controlling the business risks. Thus, risk management in IFIs is implementing it in a way that to be used for hedging activities only or as non-speculative risk management tools.

“...our bank considers the use of Shariah Compliant Derivatives. The rationale is very simple when your client needs the end to end shariah compliant, in term of pricing that to be more competitive compared to the conventional bank, we have to use the Islamic derivative instrument as a hedging tool to protect maximise the profit especially in Islamic Bank...” (A2)

The use of Shariah-compliant derivatives products as a part risk management and hedging strategy are to reduce the volatility of market risks. These financial instruments are the outcome of the engagement between mainstream derivatives products with the Islamic finance principles. Similarly, the Shariah-compliant derivatives are part of product innovations that were mostly

introduced within the flexible regulatory environment that gives elasticity conditions and incentives in proposing for the Shariah compliant derivatives instruments in Malaysia. The Central Bank of Malaysia (BNM) is a critical regulator in Malaysia in supporting and also promoting the Shariah compliant derivatives for IFIs and CFIs that have Islamic business units in dealing with the Islamic hedging activities within Islamic finance stakeholders and its ecosystem is reflected Zeti Akhtar Aziz's speech at the 2007 GIFF Investors & Issuers Forum in Malaysia.

"...recognising the importance to develop Islamic hedging products for Islamic financial market to mitigate investment risks, Malaysia has introduced the first global Islamic Derivative master agreement to document Islamic derivative transactions. The effort is initiated by Bank Negara Malaysia and driven by the financial industry via the Persatuan Pasaran Kewangan Malaysia..." (Special address by Dr Zeti Akhtar Aziz, Governor of the Central Bank of Malaysia, 2007)

The quotation above showed the regulators acknowledgement as to the importance of and the need to introduce the Islamic derivative transactions in the financial market. The regulator argues that derivative instruments serve as an innovative risk management tool. There is also a demand to reap the potential to engage with market investment activities, such as private equity and cross-border financial transactions.

"the rationale in using shariah compliant derivatives is an alternative to the customers. As we mentioned earlier, we want to have a competitive as a conventional bank. If the conventional bank offers derivatives instruments, we should also offer the Shariah compliant derivatives." (A4)

Similar to conventional financial institutions, IFIs have to fulfil the business and stakeholders' expectations. Financial products are inevitably directed to facilitate the business and stakeholders' demands. In engaging with such transactions, there are various risks that IFIs have to mitigate, such as profit rate risk, currency risk, and commodity price risk. On the other hand, in mitigating those risks, IFIs are also limited in terms of liquidity management tools in the market.

"...it really depends on the business demand in the market because they are looking for the higher return (as this is a human nature). As far that we can keep with highest return, then we go in the market based on the calculated risk." (A2)

Besides the limited risk mitigation options, IFIs are also under pressure to maintain their competitiveness with their conventional financial institutions (CFIs) counterparts. As the financial industry develops and grows, the customers are exposed to a wide verity of options. Hence, IFIs need to find ways to innovate their offerings while maintaining optimal cost to survive in the market. Derivatives instrument provides the much-needed hedging solution except for one issue – the challenge to make it Shariah-compliant as reflected by one of the interviewees:

"Today, in our bank, we also look at the need to create an alternative for people. Sometimes, when you have this need to create an alternative or haajah in Arabic that influence the rules. Currently, we are looking at the sustainability concern..." (A1)

The above quote refers to engaging with the recreation of conventional derivatives that suits the IFI's image. These derivative instruments should be made free from the prohibited practices such as usury (*riba*), risk (*khatar*), uncertainty (*gharar*), speculation and gambling (*maysir*). There is also the need to avoid an exact copy of conventional derivative instruments that have been used and implemented by CFIs. IFIs argue that they need to inject Shariah-compliant elements into the structure of conventional derivatives. In that process, the Central Bank of Malaysia (BNM) agreed to accommodate the regulatory framework to support the development of Islamic financial derivatives in Malaysia. The whole process of negotiation between Islamic finance stakeholders, translation of ISDA 2002 Master Agreement, and modifying the structure of derivatives instruments in blending together with the Shariah compliant principles in the IFIs context is described in the following section.

IFIs, however, have to develop their Islamic treasury products in line with the Shariah principles. It is part of the ethical principles of IFIs that any contractual conditions or specific nature of each instrument must be in line with the Shariah principles (cross reference to the literature review that discusses this principle in the previous chapter). It is clearly stated by one of the respondents that they do not have any problems in proposing the new Islamic treasury products as the guidance is in place and supervised directly by the BNM:

"We do not have any problem or challenges in applying all Islamic principles into the Islamic treasury products because it is guided by the central bank of Malaysia with the Shariah parameters in Islamic products that has been issued by the Islamic banking department of Bank Negara Malaysia (BNM). For example, Tawarruq structure based on the commodity Murabahah basis, alrahn guideline, Bay innah guideline." (A2)

In fact, the above quotes identify two parameters to create an Islamic treasury product, and these are contractual in compliance with *Shariah* requirements and meet the business objectives of competitiveness and profitability. This common understanding of the product development process did not take into account the compatibility of these products with the rest of the *Shariah* requirements and the wider impact of such products on society. Therefore, there is a dire need to rethink the whole process of product development in IFIs to ensure that the results of their products are developed to meet all Shariah requirements and not only the contractual conditions of the legal agreements. This can be achieved by improving the current process, encompassing the entire framework of *maqasid al-Shariah* making it Shariah based instead of Shariah-compliant.

5.4.1 Preventing dealing with Interest (*Riba*)

"Abu Said al Khudri reported that the Holy Prophet (pbuh) said: "Gold is to be paid for by gold, silver for silver, wheat by wheat, barley by barley, dates by dates, and salt by salt, like for like and equal for equal, payment made hand to hand. He, who makes an addition to it or asks for an addition,

deals in riba. The receiver and the giver are equally guilty." (Hadith reported in Sahih Muslim, No.4064, El-Diwany, 2010, p.103)

The above quote is the most popular hadith on the definition of riba. The prohibition of riba, commonly translated as a ban on interest or usury, is the most well-known principle of Islamic finance. Providing interest-free financial services is therefore considered to be the sine qua non of Islamic banking (Khan, 2010). Translating riba as simply interest, however, is not only inappropriate but also misleading. Not all forms of what economists call interest e.g. the mark-up charged in credit sales and leases are prohibited in IFI's ethical identity. Furthermore, some transactions with an effective zero percent interest rate, e.g. borrowing money of USD 1,000 today for USD 1,000 in a year's time, are forbidden on the grounds of riba. More importantly, the riba prohibition applies not only to monetary but also non-monetary transactions i.e. the exchange of goods, as long as the goods exchanged belong to the same genus e.g. salt-for-salt (El- Gamal, 2006; Ayub, 2007; Nyazee, 2009, 2016; Visser, 2009; El-Diwany, 2010).

In IFIs, the ethical principles consequently recognise the time value of money (and other commodities) and takes into account that the change in values over time can potentially create unjustified gain for either party (El-Gamal, 2006, El-Diwany, 2010).

"Interest is a self-replicating mechanism that makes debt grow and multiply independent of the real economy. This eventually drains real resources to the benefit of lenders. Mark-up, on the other hand, is time value integrated into the real transaction. This eliminates the possibility of self-replication of debt. Time value as such is not the issue; rather it is the growth of debt independent of real wealth that threatens social welfare. By integrating time value with real transactions, this replicating mechanism is eliminated." (Al Suwailem, 2006)

The scholarly debate on *riba* has a long tradition and is still ongoing (Warde, 2000 and Visser, 2009). Nevertheless, it is critical to make a note of the rationale underlying the *riba* prohibition. Islamic finance principles prohibit the exchange of unequal amounts of the same good and delay in settling the counter-values because such transactions are seen as inflicting injustice upon one of the counterparties (El-Diwany, 2010). The ban on *riba* therefore is aimed at establishing justice and fairness and preventing exploitation in business transactions, by eliminating all forms of unjust and unfair exchanges, especially "*inequity in exchange*" and more specifically the expropriation of wealth in credit transactions (Kuran, 2004; Siddiqi, 2004, 2006; El-Gamal, 2007).

In this regard, the derivatives instruments are designed by Islamic financial engineering in order to accommodate the demands of IFIs. The foundation of Islamic financial engineering is the removal of *riba* and the replacement of *riba* with cost plus mark-up. Said differently, *riba* separates finance from real transactions. Since the two counter-values of a loan are identical, it follows that interest becomes purely the cost of time or the cost of pure finance.

5.4.2 Preventing dealing with Uncertainty (*Gharar*)

Uncertainty (*gharar*) is often translated as risk, speculation or uncertainty; however, translating *gharar* simply as uncertainty or risk can also be misleading as all commercial activities entail some degree of both. Ethically, Islamic finance does not forbid risk. In contrast, returns from commercial transactions are justified only when the associated risk is incurred. Uncertainty exists in transactions that are conditioned upon uncertain events and covers excessive risk taking and speculative elements. In engaging with the uncertainty elements in commercial business activities, there are a lack of transparency and riskiness involving into the contractual terms and its basic elements, e.g. the subject matter, its price, and the rights/obligations of either party (Warde, 2000; Ebrahim and Rahman, 2005).

“The derivative was seen to be something that are gharar and speculative. But we thought that derivative has a lot of features and functions, one use is actually to manage risk and also to mitigate that risk. If it is done in that manner, then it is hedging. But, if you are taking the advantages of the market or in another word, you’re manipulating the market, then it is called arbitrage. So, when you do arbitrage, it is not permitted. On the other hand, if you do hedge and it is permitted.” (A4)

The key concept of *gharar* indicates fraud, cheating, and deception as it relates specifically to the exploitation of others through uncertainty or incomplete information. The prohibition of *gharar* in IFIs, therefore, intends to remove commercial business transactions which apply asymmetric information as the basis for manipulation as well as those where either party earns a return purely on the basis of chance, e.g. through gambling which undermines the value of productive effort. Therefore, under IFI’s ethical principles, any profit received requires to be not only mutually agreed but also ethically justified (El-Gamal, 2006; Ayub, 2007; Visser, 2009). In this context, the implication of prohibition of uncertainty (*gharar*) in IFIs forbids derivatives transactions containing extreme risk event and speculation activities that are affiliated to gambling behaviours (Khan, 2010).

5.4.3 Avoiding a High Probability of Default and Speculation (*Maysir*)

“...while the introduction of Islamic derivatives is clear and noble for managing risks, it is still a controversial instrument in Islamic finance.” (Asyraf Wajdi Dusuki, the head of research at ISRA, Islamic finance News, 02/03/2011, Volume 8, Issue 08)

Contracting under excessive uncertainty (*gharar*) is akin to gambling (*al-qimar*) and uninformed speculation in its worst form is also akin to gambling (*al-qimar*). The holy Quran and the traditions of the Prophet (pbuh) explicitly prohibit gains made from games of chance, which involve unearned income (*al-maysir*).

“Personally, the definition of the hedging, speculation, and arbitrage are not so clear, and we have to look at more on the macro perspective. Are these transactions harmful or useful/helpful? Because there is a lot of research actually mentioned that the arbitrage and speculation will be

useful for the liquidity. In addition, if you need the arbitrage and speculation in order to enable the hedging and if you removed this one then hedging can stand to be as an alternative.” (A1)

“...transactions should only be entered into as a means of risk protection, not for speculation, which means that actual settlement of assets and payments must take place...” (Bashar Al Nator, the global head of Islamic finance at Fitch Ratings, IFN Volume 17 Issue 27)

Here it may be noted that the term speculation always involves an attempt to predict the future outcome of an event. But the process may or may not be backed by collection, analysis and interpretation of relevant information. The former case is very much in conformity with Islamic rationality. An Islamic economic unit is required to assume risk after making a proper assessment of risk with the help of information. All business decisions involve speculation in this sense. It is only the gross absence of value-relevant information or conditions of excessive uncertainty that makes speculation akin to a game of chance and hence, forbidden.

5.4.4 The Derivative Contracts Must include a Transfer of a Physical Asset

Derivatives unbundle risk from real economic activity and make it trade separately, thereby transforming risk into a ‘commodity.’ Creating a market for risk actually makes risk multiply. The commoditizing risk, therefore, is likely to make risk multiply and proliferate, thus making the economy riskier and less stable. Additionally, artificially severing risk makes it return in a more dangerous form. In fact, derivatives products end up with risk-reward structures that differ greatly from those of the underlying real assets.

“This production of artificial risk profiles creates arbitrage opportunities that are independent of real opportunities, which opens the door to pure speculation to take advantage of these artificial structures. In other words, artificial risk structures create artificial arbitrage opportunities that can be exploited through pure speculation with no connection to real economic activities. Pure speculation in turn distorts asset prices, leading to negative impacts on real investment opportunities. Consequently, capital committed to such speculation becomes exposed to risks unrelated to the real economy. Not only are these risks reflected back to the economy, they also distort asset prices, leading to negative impacts on real investment opportunities.” (Al Suwailem, 2006)

The above quote clearly states that derivatives products are actually instruments of loss. In reality, trading in derivatives transactions, such as futures and options, results in losses in more than 70% of the times. In this regard, the difference with the *Salam* Product, which is a Shariah compliant mode of finance, is that technically it is used for a future sale transaction in the Islamic finance setup. On the other hand, the on the other hand, The *Salam* Product is allowed as an exception under the futures.

“In a futures market of a certain commodity, any change in the price of the commodity registers profits to one party and equals loss to the other. In a salam contract, in contrast, the price is paid in full in advance. The advanced payment provides the seller the possibility to utilize it in a manner that could compensate for moderate price increases of the commodity. On the other hand, since

delivery is destined to a future date, the paid price is lower than the spot price. This discount provides a cushion for the buyer against moderate price declines. Therefore, the advanced payment provides a "safety margin" for both parties against moderate price fluctuations. This is in contrast to leveraged futures, where any price fluctuations present a gain to one party and a loss to the other." (Al Suwailem, 2006)

5.4.5 Avoiding Zero-sum Game Activities

"Derivatives are a zero-sum game: one counterparty's market loss is the other counterparty's market gain." (Greenspan,1999)

The above quote shows that the derivatives are a dangerous game where one party's loss leads to the other party's gain, which can easily cascade out of control and crash the economy. These are views against the use of derivatives by notable American scholars. Indeed, in many instances in history, many US states have banned derivatives. Thus, Islamic finance and Islamic hedging instruments may provide the United States with alternatives to relying 100% on derivatives usage for hedging risk.

"They are obligations to exchange certain amounts of money in a future date. The difference between prices at the time of contract and at maturity is debited from one party and credited to the other and that is why they are called contracts for differences. With the mark-to-market system, this is done on a daily basis. Even if the derivative is traded in a secondary market, the obligation as such survives throughout the life of the contract and whoever becomes party to it has to settle these differences." (Al Suwailem, 2006)

The above quote confirms that risk cannot be severed and separated from real transactions as this will make risk transfer a zero-sum game. Al Suwailem (2006) argues that derivatives deliberately sever wealth-creating activities from risk management, making them by construction zero-sum games.

5.5 Reassessing the IFIs' Ethical Identity Principles to Cater for the Demands for Derivatives Instruments

IFIs must promote real economic activity instead of monetary speculation (Ayub and Paldi, 2016). The principal ethical values of the IFIs' ethical identity disappear (*image blurring*) when the IFIs stakeholders contribute to duplicating and implementing CFIs' derivatives products.

"in promoting Islamic derivatives, the first part would be the awareness and really put a case why we really need this kind of instrument. And another part is to ensure that the market itself understands how this instrument really behaves, and how it differs from the conventional instruments. But of course, to the conventional players, they just want to know whether this Islamic instruments, the equivalent instruments, really deliver the same economic effect but of course, if we can show them that the Islamic instruments have certain extra features or anything that can really attract them to subscribe to Islamic derivative that would be very helpful to promote more acceptance to the Islamic instruments." (F8)

The main rationale for this permissive approach is the market demand, the corporate clients in dealing with volatilities markets and requirements from the shareholder demands to operate with profitability in a competitive environment as compared to CFIs. In this case, to cater for the demands from the markets, there is a clash between the nature of derivatives transactions with many aspects of IFIs' ethical identity principles that reflect a Shariah compliant approach.

"...shariah compliant hedging structures often comprise a series of separate transactions which together replicate a single conventional derivative. For instance, in order to replicate a conventional interest-rate swap, parties may enter into a series of commodity Murabahah — each replicating a fixed or floating payment leg. And because Shariah does not allow parties to enter into a transaction until each component of that transaction is certain, the parties undertake at the outset to enter into a series of future Murabahah transactions, on the basis that each transaction will only be executed when the relevant component — such as the floating rate — can be determined."
(Asyraf Wajdi Dusuki, the head of research at ISRA, Islamic finance News, 08/02/2012, Volume 9, Issue 05)

There is however, a dilemma facing derivatives instruments used by IFIs in accommodating the market demands and shareholder demands. Similarly, Jobst (2012) mentions there are five axioms of implementing derivatives instruments in an IFIs ecosystem as follows: *firstly*, the derivatives products are addressing the actual hedging demands connected with effective and intended ownership (*qabd*) in an identifiable asset or venture; *secondly*, guaranteed certainty of payment obligations arising from contingent claims on assets with clearly defined object characteristics; *thirdly*, contradiction in deferment of contractual obligations (*nasi'ah*) from the actual and direct transfer of a physical asset as the object of an unconditional transaction, except for cases when the doctrine of extreme necessity applies; *fourthly*, containing collateralized payment for the use of risk protection but ruling out provisions aimed at generating unilateral gains from interim price changes of the underlying asset beyond the original scope of risk sharing (*sharik*) among counterparties parties, which favors win-win situations from changes in the value of the reference asset, and; *fifthly*, eschewing all prohibited sinful activities (*haram*), in particular those deemed similar to gambling (*maisir*) and speculation due to uncertainty (*gharar*) by means of clearly stated object characteristics and/or delivery results, which mitigate the risk of exploitation from ignorance (*jahl*).

Furthermore, derivatives instruments in IFIs, are occupied in maintaining their ethical identity principles and promoting a *mashalah* (public interest) within the stakeholders demands and fulfilling the actual business requirements as well as complying with the Islamic finance principles (El-gamal, 2007). In this regard, it is in line with the views expressed by the interview participant below:

"...I think here we are very pragmatic in this bank and we are business centric. We try to understand thing to be more applicable in the business approach and in line with the shariah rules and principles. Also, I think the common language is between benefiting and harm..." (A1)

However, from a business operations perspective, there is substantial pressure for IFIs to minimise and manage the business risks that faced by the both parties either a bank as *mudharib* or customer as a *rabb al-maal* (investor) whereby the IFIs and/or their customers (investors and traders) are dealing with significant market risk volatility at the same time as being forced to enhance their risk mitigation in an effective way to enable them to be more competitive within the financial market.

In the meantime, the BNM guidelines on derivative instruments underline their usage, stating that: *“Derivative products can only be offered to customers who have an underlying interest to hedge.”* (Syed Siddiq Ahmed, Islamic Finance News, 23/10/2013, Volume 10, Issue 42). He further advised that hedging of foreign exchange exposures must be related to the trade activities and cannot exceed a tenor of one year.

In these circumstances, IFIs are forced to act in response to this pressure and business demand by creating the innovative solution in blending business and stakeholders needs in compliance with Shariah principles.

“...the bank’s shareholders opinions in the use of derivatives as a tool for mitigating the business risks are fine. The shareholders expect that everything that we can do in the conventional Bank, we should able to do it in the Islamic Bank. The Islamic Bank has to be the same risk profile compared to the conventional bank...” (A2)

The above quote marks a route for reassessing the Shariah principles to cater for the demands to utilise derivatives as liquidity and risk mitigation tools. The Shariah principles are adjusted to achieve a ‘Shariah-compliant’ derivative product. IFIs have to find a way to transform conventional derivatives features and ensure they are in line with Shariah. IFIs argue that the Islamic finance principles must be well integrated with the derivatives instrument to work as an ethically acceptable risk mitigation tool.

5.6 Conclusion

In conclusion, the Shariah compliant derivatives instruments used to replicate the CIFs’ derivative products do not address any *mashalah* (public interest) and need to be in line with the commercial business requirements as well as complying with the IFIs’ ethical identity principles. The main rationale for using these instruments is to control the risks, reduce the operational costs and prevent any losses acquired from day to day business transactions. IFIs must offer competitive advantage by focusing not only on the profit-oriented basis but also beyond return approach. Therefore, Shariah compliant derivatives instruments play an important role during these challenging situations (COVID-19) in mitigating all feasible risks including profit rates risk, currency exchange rates risk, and commodity prices rate risk. The Shariah compliant derivatives are used for

Chapter 5

a risk management tools and hedging business strategy which contributes to the economic growth and controls risks in a harmonious way.

Chapter 6 Designing the Shariah Compliant Derivatives as a Hedging Strategy for IFIs: from Negotiation Processes to Translation and Modifications Tactic

6.1 Introduction

This chapter aims to explore the construction of the innovative structure of the Shariah-compliant derivatives (SCD) in the IFIs. This chapter discusses the business demands of Shariah-compliant hedging instruments. Consequently, it brings the critical intention from the market players and regulators to construct and endorse the need to hedge against market risk, foreign exchange risk and profit rate risk in day-to-day business activities. On the other hand, IFIs are aware of the need to maintain their ethical identity. Therefore, the main objective of Shariah-compliant derivatives instruments must be to fulfil the business demands or investment's high performance and improve its impact in the global financial markets. In practice, the Shariah-compliant derivatives are introduced as a hedging strategy in mitigating the business risks of IFIs in dealing with the investors/institutional clients who are offering to their end clients in Islamic business activities. In this situation, IFIs are forced to be able to mitigate their liquidity effectively. The lack of Islamic treasury products of IFIs in the Islamic banking industry has resulted in the lack of optimal efficiency in managing the business risks of their balance sheet and their corporate clients compared to CFIs. The outcome will be the financial instability of IFIs and results in the use of conventional derivatives instruments.

6.2 Negotiation Process of the SCD Products

6.2.1 Internal Negotiation Process

“...we started in 2006 offering Islamic products. The Islamic products we offer to the clients are still insufficient compared to conventional ones. At the Group Treasury level, we have come out either on the Islamic deposit product structure or the foreign exchange (FX) product for hedging mechanism...” (A2)

The development of the Shariah-compliant derivatives (SCD) instrument is part of IFIs effort to create new innovative financial derivatives instruments in line with Islamic finance principles to accommodate business demands. The introduction of SCD instruments is about offering the Islamic

version of SCD that can be applied in the Malaysian market in facilitating business transactions between two local Islamic banks in Malaysia. It is clearly stated by one of the Islamic bankers:

“When we first introduced the product or the instrument, the purpose was to enter into transactions between two local Islamic banks in Malaysia and not for cross- border transactions. And then, the basic structure that would be acceptable would be either BBA, Bai Bithaman Ajil, or Bai’ Al ‘inah, but when the more acceptable structures come into the picture, then we venture into commodity murabahah as well as musawamah.” (F8)

In this respect, each new product proposal in IFIs usually requires an objective review process within the bank’s department, appropriate senior management and Shariah committee members before the IFIs are offered to their investors or corporate clients. This internal process should be in line with Bank Negara Malaysia’s regulation and involves the various parties internally within the Bank. The Islamic Derivatives expert clearly mentions the internal process below:

“The process is initiated by the product team; they actually design the product and everything. Everything will have to be asserted to the shariah committee and the board, even to the regulators, at a certain point to get it all approved. Once this is all approved and the right procedure has been established, the Shariah committee no longer play an active role. Basically, they want other shariah organs to make sure the product is being operated in a Shariah-compliant manner. We have the shariah reviews, the audit, the insurance, and we also have the shariah advisory team to actually advise the business unit when it comes to certain transactions whether they comply with shariah requirements. If any issues are detected, everything will be brought up to the shariah committee to debate whether or not you are engaged in something that is wrong or needs to be corrected or whether we need to improve the policy further. This is an active process, but when the product and police have been approved, it is just a question that follows what is guided by the shariah committee. When it comes to structuring the shariah compliant derivatives, you have to get approval from all the parties, the stakeholders, the risks, the compliance, and the IT system, and all have to sign off. The shariah committee will have to do the transaction. The board will have to approve. At a certain point, even the regulator has to agree.” (F6)

The above process is also in line with the objective of IFIs to have robust risk management in mitigating variety types of business risks internally and to support their corporate clients that have requested to manage their expected business risks, such as the unpredictability of exchange rates in dealing with cross border transactions, more specifically either for the exporter or importer. Two of the Islamic derivatives experts provide a further explanation below:

“Internally, it was born out of necessity. The risks team basically recognized that we needed to have a tool to manage our risks better, so the management started to push for it. The product team was trying to come up with a solution. The Shariah team was more neutral. We will have to basically satisfy their requirement before we can roll up the product. There is no conflict. For example, in terms of decision-making, it requires the whole bank. The risk must be comfortable with it. The traders must be comfortable with it. The whole product process is compliant, and everyone must be comfortable. Then we

can actually do the transaction. The decision-making involves everyone in the bank and the shariah committee.” (F6)

“...as an Islamic Treasury Product Development Team (Product Owner) must make sure and explain to the Shariah department team how the Islamic derivatives work, the risk, and the structure. Then, we need also to educate the shariah committee members. If they do understand how it works, then it will be easier for you to convince them, and they are the things that have the Shariah issue....” (A2)

Based on the above reasons and internal engagement and negotiation process, a new initiative to introduce Shariah-compliant derivatives transactions in offering the Islamic version of the conventional Interest Rate Swap (“IRS”) known as the Islamic profit rate swap (“IPRS”) was introduced as a risk management tool to be used by the bank and its clients. The proposed IPRS carries the same characteristics as the Conventional IRS but is differentiated by its trading of tangible assets rather than the trading or exchange of interest rates.

“...before we start procuring or submitting a full proposal or memo to the Shariah committee, we would normally socialize with our Shariah committee on a formal or informal basis to get their view on whether this kind of instrument has a higher possibility to be shariah compliant or not. We will use whatever avenues to ensure that everyone is aware of the transaction and everyone is aware of the ground or justification of why we need to develop such a product so they keep appreciating the arguments given by the products and the business and take into consideration whatever being approved or set by the Bank Negara....” (F7)

It is clearly mentioned that before submitting to the Shariah Committee members, the business units and product team needed to engage and communicate internally or informally with the stakeholders within the bank’s department. Then, there was a collaboration between the business units and product team with other departments such as Legal, Risk Management, Accounting & Finance, Information Technology (IT) and Shariah Department to discuss the proposed products. After a series of internal discussions and meetings, the CIMB Islamic team proposed the 6th Fiqh Council Meeting Council or Shariah Committee meeting dated 10th April 2004, chaired by Assoc. Prof. Dr Daud Bakar and three other Shariah committee members such as Dr Engku Rabiah, Dr Hashim Kamali and Prof Hafiz Elzaki, for their Shariah approval and follow the Shariah governance framework as explained below:

“A financial institution that offers new Shariah-compliant products shall ensure a sound and robust Shariah governance framework is in place that includes a comprehensive end-to-end Shariah-compliant product development and implementation process and the new Shariah-compliant product must meet the following conditions: (a) the product (including its accompanying documentations) must be approved by the financial institution’s Shariah Committee; (b) the product’s underlying Shariah contract, structure and features must be similar to the products that the SAC of the Bank has approved; and (c) the product must be consistent with the SAC resolutions.” (Introduction of New Products – Bank Negara Malaysia, issued on 7 March 2014).

Therefore, as stated above, the in-house/internal approval process of IFIs regulates that the product management team must submit all new products and finally be approved by the Shariah Committee members of IFIs through the Shariah officer in the Shariah Department. The Shariah Department will issue the Shariah Approval as a reference that the Shariah Committee members have approved the product. Therefore, from the beginning of introducing a new product, the product management team and other stakeholders needed to engage and communicate with the Shariah committee members and discuss it internally. One Islamic derivatives expert commented:

“We really need to engage with our Shariah committee just to ensure that we really meet their requirements because this is a new product to be offered by the bank or to be offered by the industry itself. So, we did engage with them in terms of their structure as well as certain features of the instruments... So, to address that, we did engage the Shariah committee just to ensure we meet certain Shariah requirements put by the committee itself.” (F8)

This Shariah approval can be used for internal purposes only or onward submissions to the relevant external authorities, including the Central Bank of Malaysia (BNM), and the Securities Commission (SC), may also be requested by an external client.

“In terms of the product approval process in Malaysia, at least, we have to go to all the stakeholders, so it is something that you have to convince everyone that this can be done, this is something acceptable when all is done, then you can give the products. The approval process is quite strict. You cannot have the Shariah disagree, the committee disagreed, but the board was on it. It has to be harmonious. Everyone will have to agree and want to do this. Otherwise, there is a no-go.” (F6)

During the presentation of the new innovative Shariah-compliant derivatives instruments, it was explained to the Shariah committee members that the Bank currently borrows short-term funds to invest in long-term investments; hence, it is difficult to liquidate the assets when borrowing rates fluctuate.

“When we started, it was based on Bai’ al-‘inah. Because just getting the concept approved and agreed upon in the market was common at that time. Later on, when we started dealing with diverse customers, it had requirements where Bai’ al-‘inah was no longer acceptable, and then we started moving on to the commodity Murabahah. Then when we bank engaged with IDMA or Tahawwut, there are certain acceptable formats. These structures evolve based on the needs of your counterparties' requirements. Then we have to remember that when entering into a derivative transaction, it is easy to like - this one follows ISDA, and this one follows IDMA, this one follows Tahawwut. If we know the format, we do not have to go through the agreement every single time. When it first started, you had to get both sides to agree because you did not have any format that you agreed upon. Now if the party has signed ISDA, IDMA, or the Tahawwut, then you know in terms of the format and everything. In terms of structure, I can go on and on, but if you want to know a specific area, which part do you want an update on because it is a universal thing anyway. If you engage into the derivative, you probably see the same structure now.” (F6)

At the beginning of this initiative, as specified in the above quotations, the proposed Islamic swap was based on the *Bai al-inah* contract to swap floating rates at fixed rates or vice-versa. Nevertheless, the Shariah committee members recommended that this should not be called 'floating' but rather 'current rate every six months', for example. A representative of Islamic bankers expressed a similar view:

"The product team is the core member of the structuring process. For the purpose of derivatives, normally, we would work with our shariah department team, the legal team and obviously our risk team to ensure that the underlying transaction addresses the hedging purposes. These are the main parties being the product as the core members of the structuring process." (F7)

In this sense, after the negotiation process between the CIMB team and the Shariah committee members, the members approved the structure but questioned why it had taken the industry so long to devise such a relatively simple structure.

"I think, based on my previous working experience in CIMB Group. I think we are fortunate to have a scholar, the like of Sheikh Nisam as well as Prof. Hashim Kamali, who was very supportive of this kind of instrument because they understand the bank's need for this transaction. Nevertheless, of course, we are not dealing with them alone. We are also dealing with other Shariah scholars, and with the help of these experienced Shariah scholars, our test makes it very easy to convince the rest of the Shariah committee. It is essential to put the objective, the understanding of why we need to enter this transaction correctly, and we know that under the Shariah principle, we are not allowed to enter into transactions that nature is more of gambling or speculation. So, as long as we avoid these prohibitions, I think the Shariah committee would accept it. However, it is just a matter of how we make them understand the arguments." (F8)

Thus, the Mudharabah Interbank Instruments (MII) were explained to them. They are used in the Islamic Swap structure as a medium or platform to expedite, buy and sell transaction activities under the Islamic finance principles.

"...after we received the shariah approval from our shariah committee members, the Shariah Advisory Council of Bank Negara Malaysia (SAC) are supporting our proposal as we are the market maker for this specific Islamic derivatives product..." (A2)

Furthermore, there are seven steps in the internal approval process for new Shariah-compliant derivatives products in IFIs. Firstly, the Islamic Treasury Product Development Manager (Product Owner) is to forward to the Shariah Department proposal for approval together with the required documents as described by the Central Bank of Malaysia (BNM) on introducing new products. Secondly, Shariah Department shall prepare an assessment and analysis and integrate the proposal with the required documents. Shariah Department shall provide comments (if any) within seven calendar days from the receipt of the proposal and a complete set of the required documents. Thirdly, if the Shariah Department opines that the proposal requires a new Shariah approval/ruling by the Shariah Committee of the IFIs, it will submit a Shariah paper on the proposal for presentation

at the next Shariah Committee meeting. In case of urgency, Shariah Department may consider other available communication with the Shariah Committee of the IFIs, which includes obtaining a Circular Shariah approval/ruling, which the Shariah Committee shall provide within seven calendar days from the date of the Shariah paper. If the proposal does not require a new Shariah approval/ruling, Shariah Department will endorse it in any form deemed appropriate. The Shariah Committee of IFIs shall ratify the endorsement in the next Shariah Committee meeting. Fourthly, upon obtaining approval/ruling from Shariah Committee, the Shariah Department shall issue a Shariah Approval/Pronouncement signed by the Head of the Shariah Department and forward the same to the Islamic Treasury Product Development Manager (Product Owner). Fifthly, the Islamic Treasury Product Development Manager (Product Owner) shall submit to the external authorities, if applicable. Sixthly, the Islamic Treasury Product Development Manager (Product Owner) shall ensure the proper arrangement of implementation and that the underlying asset specified in the documents are as approved by the Shariah Committee/ Shariah Department. Lastly, if the asset becomes not Shariah-compliant, the asset must be replaced, and the details thereof must be submitted for approval/ruling by the Shariah Committee/Shariah Department.

Subsequently, the findings related to the detailed steps used for developing new products by the IFIs should be followed with the specific requirements guided by the Central Bank of Malaysia (BNM), and IFIs should ensure that the product management process is complete to minimise the rejections from BNM. Therefore, there are three (3) principles that IFIs should follow in submitting a new Shariah-compliant product; in this case, Shariah-compliant derivatives instruments as shown below:

1. The IFIs must confirm that an appropriate process has been established to ensure proper Shariah governance and compliance with all Shariah requirements as prescribed under the *“Shariah Governance Framework for Islamic Financial Institutions.”*
2. The IFIs must ensure that all Shariah issues and challenges are carefully researched prior to the deliberation by the Shariah Committee of IFIs, and the Shariah Approval/ certification by the Shariah Committee must be supported by the relevant fiqh literature, evidence and reasoning.
3. The IFIs must verify that there is an effective process in place to monitor Shariah compliance of products on an on-going basis. This includes ensuring that all operational decisions concerning the product are conducted in a Shariah-compliant manner, for instance, only accepting collaterals that are Shariah-compliant for Islamic financing products.

6.2.2 External Negotiation Process –

On the 26th of April 2004, the Commerce International Merchant Bankers (CIMB) Islamic team submitted the Islamic swap as the first SCD instrument in the market worldwide. Two Islamic derivatives experts commented:

“...when we go for the approval to the central bank of Malaysia (BNM). It is strictly allowed for hedging purposes. In this case, we need to inform the treasury salesperson that when they are informing the clients that the Islamic derivatives can only use for the hedging purpose using the underlying asset...” (A2)

The CIMB Islamic team presented and deliberated in front of the Shariah Advisory Council for Islamic Banking and Takaful (the Council) at the meeting dated the 29th of April 2004. At the end of the discussion, the Council postponed the decision on the proposal and identified two main issues to be clarified by shown by the interviewee below:

“...the Shariah issue that we faced at that time is like netting off, close out, and others. However, now, these Shariah issues have been solved. That is why we can see the Islamic bank can deal with the Islamic derivatives instrument without any issue and problems...” (A3)

“First, the issue of setting the debt from the first and second transactions in each shariah contract of bai al-inah as the settlement methods. Second, the process of transfer of ownership and possession (qabadh) of a transacted asset (underlying asset) is to be improved and should reflect in the modus operandi of the Shariah-compliant derivatives instrument, in particular the Islamic swap.” (Feedback letter to CIMB dated 19 Mei 2004 – Bank Negara Malaysia)

Based on the above Shariah issues, the Bank proposed the same conventional method in determining the close-out amount based on the following understanding:

1. *Ta'widh* (compensation)

In one of its rulings, the National Shariah Advisory Council of Bank Negara Malaysia had approved the *ta'widh* or compensation on late payment. The conditions of the *ta'widh*, amongst others, are that the amount of the *ta'widh* must be determined by the third party (in this case Bank Negara Malaysia), must represent a loss borne by the financier, and must not be compounded. In this case, the Bank viewed that similar treatment can be done on IPRS arrangement, where the non-defaulting party, in the case of an Event of Default, and the appropriate one of the parties, in the case of a Termination Event can impose *ta'widh* amount to the other party which is equivalent to the close-out amount in the conventional IRS.

Also, the bank believed that the proposed close-out amount represents the loss borne by the non-defaulting party in the case of Event of Default and the appropriate one of the

parties in the case of Termination Event. This amount is not to be compounded, and the formula is to be determined by the third party, which is Bank Negara Malaysia, as practised in the case of *ta'widh* or compensation for late payment.

2. *Wa'ad Mulzim* (Binding Promise)

This is based on the opinion of Maliki jurists and Ibnu Syubramah, who opine that a promise is a binding contract, especially if the person who makes the promise puts the reason in his promise in order to confirm his commitment to the promise. In the case of the IPRS arrangement, the contracting parties have voluntarily signed the Master Agreement. The Master Agreement contains, amongst others, general conditions, compensations (“*Ta'widh*”), events of default and termination events and notices. This means that both parties are agreeable that in the event of default or termination event, the close-out amount should be based on the prescribed formula. The promise here is not only to sign for the future sale and purchase agreements to affect the obligation of one party to another but should also include the commitment by both parties to pay to the other party in the Event of Default or Termination Event, the close-out amount based on the agreed formula.

6.3 The Process of Translation of Conventional Master Agreement into Shariah Compliant Master Agreement

The Islamic Derivative Master Agreement (IDMA), in collaboration with the local legal firm in Malaysia, was approved by Bank Negara Malaysia (BNM), Malaysia’s central bank. The bank introduced it to support the development of Shariah-compliant hedging instruments to mitigate business and investment risks on IFIs. This documentation was the first template for an over the counter Shariah-compliant derivative transaction and was also to be used as a standard legal framework in the derivatives markets trading.

“IDMA basically is an initiative by the Malaysian banks, acceptable in Malaysia. But if you want to go into a cross-border transaction, we want to attract those familiar with ISDA. For example, then I think Tahawwut would be more suitable. The way it was drafted, I think it is more compatible with the ISDA documentation.” (F8)

This initiative allows the global Islamic financial industry, or IFIs, more specifically, to deal with Shariah-compliant hedging transactions. The International Islamic Financial Market (IIFM) and the International Swaps and Derivatives Association (ISDA) jointly the Tahawwut (Hedging) documentation under the guidance and approval of the IIFM Shariah Advisory Panel for this specific initiative and in consultation with market players and regulators. Additionally, the IIFM/ISDA *Tahawwut* (Hedging) Master Agreement was the first financial industry framework document that

is applicable across all jurisdictions where Islamic finance is practised and accepted by the market. The following diagram shows the evolution process of Shariah-compliant derivatives in Malaysia from the IDMA to TMA:

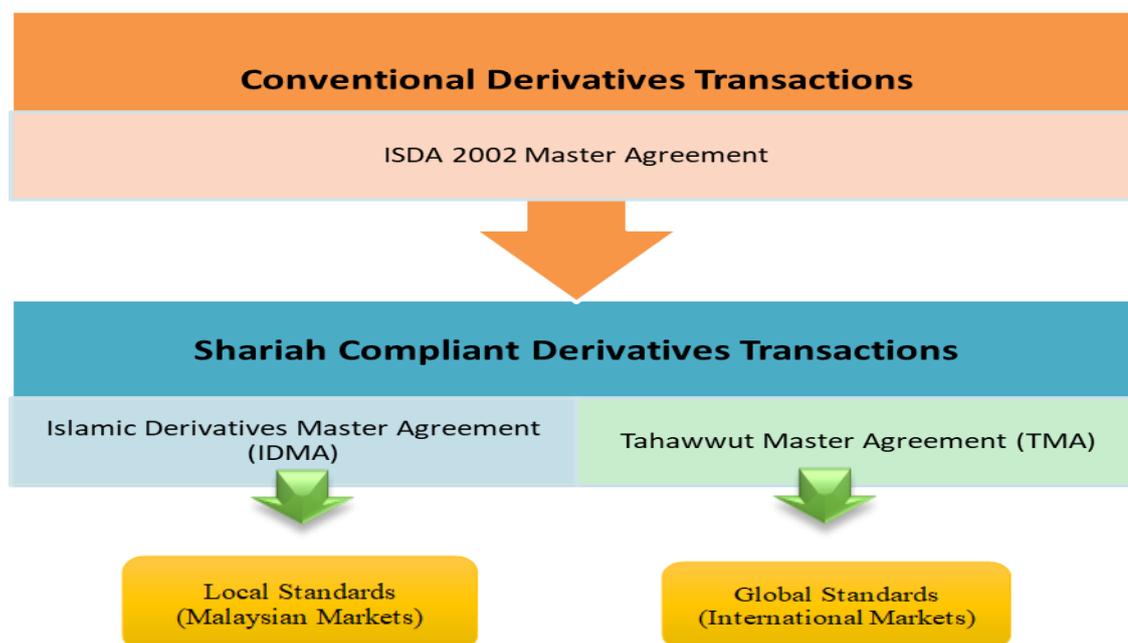


Figure 6.1 The Evolution Process of Shariah-compliant Derivatives in Malaysia

The International Swaps and Derivatives Association (ISDA) was established in 1985 to make global derivatives markets safer, more efficient and more effective. ISDA’s pioneering work in developing the ISDA Master Agreement and a wide range of related documentation materials and in ensuring the enforceability of their netting and collateral provisions have helped significantly reduce credit and legal risk. The Association has been a leader in promoting sound risk management practices and processes and engages constructively with policymakers and legislators around the world to advance the understanding and treatment of derivatives as a risk management tool.

“They are very close only in the Tahawwut Master Agreement. It is more generalized based on the ISDA (International Swaps and Derivatives Association). The IDMA is based more on the Malaysian market, so this is one difference between local and international. The legal aspect is powerful in TMA. It allows the flexibility to be erupted by multi-jurisdiction. At the same time, IDMA is to capture Malaysian entities. TMA is international, and IDMA is a local jurisdiction. Second, the Shariah governance in TMA is more elaborately made. For example, they are not allowed to appoint agents and want you to have your part of your mission. IDMA, by default, allows that to one party only. Otherwise, the structure is the same. Only Shariah is stricter in TMA. Universally it has acceptance because it covers the international market, while IDMA covers the local market. TMA is closer to the ISDA. For international entities that work on borders, TMA is the best. For local jurisdiction, either they can pick TMA or IDMA.” (F2)

The ISDA 2002 Master Agreement was initially created to provide absolute legal and credit protection between Conventional Financial Institutions (CFIs) parties who entered into over-the-counter derivatives transactions. However, with the current trends and fast growth of the Islamic finance industry globally, the ISDA 2002 Master Agreement was unable to facilitate Shariah-compliant business transactions. The CFIs have failed to choose in terms of hedging instruments from their IFIs counterparts that have no other options to choose from hedging instruments. The reason why the CFIs could not provide it is that the Shariah requirements required all Islamic hedging transactions to fulfil the conditions for the legality of the contract as per bounded in Islamic Law that transactions be free from the prohibited elements of *riba* (interest), *gharar* (uncertainty) and *maysir* (gambling and any other related to speculation activities). Similarly, the hedging transactions must also engage with the offer and acceptance, contracting parties and subject matter of the transaction between parties.

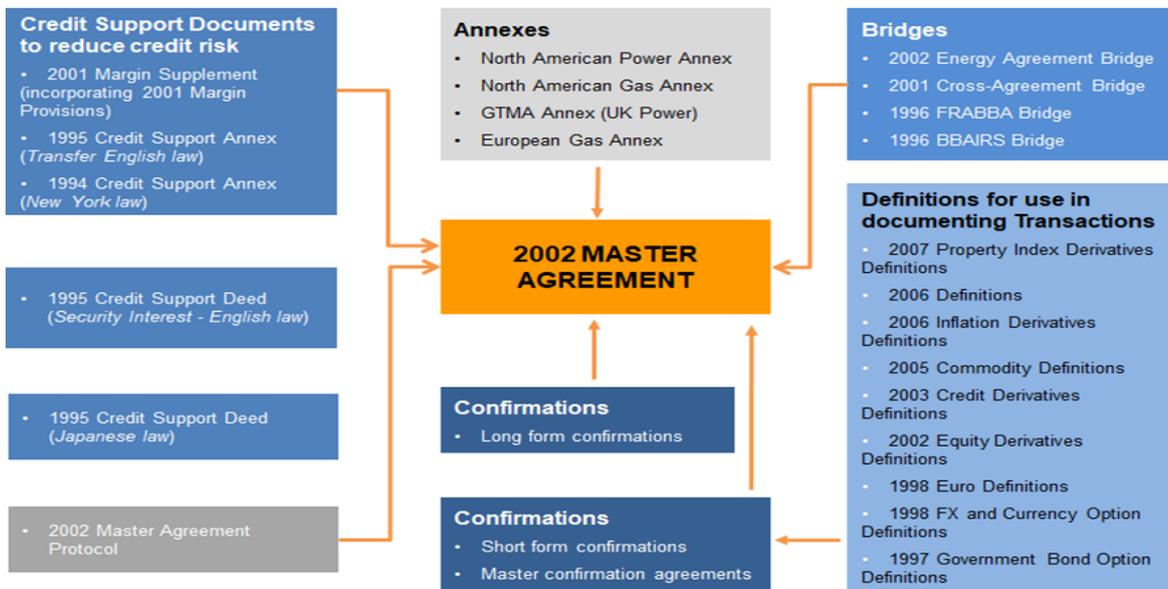


Figure 6.2 Conventional ISDA Agreement Structure Framework

Source: Clifford Change

“It is still very early days for the market, but we have been receiving interest for our derivatives products from institutional investors as well as companies who need to hedge their positions; without effective risk management, Islamic financial institutions cannot grow stably and aggressively.” (Badlisyah Abdul Ghani, CEO of CIMB Islamic Bank Berhad)

Functionally, the main objective for developing a template for the transactions in Shariah-compliant derivatives is to be able to deal with counterparties across the globe where the parties are agreed to reflect the Islamic finance principles into business activities or, more specifically, the financial derivatives transactions. In order to start the Shariah-compliant derivatives transactions, the IFIs tried to translate the current 2002 ISDA Master Agreement that was initially used for the

conventional financial derivatives transactions to be acceptably utilised by the IFIs or other parties in dealing with the Shariah-compliant financial derivatives transactions, especially in Malaysian derivatives markets.

Put simply, and in considering the business demands and environmental stakeholders' demands, then the Islamic financial innovator/ engineering of IFIs tried to re-design the conventional derivatives instruments with the "flavour" of Islamic finance principles in mirroring the conventional derivatives system while still maintaining their ethical identity framework. This is in line with the statement from the regulator that stated:

"...more on the market maker or consumer demand. For hedging purposes, are still comply with the shariah rules and principles. As the outcome, the hedging is mirroring to the conventional derivatives. Although there are some differences in structure and the shariah concept like wa'ad mulzim on the one side and later on the two sides." (E1)

Furthermore, the output of their modification is by producing the Shariah compliant derivatives instruments that can be used for hedging purposes only and these financial derivatives instruments fortified by the Shariah principles whereby executed by IFIs, CFIs and other stakeholders who react to mitigate their business risks, plus focusing on the profit maximisation orientation by imitating closely to the conventional derivatives technique and features. Therefore, the process of modifying the 2002 ISDA Master Agreement and transforming it into the Derivatives Master Agreement for an Islamic/ Shariah-compliant version is becoming very crucial in fulfilling their needs and business demands.

In this case, a right basis identification approach of the Islamic financial engineer is made by looking into the core features of the 2002 ISDA Master Agreement as an original conventional derivatives template to be maintained with the current features and then redesigning by "injecting" the elements of Islamic finance/ Shariah principles where necessary. Several practices in Islamic finance are to be included in the future document, e.g. arbitration. It is also envisaged to develop ISDA language, e.g. definitions or templates, for specific Islamic products, e.g. Islamic swaps transactions. From the outset of the drafting process, Shariah scholars have been informed about the process. This is in order to ensure that the necessary discussion about the concept of derivatives is being conducted at the appropriate time with the relevant people. The same applies to certain core principles of ISDA documentation to be included in the future document. It is envisaged that the final draft will go through the process of Shariah approval immediately. This project is the first attempt to draft master documentation for use in pan-Islamic markets.

In addition to developing documentation for Islamic derivatives transactions, the ISDA was in contact with various regulators in GCC countries, including Malaysia, to improve the legal and

regulatory framework for derivatives and netting generally. Throughout 2007, the ISDA worked in co-operation with the IIFM to promote the project with market participants and regulators across the globe. As a result, the business demands of Shariah-compliant hedging instruments consequently received significant attention from the market players and regulators to construct and endorse the urgency to hedge against market risk, foreign exchange risk and profit rate risk in day-to-day business activities. Therefore, the Islamic Profit Rate Swap (IPRS), the Islamic Cross Currency Swap (ICCS) and the Islamic Forward are practically observed to be the most common financial hedging instruments being discussed between the market players and regulators.

6.4 Translating the ISDA 2002 into the IDMA

“...we can have like similarly for example for Islamic derivatives instrument like the Islamic profit rate swap (IPRS), we are using the Islamic derivatives master agreement (IDMA) as the standard for the master agreement. However, outside Malaysia, majority of them are using the Tahawwut master agreement (TMA)...” (A2)

In 2002, Malaysia introduced the first Islamic Derivatives Master Agreement (IDMA), documenting Shariah-compliant derivatives transactions in steps to develop Islamic hedging products that are used to mitigate business risks within the counterparties. The IDMA was published by the International Swaps and Derivatives Association (ISDA) whereby the standard terms used and activated into a Shariah-compliant over the counter (OTC) derivatives transaction within IFIs and CFIs in the Malaysian Market. In general, the document's architecture is similar to the ISDA 2002 Master Agreement.

“...to work with the Tahawwut Master Agreement (TMA) and the Islamic derivatives master agreement (IDMA), I prefer IDMA. The reason why is that IDMA was written with the business in mind, and TMA was written with the Shariah in mind. Both are shariah compliant, but the IDMA is more a business approach...” (A1)

This IDMA was designed to facilitate the trading in over-the-counter (OTC) derivatives transactions between Islamic counterparties and conventional counterparties in a Shariah-compliant way. The IDMA is an alternative solution for IFIs in dealing with the hedging mechanism and risk management activities. In the meantime, the IDMA was a critical piece of documentation for future linkages between IFIs and their clients in offering Shariah-compliant derivatives instruments as a hedging strategy in managing a variety of business risks that are implicated in the financial stability and aggressive mode.

“...At the beginning of the Islamic derivatives transaction, ISDA is used as a template for the Master agreement of Islamic derivatives instruments after customising and modifying it into the Islamic Derivatives Master Agreement (IDMA). However, comparing them (ISDA

versus IDMA) are the same structure and mechanism except for the extra clause on the Shariah-compliant....” (A3)

The above quote shows there is a process of modification of structure and an adjustment mechanism of balance from the conventional master agreement, which is based initially on the ISDA 2002 Master Agreement, which was basically used for the conventional derivatives transactions and then transformed/converted into the Islamic Derivatives Master Agreement (IDMA). The new transformation of the IDMA for the Islamic version required a long process of negotiation between Islamic finance stakeholders, including market players (which are the IFIs and CFIs in dealing the Islamic business activities) and regulators (Bank Negara Malaysia) in translating into a new template for the Islamic hedging transactions in Malaysia. The reasons for the process of translation of the ISDA 2002 Master Agreement, which is commonly used by CFIs to IDMA to be used by IFIs is, stated by the interviewee below:

“Shariah-compliant derivatives want to make sure why they are mimicking the idea. We have to convince them that if we do not mimic them, then we will not have any other alternatives. The things we are trying to do are out of necessity. If we do not do it, we might be unable to serve the clients in other countries. The benefit of derivatives is much more misaligned with the harm of conventional structures. Following a conventional structure is not good. We are only doing it for the betterment of general humankind. It is like drinking alcohol is haram but flushing alcohol to the injured skin is good, and if we do too much, our hands will get burnt. So ideologically, we want to change our business structure, not the Islamic principle.” (F2)

This process identified the standard contractual terms and features in line with the need for Islamic finance principles and applied them to multiple business derivatives transactions and, more specifically, for the Islamic hedging business activities, which covered all trades between the parties involved in the transactions. Therefore, from a risk management approach, the aims of designing this new template are to incorporate the main pillars, such as ensuring the business transactions in the event of default or termination events, that the exposures of the parties under all outstanding transactions are aggregated and netted.

From a Shariah-compliant point of view, the IDMA was guided into a business transaction that was entered into for the purpose of hedging only based on the actual risk of the relevant parties. In this case, the business transactions should avoid anything related to interest (*ribawi*) and speculation activities which are backed by the underlying asset must be complied with and prohibited (*Halal*) within the Islamic finance ecosystem and its stakeholders. Based on the previous exploration, it is clear that IFIs were struggling to find a suitable Islamic structure and mechanism that could be utilised in the financial derivatives instruments, which could then be accepted by IFIs and its stakeholders. The main reason why IFIs are visibly exploring and initiating this hedging instrument

is that IFIs would not be able to manage their liquidity and mitigate their business risks compared to CFIs.

Factually, traditionalist Shariah scholars have rejected derivatives because hedging practices in IFIs are considered speculative activities on the currency and stock movements which disrupt the Islamic finance principles and contain prohibited elements of gambling which must be avoided as their underlying assets are uncertain in the transaction. The Hadith said below:

“You cannot be selling something in which you do not know the status of the subject matter.” (Hadith Al-Bukhari)

These uncertainties have developed with derivatives having evolved from relatively straightforward contracts, for example, foreign-exchange forwards, to sophisticated tools like swaps transactions and over-the counter-contracts between two parties that play on whether a company will default on its bonds within a specific time. On the other hand, some traditionalist Shariah scholars allow derivatives if they are utilised to hedge the business risks on existing investment activities or future financing transactions and are not for speculation purposes.

“Just as there are fewer takers for conventional derivatives, fewer Islamic investors are biting at Islamic derivatives” (Hooman Sabeti, Islamic finance lawyer with Allen & Overy).

In designing the IDMA, the template should be able to cover all the needs of Islamic finance stakeholders and fulfil the Shariah requirements, which is accepted into the IFIs ecosystem and its stakeholders. From business demands, there is significant business pressure in the Malaysian markets, whereby the traders vowed to protect their investor interest to generate more income and mitigate it with the lowest risks. Hence, this Master Agreement was initiated to support the Shariah-compliant derivatives as risk management and hedging tools for the Islamic finance stakeholders to act as a hedging solution whereby the IFIs are exposed to high volatility of business risks for cross-border transactions activities.

Historically, in April 2004, the Islamic derivatives or Shariah-compliant derivatives instruments were first initiated by the Commerce International Merchant Bankers Berhad (CIMB). The bank launched a Shariah-compliant hedging tool to provide the investors and its institutional clients an option to give them the right to deal with Shariah-compliant business activities. In order to launch a new innovative product in the market, the CIMB has to follow the internal approval process within the bank's ecosystem and also to get Shariah Approval from the CIMB Shariah Committee Members. The following is a process flow of a new Islamic product from approval to launching of the product

within the bank internally and the Central Bank of Malaysia externally, which is presented in Figure 6.3 below:

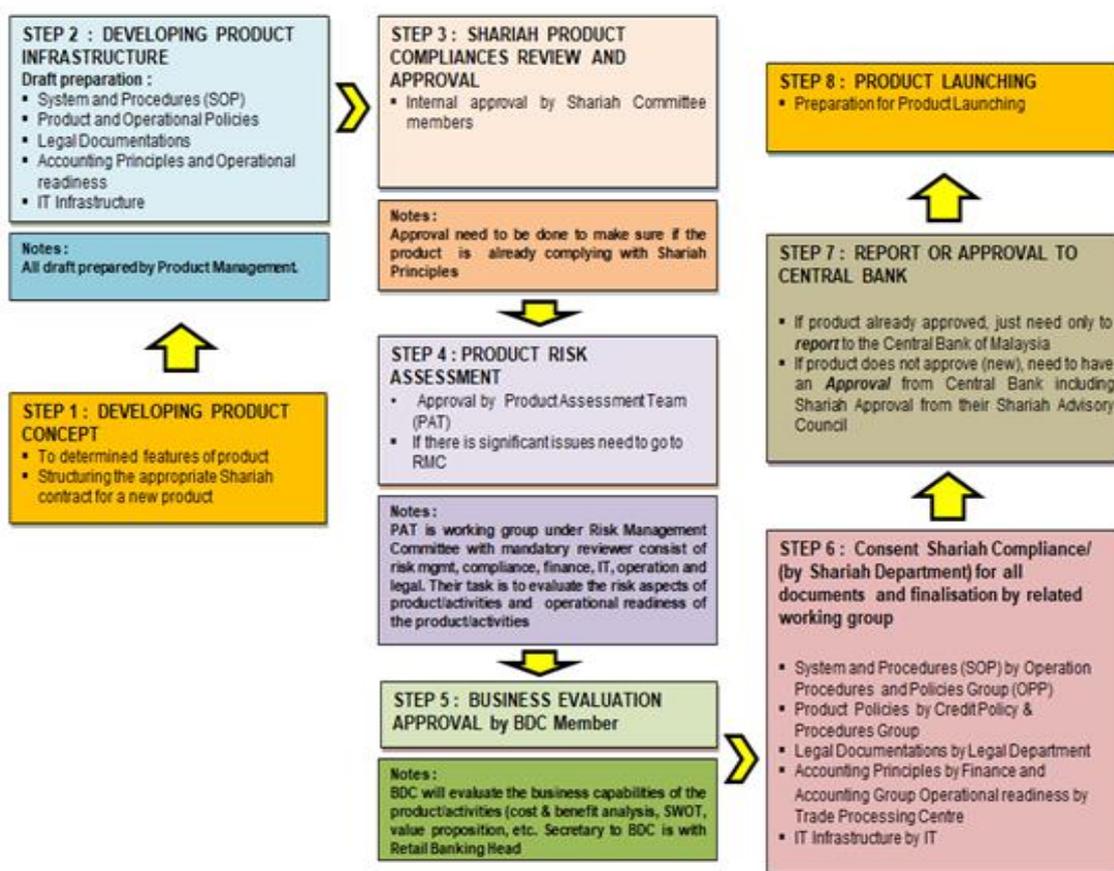


Figure 6.3 New Islamic Product Process Flow: Approval and Launching

Source: Modified from BNM on the Introduction of New Products

The CIMB proposed the Islamic Profit Rate Swap (IPRS) with several objectives: *first*, to reduce credit exposure as cash flow differentials are only exchanged and to achieve a faster speed of execution. *Second*, to achieve lower cost of funding at rates below those ordinarily available in the Islamic bonds (Sukuk)/ Islamic debt capital markets. *Third*, to obtain fixed-rate financing when it is not possible to access the Islamic bonds (Sukuk)/ Islamic debt capital markets directly. *Fourth*, to structure the profile of income cash flows. *Fifth*, to restructure a debt profile without raising new finance or altering the structure of the balance sheet. Regarding market segmentation, the Islamic Swap will be applicable in the local Shariah-compliant debt capital market approved by the Shariah Advisory Council of Bank Negara Malaysia (BNM) and the Securities Commission, respectively.

6.5 The Modification Process of SCD Products in the IDMA

Banks are usually dedicated to giving loans using hedged assets as collateral. Derivatives thus provide valuable tools for managing and hedging risk if used prudently. In this regard, it is argued that the hedging facility offered specifically by the Islamic swaps is part of Shariah-compliant derivatives instruments that can effectively reduce the cost price of an asset and allow flexibility in planning and financing arrangements.

“One big difference between Islamic and conventional derivatives is ethically we use the Islamic bank use the derivatives to protect and hedge the Islamic exposure if someone took a loan to finance an alcohol factory. We do not cover that with the Islamic profit rate swap or something. So, the Islamic derivatives were typically looking at the type of transaction we are facilitating. However, the conventional derivatives do not look at that approach”
(A1)

Furthermore, the process of structuring Shariah-compliant models of Islamic Derivatives is seen as the way to find an alternative result and the capability to structure the existing conventional derivatives instruments in modifying it with the Islamic finance contracts to enable it to be Shariah-compliant and accepted by the IFIs stakeholders whilst meeting the business demands in the existing markets (Jobst, 2007). Islamic Swaps are one of the essential classes of Islamic derivative instruments practised in the existing market and are competitively priced to provide an Islamic hedging solution to customers and investors who would like to lock-in future movements in profit rates and currency.

“The actual structure of the transaction, the Islamic derivatives uses Tawarruq to effect any cash payment. The conventional derivatives make a cash payment directly. However, I do not think there is a substantial difference between Islamic and conventional derivatives. The proof is that if you look at the Tahawwut Master Agreement (TMA) and the ISDA Master Agreement and then compare the two, they are like 90% the same.” (A1)

The IFIs have just assessed their exposure to the potential rate changes and fluctuations. The IFI's average duration of assets is six years, while the average duration of liabilities is three years. In this case, there is a mismatch that indicates that if the profit/exchange rates are increasing, then the value of the IFI's assets will decrease significantly compared to its liabilities. This was the beginning of the proposal for Shariah-compliant derivatives to be seen as an alternative to conventional derivatives instruments in managing and mitigating the business risks faced by many IFIs worldwide.

“...the only differences between the Islamic to conventional Derivatives are the structure because of the shariah compliance side. Secondly, we cannot speculate. We must stay back to back. So, the speculation element is not allowed in Islamic derivatives. Whatever the profit, we are using the commodity Murabahah. Moreover, all the prohibited elements in Islamic finance need to be removed in the Islamic derivatives transaction...” (A2)

Two types of Shariah contract structure have been proposed and introduced for the Islamic Profit Rate Swap (IPRS) as part of Shariah-compliant derivatives instruments by the market players in getting approval from the Central Bank of Malaysia (BNM) such as the *Bai al-inah* concept and Commodity Murabahah concept based on the *tawarruq* basis. The details are as follows:

6.5.1 Injecting the *Bai al-Inah* Contract into SCD Instruments

“The Shariah Advisory Council (SAC), in its 44th meeting dated 24 June 2004, has resolved that the proposed offset practice in the IPRS structure is permissible and does not tantamount to the sale of debt with debt, which is prohibited by the Shariah.” (Shariah Resolutions in Islamic Finance – Bank Negara Malaysia)

Principally, the Islamic Profit Rate Swap (IPRS) is an agreement entered into between two parties to mutually exchange profit rates (between a fixed rate and a floating rate) through the execution of a series of Shariah-compliant sales contracts to trade certain assets. The Shariah contract of *Bay al-Inah* was first injected into the Shariah-compliant derivatives instruments. The objective of IPRS is to enable the bank to manage the mismatch between cash inflow generated from the asset and cash outflow arising from the payment of expenditure or cost of funding associated with the liability side of the balance sheet.

In designing the product concept of Shariah-compliant derivatives generally and IPRS specifically, the CIMB team has proposed the Islamic Swap, which is based on the Shariah contract of *Bai al-Inah* either as an IFI or (*single*) or IFIs (*multiple*) and swap counterparty. The proposal of this product mainly involves the exchange of profit rates between relevant parties in two different ways, either fixed profit rate or floating profit rate. It is described by the CIMB Shariah committee members dated 10th April 2004 (with the following members: Assoc. Prof. Dr Mohd Daud Bakar, Dr Mohammad Hashim Kamali, Prof. Hafiz El-Sheikh Mohammed El-Zaki, Assoc. Prof. Dr Engku Rabiah Adawiah Engku Ali) below:

“Payment of Fixed Profit: On the transaction date, the Variable Counterparty shall sell a specified asset at a sale price (RM100mil + fixed profit rate) to transfer the ownership of the asset to the Fixed Counterparty and subsequently repurchase the asset from the Fixed Counterparty at a purchase price (RM100mil) which is lower than the sale price. The difference will be the amount to be paid to the Variable Counterparty, which is equivalent to profit based on a fixed profit rate payable on each profit payment date, e.g. six-monthly or any other period to be agreed by both parties until maturity.” (Shariah Pronouncement: Islamic Profit Rate Swap – CIMB Shariah Committee)

“Payment of Variable Profit: The Fixed Counterparty shall sell a specified asset at a sale price (RM100mil + variable profit rate) to transfer the ownership of the asset to the Variable Counterparty and subsequently repurchase the asset from the Variable Counterparty at a purchase price (RM100mil) which is lower than the sale price. The difference will be the amount to be paid to the Fixed Counterparty, which is equivalent to profit based on a variable profit rate. The transactions will be repeated at an agreed

interval, e.g. six months until maturity, and the profit rate will be fixed on the date of the transaction.” (Shariah Pronouncement: Islamic Profit Rate Swap – CIMB Shariah Committee)

Under the proposed IPRS structure shown above, there is either a fixed profit or a variable fixed. The CIMB introduced the Mudharabah Interbank Investment (“MII”) to be used as a medium to accelerate buying and selling transactions under the Shariah contract of *Bay al-inah*. The usage of MII is preferred due to its practical application and constraint in coming up with tangible assets under the normal buying and selling activities approach. Also, MII is similar to the Mudharabah General Investment Account Deposits which has been classified as a Shariah-compliant material by the National Shariah Advisory Council and therefore can be used in the deferred payment sale contract. The sale of the MII is based on the face value of the investment. A detailed example of the proposed IPRS whereby the party borrows floating to invest in fixed return Islamic bonds is illustrated as below:

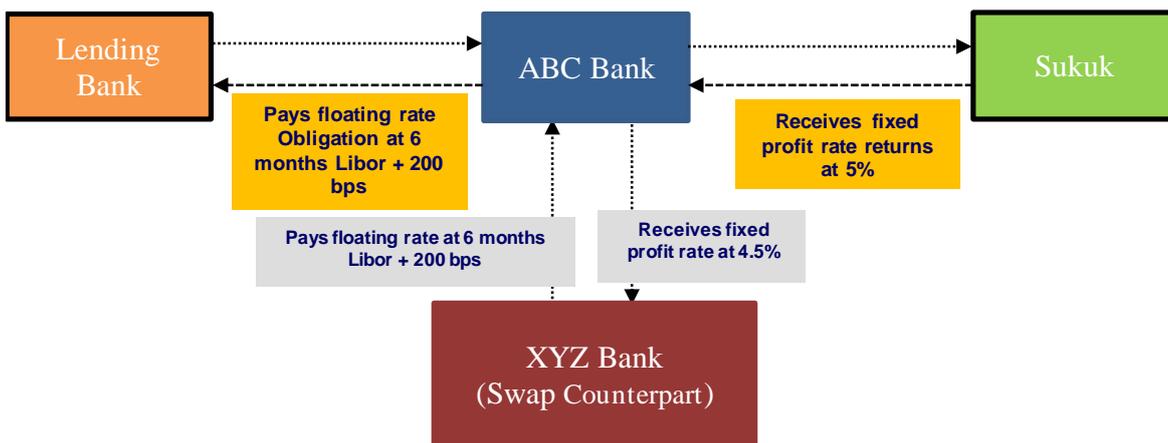


Figure 6.4 General Structure of Islamic Profit Rate Swap (IPRS)

From the illustration above, ABC Bank wants to invest in fix rate Islamic bonds (Sukuk) and needs fix rate find. Unfortunately, ABC Bank can only secure floating-rate funding from the market. If ABC Bank proceeds with the funding at a floating rate and purchases the fixed-rated Sukuk, it will subject itself to profit rate risk. Hence to mitigate this risk, ABC Bank needs to hedge its floating rate position by entering into IPRS with its swap counterpart. Once this is done, ABC Bank is now fully hedged. A detailed example of the proposed IPRS based on the Mudharabah Interbank Investment (MII) is illustrated below:

- a) Bank ABC places (invests) in a Mudharabah Interbank Investment (MII) with another IPRS counterparty.

b) Stage 1: *Fixed Profit Rate*: –

Firstly, Bank ABC sells its MII maintained with IPRS Counter Party at a selling price of USD 100 K to be paid upon completion of a subsequent transaction. Secondly, the IPRS Counter Party sells the MII to Bank ABC at the selling price of USD 100 K plus a fixed markup profit rate of, say, 6.25%. Thirdly, the USD 100 K is paid immediately by netting off the amount from the previous transaction, i.e. Step 1, while the fixed mark-up profit rate amount is payable every six months for one year. Fourthly, payment of part of the selling price by Bank ABC and IPRS Counter Party of USD 100K is set-off, i.e. from Steps 1 and 2. Lastly, Bank ABC sells CPO for USD 100K to CPO Commodity Murabahah Broker 2.

c) Stage 2: *Floating Profit Rate*:

Firstly, Bank ABC sells its MII maintained with IPRS Counter Party at a selling price of USD 100 K + current profit rate of, say, 6.25%, where the USD 100K is paid upon completion of a subsequent transaction while the current mark-up profit rate amount is payable after six months. Secondly, the IPRS Counter Party sells the MII to Bank ABC at a selling price of USD 100 K, paid immediately by netting off the amount from the previous transaction. Thirdly, Payment of the selling price by both Bank ABC and IPRS Counter Party of USD 100K is set-off, i.e. from Steps 1 and 2. Lastly, the net difference in profit is paid to the receiving party.

d) Stage 3: *Floating Profit Rate (Stage 2)*:

The floating Profit Rate (Stage 2) is repeated every six months until maturity.

6.5.2 Injecting the Commodity Murabahah Contract into SCD Instruments

“The SAC, in its 78th meeting dated 30 July 2008, has resolved that the proposed operational structure of CMH is permissible on the condition that the traded CPO shall be identifiable and precisely determinable (mu`ayyan bi al-zat) in terms of its location, quantity and quality in order to meet the features of a real transaction. In addition, it is also recommended that the transaction be executed randomly so that the CMH operation can better meet the original features of Tawarruq.” (Shariah Resolutions in Islamic finance, 2010, p.99)

As part of an ongoing effort in the process of structuring Shariah-compliant models of Islamic derivatives instruments for the best implementation in the market, CIMB Islamic Bank proposed that the IPRS carries the same characteristics as the Conventional IRS but is differentiated by its trading of tangible assets rather than the trading or exchange of interest rates. In this process, the trading of assets under the proposed IPRS is based on the Commodity Murabahah contract between banks or a bank and IPRS counterparty, using any tangible asset that is acceptable by Islamic finance principles.

Under the IPRS based on the Commodity Murabahah contract, the structure was to facilitate the exchange of fixed and floating profit rates between two counterparties. The proposed underlying concepts of Commodity Murabahah are based on combining two Shariah-compliant principles, *Tawarruq* and *Bai` Murabahah*. In this transaction, the Commodity which can be used under the *Murabahah* transaction is all tradable assets of non-ribawi items in the category of Medium of Exchange. A detailed example of the proposed IPRS based on the Commodity Murabahah is illustrated below:

a) *Flows of the Fixed Profit Rate:*

Firstly, the client appoints Bank ABC as an agent to buy CPO for a Principal amount of USD 100K on its behalf. Secondly, Bank ABC buys CPO contracts on behalf of the client for USD 100K from CPO CM Broker 1. Thirdly, Bank ABC buys CPO from Client for USD 100K + Fixed Rate (with Fixed-Rate to be paid every agreed interval, e.g. six months). Lastly, Bank ABC sells CPO for USD 100K to CPO Commodity Murabahah Broker 2.

b) *Flows of the Floating Profit Rate:*

Firstly, Bank ABC buys CPO for a principal amount of USD 100K from CPO Commodity Murabahah (CM) Broker 1. Secondly, Bank ABC sells to the client the CPO for USD 100K + Floating Profit Rate (with the Floating Profit Rate settled at the end of the six months). Thirdly, the client appoints Bank ABC as an agent (Wakeel) to sell CPO for USD 100 K. Lastly, Bank ABC sells CPO for USD 100K to CPO Commodity Murabahah Broker 2. The transactions under the floating leg will be repeated at an agreed interval, i.e. six months until maturity.

6.5.3 Injecting the Commodity Musawamah Contract into SCD Instruments

Generally, *musawamah* is a sale in which the price of the commodity to be traded is bargained between the trader and the purchaser without any reference to the price paid or cost incurred by the former. Consequently, the main difference between the Murabahah contract and the Musawamah contract is in the determination of pricing. In the Musawamah contract, the trader is not obligated to disclose the cost price, plus the profit margin, precisely and specifically (Ayub, 2007: 234).

The *musawamah* contract can be applied where the trader is not in a position to discover accurately the costs of commodities that he is offering to put up for sale. In other words, it is the sales of commodities which does not provide any indication of the original cost price, but bargaining is price

based. Indeed, the concept of the *Musawamah* contract is the most common type of trading negotiation seen in Islamic commerce.

Under the Islamic swap transactions, the parties enter into *Musawamah* contract to trade Shariah-compliant assets (primarily metals) based on the LME (London Metal Exchange) to each other. The commodities will deliver immediately, but the payment will be made on an instalment basis. Moreover, this contract is basically the same as the Murabahah contract, which is based on buying and selling plus cost profit margin. The profit margin is determined during the contract between two parties. However, in the *Musawamah* contract in the Islamic swaps, they are trading commodities with cost plus all other charges/ expenses, and the trader will not be required to tell their clients the details of the cost price and their profit in this transaction. Figure 6.4, 6.5, and 6.6 below illustrates the transactional flow of *Musawamah* contract in the Islamic swap transactions, explicitly:

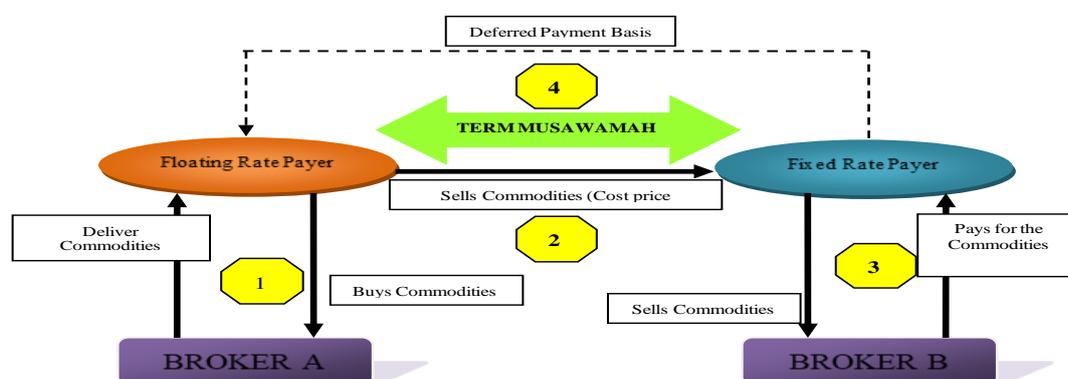


Figure 6.5 Structure of IPRS under Floating Leg (Based on Musawamah)

According to the above figure 6.5, firstly, the floating rate payer buys commodities from the supplier at a cost price. Subsequently, broker A (as a supplier) will deliver commodities that have been ordered. Secondly, the floating rate payer sells commodities under the *Musawamah* contract (cost price plus fixed profit). There is no obligation to disclose the price because this contract is based on the bargaining price. Thirdly, the fixed rate payer (as an agent) will sell commodities immediately to different commodities brokers to get cash. Lastly, the fixed rate payer pays for the commodities purchased on an instalment basis that has been agreed upon between the two parties. The instalment will cover both the cost price element and plus a fixed profit element.

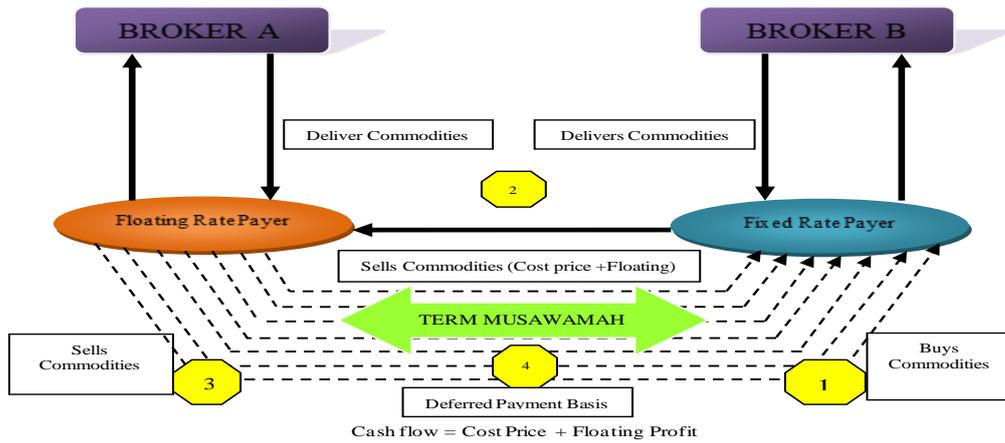


Figure 6.6 Second Structure of IPRS under Fixed Leg (Based on Musawamah)

As explained in the above figure 6.6, firstly, the fixed-rate payer buys commodities from broker B. then, broker B will deliver commodities to the fixed-rate payer. Secondly, the fixed-rate payer sells commodities to the floating payer. Thirdly, the floating rate payer immediately on-sells commodities to commodity broker A (the original broker in this transaction) to get cash on the spot. Lastly, the floating rate payer pays the fixed-rate payer on an instalment basis. The payment will cover the total value of commodities purchased plus a floating profit element that refers to his changes/ expenses without any disclosure.

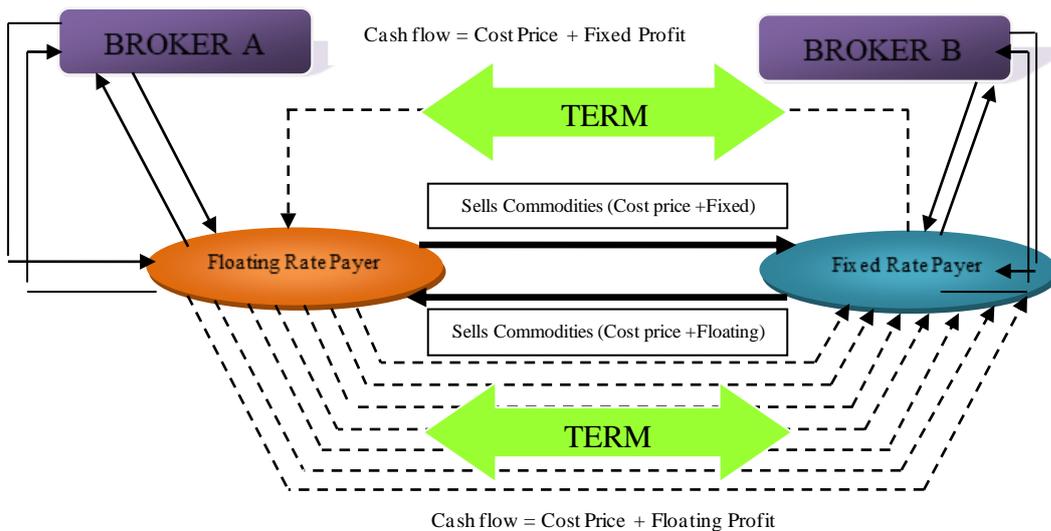


Figure 6.7 Full Combination IPRS between Floating and Fixed Leg (Based on Musawamah Contract)

According to the above figure 6.7, firstly, the floating rate payer buys commodities from the supplier at a cost price. Subsequently, broker A (as a supplier) will deliver commodities that have been ordered. Secondly, the floating rate payer sells commodities under the Musawamah contract (cost price plus fixed profit). There is no obligation to disclose the price because this contract is based on the bargaining price. Thirdly, the fixed rate payer (as an agent) will sell commodities immediately to different commodities brokers to get cash. Fourthly, the fixed rate payer pays for the commodities purchased on an instalment basis agreed upon by the two parties. The instalment will cover both the cost price element and a fixed profit element. Fifthly, the fixed-rate payer buys commodities from broker B. Then, broker B will deliver commodities to the fixed-rate payer. Sixthly, the fixed-rate payer sells commodities to the floating payer. Seventhly, the floating rate payer immediately on-sells commodities to commodity broker A (the original broker in this transaction) to get cash on the spot. Lastly, the floating rate payer pays to the fixed-rate payer on an instalment basis. The payment will cover the full value of commodities purchased plus floating profit element that referred to his changes/ expenses without any disclosure.

6.6 The Key Comparison Between the ISDA 2002 Master Agreement and the IDMA

“From my perspective, I do not see much different between both of master Islamic derivatives agreement (IDMA & TMA). Because the concept they are using it can be based on the commodity Murabahah structure. The only thing is that the enforcement of the legal. IDMA, normally we complement by CSA for example like the purpose of protect the risk normally we pushed cash. However, the TMA they do not have that, but now when the new something coming out with the new TMA so that can solve the issue between both master agreements.” (A2)

As mentioned above, the main characteristics of the ISDA Master Agreement are to be well-maintained and adapted to the Shariah principles. In designing the CFI’s function to be replicated and customised into the IFIs environment, the communication language must be the same as the original template.

“The master agreement will help in increasing the activity as it will refer to a mechanism which will be most widely accepted and used” (Ijlal Alvi – CEO of IIFM)

The following is the comparison between the ISDA Master Agreement and Islamic Derivatives Master Agreement (IDMA) parameterised based on clause to clause basis:

Table 6.1 The Comparison between the ISDA 2002 Master Agreement and IDMA

| Section | ISDA 2002 Master Agreement | Section | Islamic Derivatives Master Agreement (IDMA) |
|-----------------|--|-----------------|--|
| Preamble | <ul style="list-style-type: none"> a. "Date as of" b. "Transactions" c. "Confirmation" | Preamble | <ul style="list-style-type: none"> a. "Date as of" b. "Transactions" c. "Confirmation" d. Reference to Islamic Derivatives transactions under Shariah principles. |
| 1. | Interpretation: <ul style="list-style-type: none"> a. Definitions b. Inconsistency c. Single Agreement | 1. | Interpretation: <ul style="list-style-type: none"> a. Definitions b. Inconsistency c. Single Agreement |
| 2. | Obligations: <ul style="list-style-type: none"> a. General Conditions b. Change of Account c. Netting of Payments d. Deduction or withholding for Tax | 2. | Obligations: <ul style="list-style-type: none"> a. General Conditions b. Change of Account c. Netting of Payments d. Deduction or Withholding for Tax |
| 3. | Representations: <ul style="list-style-type: none"> a. Basic Representations b. Absence of Certain Events c. Absence of litigation d. Accuracy of Specified Information e. Payer Tax Representation f. Payee Tax Representation g. No Agency | 3. | Representations: <ul style="list-style-type: none"> a. Basic Representations b. Absence of Certain Events c. Absence of Litigation d. Accuracy of Specified Information e. Payer Tax Representation f. Payee Tax Representation g. No Agency |
| 4. | Agreements: <ul style="list-style-type: none"> a. Finish Specified Information b. Maintain Authorisations c. Comply with Laws d. Tax Agreement e. Payment of Stamp Tax | 4. | Agreements: <ul style="list-style-type: none"> a. Finish Specified Information b. Maintain Authorisations c. Comply with Laws d. Tax Agreement e. Payment of Stamp Tax |
| 5. | Event of Default: <ul style="list-style-type: none"> a. Event of Default b. Termination Event c. Hierarchy of Event | 5. | Event of Default: <ul style="list-style-type: none"> a. Event of Default b. Termination Event c. Hierarchy of Event |

| | | | |
|-----|---|-----|---|
| | <ul style="list-style-type: none"> d. Deferral of Payments and Deliveries During Waiting Period e. The inability of Head or Home Officer to Perform Obligations of Branch | | <ul style="list-style-type: none"> d. Deferral of Payments and Deliveries During Waiting Period e. The inability of Head or Home Officer to Perform Obligations of Branch |
| 6. | <p>Early Termination; Close-Out Netting:</p> <ul style="list-style-type: none"> a. Right to Termination following the event of Default b. Right to Termination following the event c. Effect of Designation d. Calculations: Payment Date e. Payments on Early Termination. f. Set-off | 6. | <p>Early Termination; Close-Out Netting:</p> <ul style="list-style-type: none"> a. Right to Termination following the event of Default b. Right to Termination following the event c. Effect of Designation d. Calculations: Payment Date e. Payments on Early Termination. f. Set-off |
| 7. | Transfer | 7. | Transfer |
| 8. | <p>Contractual Currency:</p> <ul style="list-style-type: none"> a. Payment in the Contractual Currency b. Judgements c. Separate Indemnities d. Evidence of Loss | 8. | <p>Contractual Currency:</p> <ul style="list-style-type: none"> a. Payment in the Contractual Currency b. Judgements c. Separate Indemnities d. Evidence of Loss |
| 9. | <p>Miscellaneous:</p> <ul style="list-style-type: none"> a. Entire Agreement b. Amendments c. Survival of Obligations d. Remedies Cumulative e. Counterparts and Confirmations f. No Waiver of Rights g. Headings h. Interest | 9. | <p>Miscellaneous:</p> <ul style="list-style-type: none"> a. Entire Agreement b. Amendments c. Survival of Obligations d. Remedies Cumulative e. Counterparts and Confirmations f. No Waiver of Rights g. Headings h. Compensation |
| 10. | Offices: Multibranch Parties | 10. | Offices: Multibranch Parties |
| 11. | Expenses | 11. | Expenses |
| 12. | <p>Notices:</p> <ul style="list-style-type: none"> a. Effectiveness b. Change of Details | 12. | <p>Notices:</p> <ul style="list-style-type: none"> a. Effectiveness b. Change of Details |
| 13. | Governing Law and Jurisdiction: | 13. | Governing Law and Jurisdiction: |

| | | | |
|-----|---|-----|---|
| | <ul style="list-style-type: none"> a. Governing Law b. Jurisdiction c. Service of Process d. Waiver of Immunities | | <ul style="list-style-type: none"> a. Governing Law b. Jurisdiction c. Service of Process d. Waiver of Immunities |
| 14. | Definitions: Default Rate | 14. | Definitions: Compensation |

Based on the above Table 6.1, the Shariah-compliant approach was diverse compared to the conventional derivative transaction, which is under the ISDA 2002 Master Agreement and guided by Islamic finance principles. That in order to ensure that ensuring the Shariah derivatives transaction comply with the above principles, the transactions between parties should be directed by the following Shariah compliance rules such as (1.) the Shariah derivatives transactions entered into under the IDMA should only be to hedge actual risks of relevant party; (2.) the Shariah derivatives transactions should not be entered into under the IDMA which are for speculation mechanism; (3.) the Shariah derivatives transactions must be free from the element of interest [*riba*] and changed with the term of compensation under section no.9 of the IDMA; (4.) the Shariah derivatives transactions must be actual transactions which involve the actual transfer of ownership of underlying/tangible assets between buyer and seller. The process of transactions impacted with the actual business risk and real settlement; (5.) the underlying asset of the Shariah derivatives transactions must be accepted and permissible (*halal*) from the Shariah compliance aspects.

The IDMA has provided a further direction in developing and structuring products and in allowing IFIs to protect themselves against market uncertainties. Importantly, it also promotes the IFIs in maintaining their ethical identity to be realised and materialised from any speculation activities that are to be considered unethical and non-shariah complaints. Thus, the main purpose of the IDMA is to be strictly used for genuine hedging risk purposes.

6.7 The Compensation Structure in the IDMA

Compensation refers to a financial penalty as is required by the IFIs over the amount of instalment when a client (IFIs or CFIs) fails to repay on due dates as per the agreed parties in this transaction. This compensation is discussed with the aspects of default in payment, default in deliveries, default in deferred payments and default for delayed deliveries. Furthermore, other differences between the ISDA 2002 agreement and the IDMA are clearly stated in the above table in section 9 regarding the compensation charge to exclude chargeable interests (*riba*) in the transaction, whether directly or indirectly, from any counterparty.

The Shariah Advisory Council (SAC) of Bank Negara Malaysia, in its fourth meeting dated 14 February 1998, has resolved that the late payment charge imposed by an IFI covering both concepts of *gharamah* (fine or penalty) and *ta'widh* (compensation) is permitted in the Islamic finance ecosystem and is ethically approved subject to the following conditions;

“(i.) Ta'widh may be charged on late payment of financial obligations resulting from exchange contracts (such as sale and lease) and qard; (ii.) Ta'widh may only be imposed after the settlement date of the financing became due as agreed between both contracting parties; (iii.) IFI may recognise ta'widh as income on the basis that it is charged as compensation for actual loss suffered by the institution; and (iv.) Gharamah shall not be recognised as income. Instead, it has to be channelled to certain charitable bodies.”
 (Shariah Resolution in Islamic Finance - Bank Negara Malaysia)

Moreover, according to guidelines on late payment charges for IFIs issued by Bank Negara Malaysia (BNM.RH/GL 008-14), it cited that the IFIs can be compensated by way of *ta'widh* up to the actual amount of losses earned by the IFIs. The actual loss to be compensated from any default payment, (1) from the date of payment until the maturity date shall not be more than 1% per year, (2) from default payment which exceeded the maturity date shall not be more than the prevailing daily overnight Islamic Interbank rate (IIMM) on the outstanding balance (subject to *ibra'* if applicable) of the Islamic financial product [refer to figure 8-10], (3) the reference rate for the actual loss shall be determined at the point of default, computed on a monthly basis from the payment due date, (4) the *ta'widh* earned shall also be included in the computation of profit distributable to depositors/investment income holders.

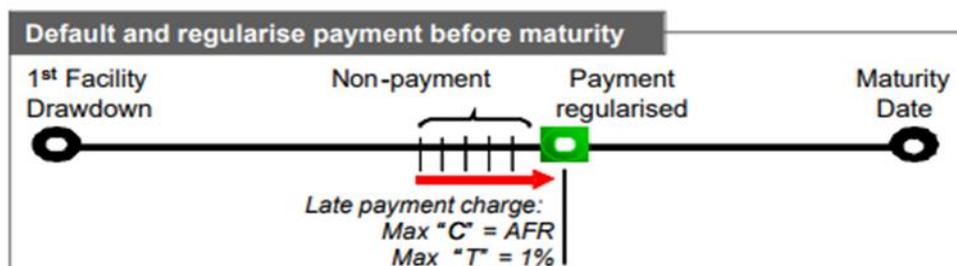


Figure 6.8 The Case of Default and Regularise Payment before Maturity

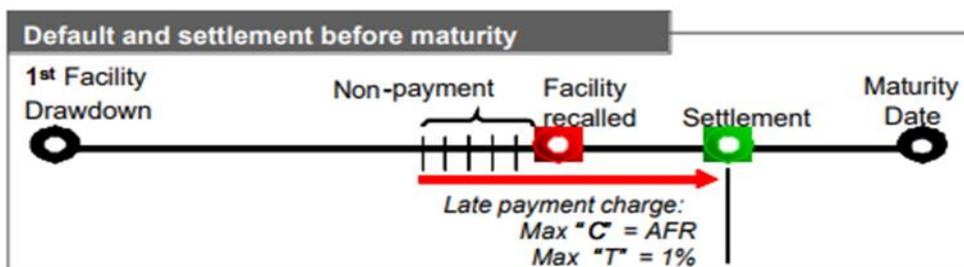


Figure 6.9 The case of default and Settlement before Maturity

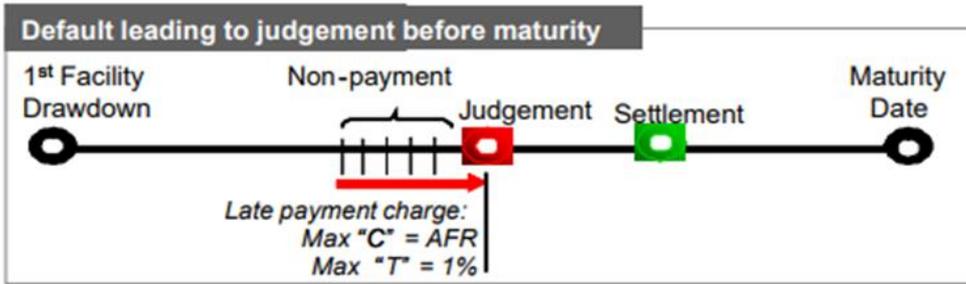


Figure 6.10 The case of default leading to judgement before maturity

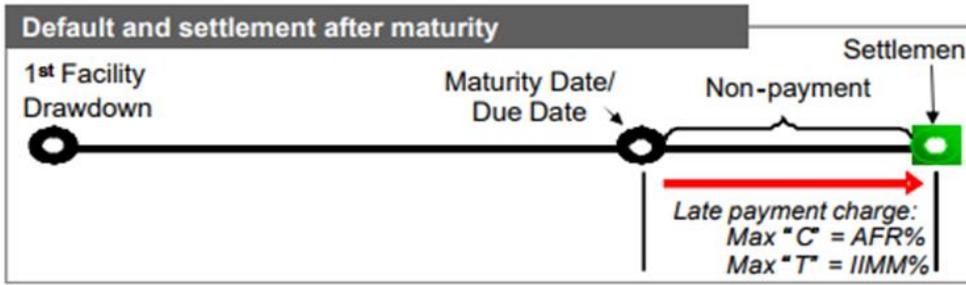


Figure 6.11 The case of default and settlement after maturity

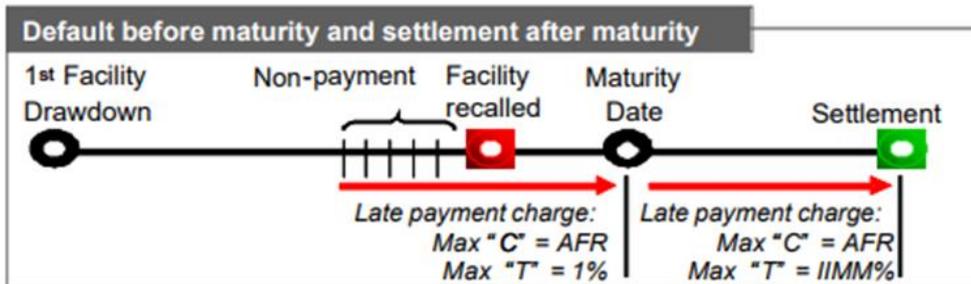


Figure 6.12 The case of default before maturity and settlement after maturity

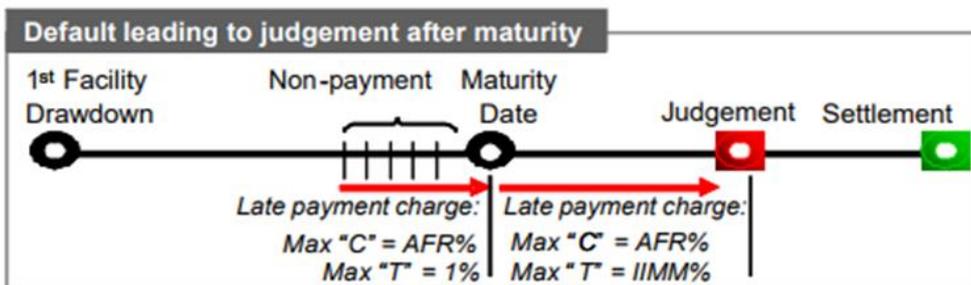


Figure 6.13 The case of default leading to judgement after maturity

Based on the above six figures, the SAC of BNM clearly stated that the compensation (*ta'widh*) is permissible and recognised as income on the basis that it is imposed based on the actual loss incurred by IFIs. Furthermore, in the general context of late payment charges in IFIs, there are argumentative points regarding the obligation of late payment charges. The first issue is the

permissibility of the charge itself. Second, the method of determining the rate as stated in the above figures and the third issue is the treatment of the proceeds from the charge. Concerning the permissibility of the charge, most modern Islamic scholars opine that it is acceptable and allowed to be implemented into IFIs operations. Referring to several documented evidence particularly the prophetic hadiths, some contemporary scholars in Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) are in support of late payment charges or penalty in dealing Islamic finance business activities whereby the borrowers who intentionally refuse to pay as committed during the agreement between parties and classify them under the type of corporal punishment or *ta'zir* (Yaakub, 2014; AAOIFI, 2015).

The second issue is the method to determine the total amount of the charge that is reasonable to both the client as a borrower and the IFIs as a financier. It is argued that the late payment must be based on the actual loss basis earned by the IFIs as the financier. In terms of a loss mechanism in the financial transaction that may contain the cost that IFIs have to cover the complete payment of the debt that has been granted to the debtor. In this issue, the cost is of two types, direct like the cost of documenting the debt and indirect, like the employees' wages and the rent of the operating office. The AAOIFI, in its Shariah Standard No. 19, specifies that IFIs can only charge direct costs and expenses related to the disbursement of the debt. From this approach, any costs that are charged over and above the amount of direct and actual incurred costs will be considered as interest (*riba*). From this assumption, most Islamic scholars have decided to approve all administrative costs and expenses related to the debt or financing must be taken by the debtor for the rationale of the service facility and overheads items in facilitating the payment of such debt. IFIs earn payments in tracking down the debtor throughout the default period. Therefore, these indirect costs should be included in the compensation as well. Contemporary scholars such as those in the AAOIFI are of the opinion that the payment for compensation must be in accordance with the value of actual loss incurred (AAOIFI, 2015).

The third issue concerns the treatment of the proceeds from the late payment charge received by the IFIs. In this issue, there are different rulings between contemporary Islamic scholars related to the treatment of the procedure as bank revenue, and the most popular and acceptable view of Islamic scholars is that the charge can be documented or recorded in the bank's books as "revenue" to offset the actual expenses incurred in managing the delinquent account (AAOIFI, 2015).

There are two categories of compensation in the IDMA, as mentioned above in Figure 6.14, the first is prior to early termination, and the second is early termination. They were compared to the 2002 Master Agreement that provides for interest on defaulted or deferred payments and defaulted or deferred deliveries. Therefore, in order to comply with the principles of Shariah principles, the

compensation (*ta'widh*) may be recognised as income on the basis that it is charged as compensation for actual loss suffered by IFIs. This is similar to the early termination in the ISDA 2002 Agreement. Nevertheless, most significantly of all, the calculation of the total amounts to be paid following the event of an Early Termination Date has been thoroughly improved to be in line with the Shariah principle necessities. The Agreement separates the calculation of the total amounts to be paid following the event of an Early Termination Date into two, the first being in respect of concluded Transactions for which the assets sold have been thoroughly circulated and the second in respect of concluded Transactions for which the assets sold have not been wholly circulated and Designated Future transactions. These amounts are then capable of being set off under the Agreement.

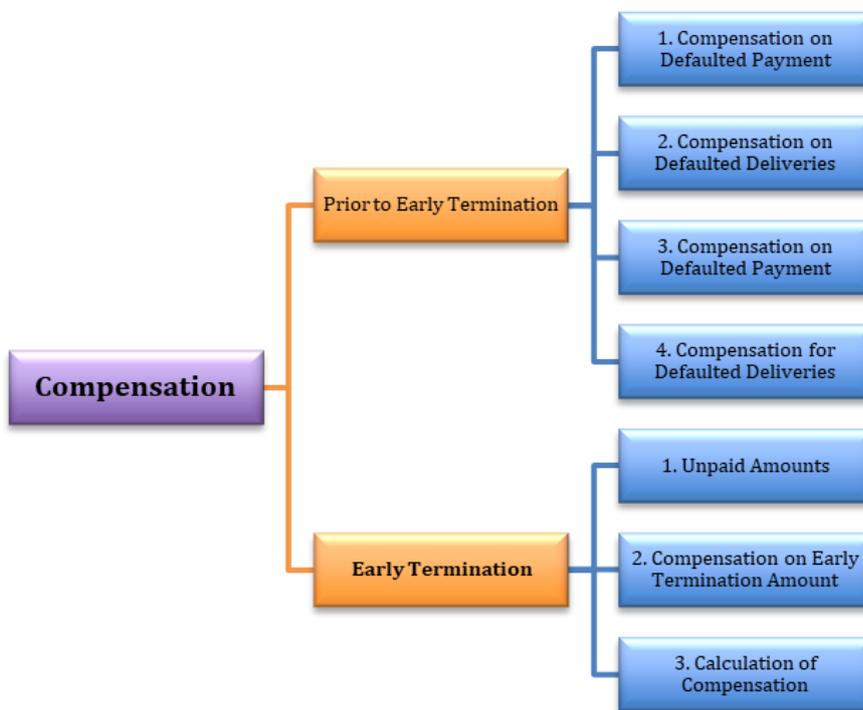


Figure 6.14 The Compensation Structure in the IDMA

6.8 The ISDA/IIFM *Tahawwut* (Hedging) Master Agreement (“TMA”): A Global Master Agreement for Shariah-compliant Hedging Transactions

6.8.1 The Historical Analysis of Constructing the TMA as a Global Standard

Initially, the ISDA/ IIFM *Tahawwut* (Hedging) Master Agreement (“TMA”) released on the 1st March 2010 was developed by industry experts to provide a global standardized framework that contains

the general terms and conditions that parties may agree to adopt under which the parties enter into Shariah-compliant hedging transactions, applying the Shariah contract of *Murabahah* and *Wa'ad* structure. The collaboration between ISDA (International Swaps and Derivatives Association, Inc) and the IIFM (International Islamic Financial Market) resulted in the development of a market standard document to fulfil the business demands and manage the potential business risks of their client. This agreement applies to the global players in dealing with the Shariah compliant derivatives activities, specifically for cross-border transactions. This is the outcome of numerous years of study and exploration of the visibility of engaging mainstream derivatives products with Islamic finance principles.

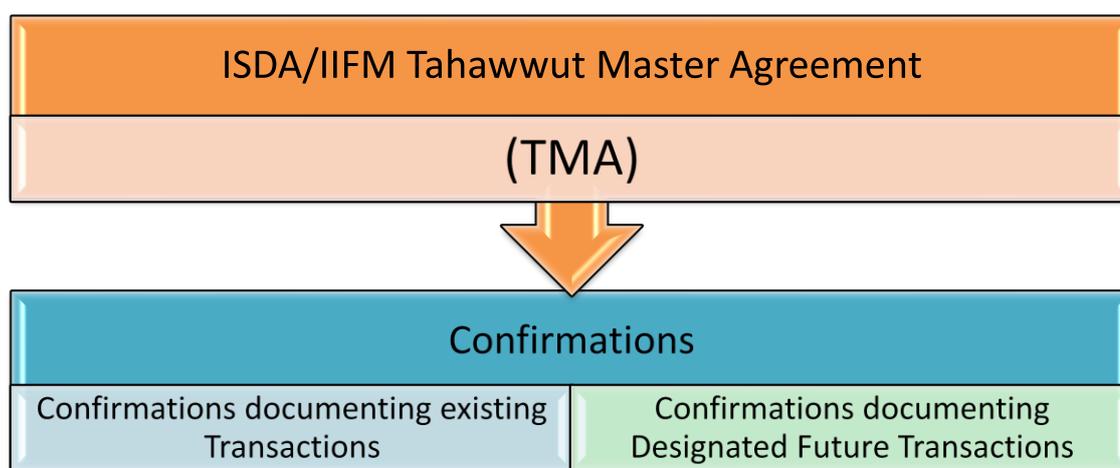


Figure 6.15 General Structure of the ISDA/ IIFM Tahawwut Master Agreement

This kind of engagement was first initiated by the International Islamic Financial Market (IIFM) in working with the invited market players from the Islamic financial industry, the IIFM Board of Directors, the IIFM Executive Committee, and the IIFM Shariah Advisory members. Later, with a strong commitment of the International Swaps and Derivatives Association (ISDA) as a global derivatives organisation, agreed to support the IIFM in designing a legal framework document that provides a globally standardized early termination and closeout mechanism and other legal & Shariah provisions for privately negotiated and is widely accepted by the IFIs and investors universally.

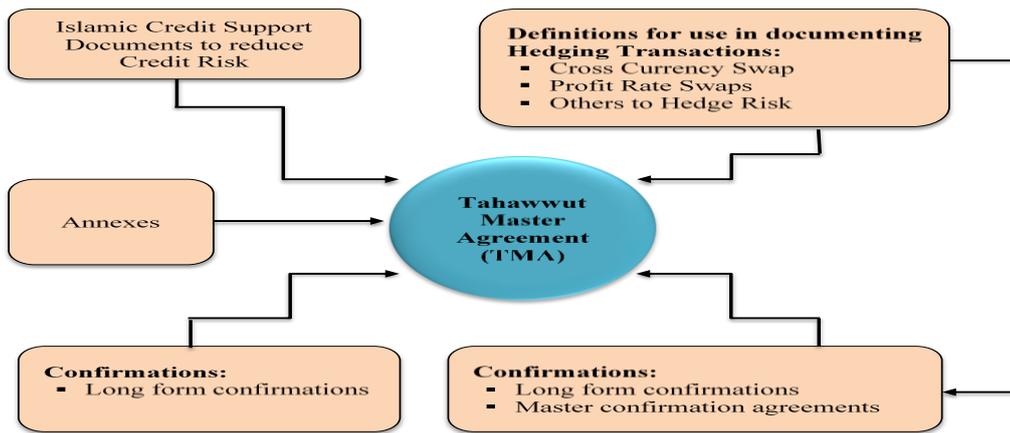


Figure 6.16 ISDA/ IIFM Tahawwut Master Agreement Architecture

The above figure no. 6.17 specifies that the TMA is designed to facilitate the risk management function of IFIs, including providing a legal framework that will enable the Islamic financial industry to address regulatory capital requirements. An executed TMA and the accompanying schedule (in which the parties make certain elections) serve as an umbrella agreement that may govern a series of future sale and purchase transactions but does not give rise to an actual sale and purchase transaction. The parties must enter into additional agreements pursuant to which the parties determine the specific terms of a particular sale and purchase transaction.

According to the ISDA/ IIFM, the *Tahawwut* (hedging) Master Agreement (TMA) is a Master Agreement or framework agreement which sets out terms upon which the parties can subsequently enter into risk management arrangements. Entering into the Master Agreement does not give rise to any transactions. After the parties have entered into the Master Agreement, they may subsequently enter into further arrangements which will be subject to and governed by the Master Agreement. The main reason why the first global standardised documentation for Shariah-compliant Derivatives Transactions was initiated was so that the parties could deal directly with both markets' opportunities either locally in Malaysia or globally around the world.

"It is encouraging that the IIFM and ISDA are launching this ground-breaking initiative, which will not only provide the market with an essential tool for hedging but will also remove the current disadvantage experienced by Shariah-compliant customers versus their conventional competitors. That they can do it in a way that carries the blessings of a regulatory authority which is interested in enhancing industry benchmarks and standards is also really remarkable." (Naveed Khan, managing director, ABC Islamic Bank)

The TMA documentation contemplates two different types of situations: (i) transactions that occur immediately (transactions), which are documented pursuant to confirmations; and (ii) transactions that may occur in the future [(designated future transactions (DFT)), which may be concluded under agreements or undertakings (referred to as DFT terms agreement). Once a DFT is concluded, it

becomes a transaction. The TMA has been drafted so as to be as flexible as possible as to what types of transactions may be concluded pursuant to its terms.

“The Tahawwut Master Agreement (TMA) is considered as the international standard on the Islamic derivatives master agreement and just a few differences not that major, it is not like conventional financing and Islamic financing, those are very different.” (A1)

The TMA was a significant milestone in the development of risk management in Islamic finance, and the development of the template documentation for *Mubadalatul Arbaah* (MA) for Islamic profit rate swaps was a natural step in the development of Islamic hedging instruments. Industry experts developed the MA template to allow the bilateral exchange of profit streams from a fixed rate to a floating rate and vice versa. It aims to provide the industry with access to consequential product documentation under the TMA and assists in managing profit rate risks to enhance cash flows.

The TMA continues to be globally accepted by market players and regulators. However, there is still a need for market harmonisation in combining both Shariah-compliant and business requirements into the financial documentation standard that is internationally acceptable between CFIs counterparts and IFIs counterparts (or vice versa) to be used for cross-border transactions in Shariah-compliant derivatives.

“A commendable example of this concerted effort towards standardisation is the recent global master agreement on Islamic hedging, also known as the Tahawwut agreement, launched in March 2010 by the International Islamic Financial Market (IIFM) and the International Swaps and Derivatives Association (ISDA).” (Muhammad Bin Ibrahim, Former Deputy Governor of the Central Bank of Malaysia)

The above quotation shows that at the beginning of March 2010, the International Islamic Financial Market (IIFM) based in Bahrain and the International Swaps and Derivatives Association (ISDA) joined forces to present the ISDA/IIFM *Tahawwut* Master Agreement (TMA). There are six (6) founding members of IIFM who are signatories to the Agreement responsible for establishing this non-profit infrastructure development organization such as the Islamic Development Bank (IsDB) Group, Central Bank of Bahrain, Brunei Ministry of Finance, Bank Indonesia, Bank Negara Malaysia (represented by LOFSA) and Bank of Sudan. The IIFM introduced the standard Shariah structure based on the commodity Murabahah transaction, which was designed to govern the legal and credit relationship between two parties embarking on a bilateral trading relationship involving Shariah-compliant hedging transactions. This documentation was the second template for an over the counter Shariah-compliant derivative contract after the IDMA as a standard legal framework developed for the first time by the CIMB Group Malaysia to encourage their investors and institutional clients to hedge their business risks.

From the global approach, the IIFM's efforts to promote the standardization of Islamic capital markets documents will be crucial to the continued growth of Islamic capital markets. The *Tahawwut* Master Agreement (TMA), which was developed over several years in conjunction with the International Swaps and Derivatives Association (ISDA), has finally been approved by most of the IIFM members and the Shariah Supervisory Board, and it is likely that the agreement will be increasingly utilized in the future.

Like the ISDA 2002 Master Agreement on which it is based, the TMA functions as an umbrella agreement for a multiproduct framework agreement. The document has been drafted to document commodity Murabahah-based on the Islamic profit-rate swaps and the Islamic cross-currency swaps transactions. In March 2012, the ISDA collaborated again with the IIFM to issue the ISDA/IIFM *Mubadalatul Arbaah* (profit rate swap) product standard, following the TMA and providing an Islamic risk mitigation framework for the industry. In December 2013, the IIFM announced the impending issuance of a legal opinion on English law regarding the implementation of the TMA, as well as different standards and guidelines for Islamic hedging and liquidity management.

"Customers need hedging instruments; if you have a customer who needs to make payment in the future for properties the company bought overseas, they have to hedge their currency" (Aznan Hasan, who sits on several advisory boards, including the one in Malaysia's Central Bank).

Malaysia, the global hub for Shariah-compliant finance, reported stable and consistent growth indicators showing the total market share of the Malaysian commercial banking system increasing to 26.5% in 2018 as compared to USD 24.9% in 2017, according to data compiled by the Islamic Financial Services Industry Stability Report 2019.

"It is very critical that Sukuk holders have access to hedging solutions that would enable them to counter the challenges in a rising interest-rate environment," he said. *"Interest rates seem to have hit rock bottom."* (Hizamuddin Jamalluddin, Bank Islam Malaysia's Assistant General Manager)

Although the *Tahawwut* Master Agreement (TMA) was initially intended for the Islamic Profit Rate Swap, its use could naturally extend to other Islamic currency options and swaps since the agreement only requires minor adjustments to accommodate the cross-currency clauses. Furthermore, by introducing the *Tahawwut* Master Agreement (TMA), market players will be able to speed up the time and cost incurred to execute a swap agreement, which is currently a long and difficult process. Lawyers have to re-draft ISDA master agreements to comply with the Shariah and transaction particulars each time with significant variations in the terms and clauses for each deal. This process usually takes at least a month, if not more, to execute and quite a significant amount in lawyers' fees for both parties.

Despite the introduction of the first consensus-based standard “derivative equivalent” document in Islamic finance, there is much left to be done, and the IIFM has a much more significant role than it is now. At present, all Islamic derivative contracts are privately negotiated or concluded over the counter, which naturally brings into play issues of transparency, standardization, regulation and other risks. It would be valuable for the IIFM to prepare standard requirements for each in terms of structures, documentation (a master agreement, product supplement and confirmations templates) and Shariah-compliant transaction processes.

There are two sets of Master Agreement (MA) templates published, and each set utilizes the Murabahah structure and is *Wa'ad*-based (such that *Wa'ad* differs from those embedded in the TMA, which relate to early termination). The parties to the MA will enter into a series of separate confirmations (DFT terms confirmations) whereby one relates to the fixed profit rate leg of a MA, and the other relates to the floating profit rate leg of a MA. As the *Wa'ad* for each leg needs to be clear, distinct and separate from the other leg of the MA, there are two independent DFT terms confirmations for each leg of the MA. Each set of documentation envisages a single-sale structure or a two-sales structure. When the *Wa'ad* is exercised by a party (seller of assets) on the relevant date, the other party (the buyer of assets) is required to purchase specified assets under a sale and purchase (Murabahah) contract with the seller and execute a Murabahah asset sale confirmation.

The fixed-rate side of the transaction encompasses a transaction in which an asset is sold with a mark-up where instalment payments are equal to the fixed-rate profit payments. On the floating rate side, an asset is sold with a mark-up priced with a spread over a floating rate benchmark where instalments are equal to the floating rate profit payment.

The parties repeat the floating rate contract until maturity using the floating rate benchmark at the time each contract is signed. On both the fixed-rate and floating rates sides, respectively, there is a balloon payment of the principal at maturity, and upon delivery of the relevant asset, the asset is sold at the current market price. Each Murabahah sale entered into between the parties constitutes a transaction under the TMA. It is contemplated that for each specific period (calculation period), a Murabahah sale will be entered into either at the start of the calculation period or at the end of the calculation period. With a single sale structure MA, only one of the *Wa'ad* for the fixed profit rate leg and the floating profit rate leg, respectively, will be exercisable depending on whether the specified condition (the exercise condition) with a calculation period is met.

The exercise condition is determined by establishing whether the profit (the difference between the fixed rate amount and the floating rate amount) to a calculation period is more significant than zero. If the profit under one leg is more significant than zero (i.e. positive), the profit under the

other leg will be less than zero (i.e. negative). Hence only the *Wa'ad* with the positive profit will be exercised, and only one Murabahah sale will be entered between the parties, either concerning the fixed profit rate leg or the floating profit rate leg. Consequently, there will be one asset flow and one cash flow between the parties with each calculation period for the MA.

With a two sales structure MA, for each calculation period, both *wa'ad* in the DFT terms confirmations for the fixed profit rate leg and the floating profit rate leg, respectively, will be exercised by the relevant parties. Accordingly, two Murabahah sales will be entered into in relation to the fixed profit rate leg and the floating profit rate leg, respectively, and there will be two asset flows and two cash flows between the parties in relation to each calculation period for the MA. In a two-sales structure MA, payment obligations may be set off against each other if the Murabahah sales are between the parties in the same currency and are due on the same day. However, the assets being purchased and sold may not be off set and must always be delivered. In highlighting the TMA, the master agreement is to be used with transactions and individual institutions between parties. Each counterparty has to be responsible and credible in ensuring the Shariah compliance aspects of the hedging transactions from their internal approval of Shariah Committee/Shariah Advisory members.

6.8.2 Documentation Architecture under the ISDA/ IIFM Tahawwut Master Agreement (TMA)

In terms of the documentation architecture in the TMA, there are three pillars of the ISDA/ IIFM Tahawwut Master Agreement (such as single agreement, flawed asset & conditionality, and close-out & netting) that are designed to ensure that in the event of a default or termination, the exposures of the parties under all outstanding transactions are accumulated and netted. These pillars of the agreement have been constructed to stop an insolvency practitioner from cherry-picking and enforcing profitable transactions entered into under the TMA and leaving unprofitable transactions as claims in insolvency. However, the TMA is only constructed to cover the commercial relationship between IFIs or CFIs in dealing specifically with Shariah-compliant investment activities, in particular trading Shariah-compliant hedging transactions generally based on the Shariah contract of the Murabahah model.

The TMA established two new transactional classifications. Firstly, it introduced the actual transactions which can be entered into by setting out the relevant terms and conditions (confirmation). Secondly, it introduced undertakings to enter into future agreements called *Designed Future Transactions* or (“DFT”) agreements; the specific arrangements to be entered into

setting out the relevant terms and conditions are called *DFT terms confirmation*. In this agreement, the DFT plays a specific role in some transactions comprising a series of single transactions that, when separately and collectively performed, replicate a conventional derivative transaction. More specifically, it is constructed under Islamic finance principles to provide guidance when the counterparties are trading the Shariah-compliant derivatives transactions strategized using the hedging approach.

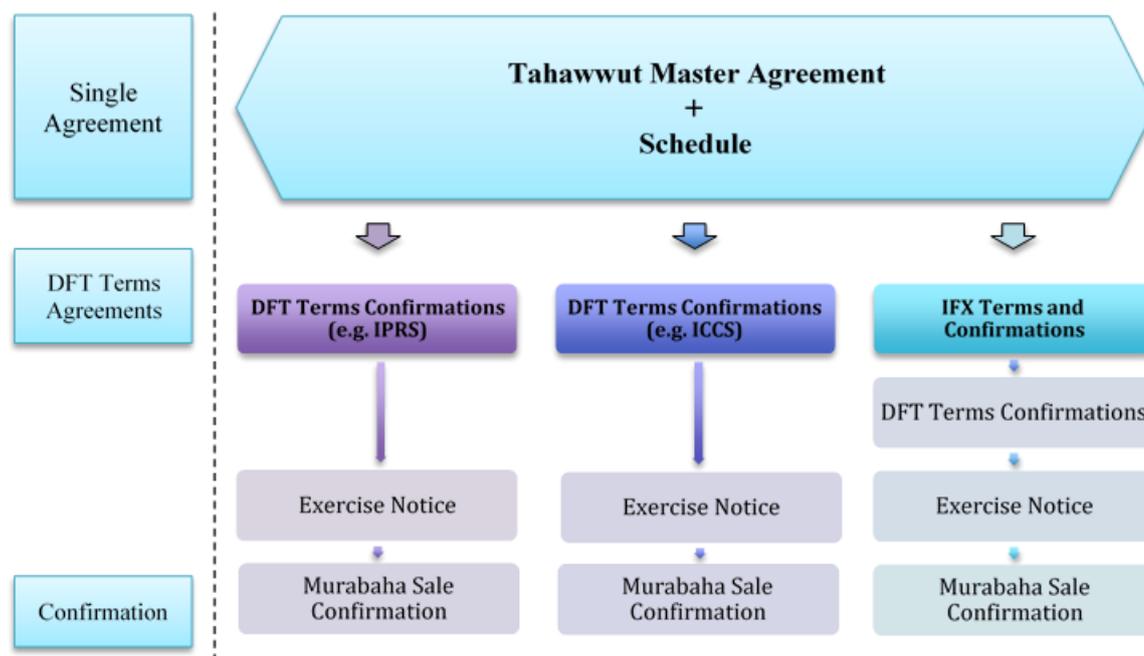


Figure 6.17 Overview of the TMA Documentation Architecture

In addition to the above figure no.6.18, the TMA was constructed to facilitate the risk management function for IFIs worldwide. It is considered the backbone for the Shariah-compliant derivatives instrument and documentation. It has also contributed to an increased understanding of the combination of mainstream derivatives with the Islamic finance principle in dealing with risk management activities and hedging strategy’s IFIs or Islamic investors. Furthermore, the TMA was designed to promote Shariah-compliant hedging activities for IFIs or CFIs with the same objective of a hedging strategy in dealing with market uncertainty, and the documentation is drafting to be accepted globally (Alvi, 2016).

6.8.3 The Modified Shariah Concept and Practices of SCD in the TMA

In structuring Shariah-compliant derivatives in the TMA, the ISDA and the IIFM provided a basis hedging mechanism to hedge the market risks that are common in Shariah-compliant transactions. Shariah-compliant investment activities are controlled by restrictions on how transactions can be carried out and the purposes for which they are entered into. In particular, IFIs may not involve

"*riba*" (the charging of interest), "*gharar*" (unavoidable uncertainty) or "*maysir*" (gambling or speculation). These restrictions have led to a number of amendments in the Tahawwut Master Agreement compared to the ISDA 2002 Master Agreement.

Furthermore, the TMA strictly removes provisions for the payment of interest. However, according to K & L Gates (2010), it is unclear how the time value of money is highlighted in conditions deliberated by the agreement where amounts may be delayed. These issues related to the removal of interest will need further examination by parties and in-house counsel to determine whether the economics of a transaction will be distorted on early termination or otherwise.

In addition, they also highlighted points of uncertainty or ambiguity related to netting of transactions and Relevant Index Amounts under DFT, since the netting of future transactions is not covered (except in a footnote that contemplates that parties may provide for similar netting in those agreements); the replacement of "transfer" with "redesignation" in the TMA may create ambiguity as to whether "redesignation of rights and obligations" implies the ability of the affected party to change substantive rights in connection with changing the obligor office; the replacement of the definition of closeout amount that appears in the 2002 Master Agreement with a very brief definition; the removal of credit-worthiness in determining quotations, which could distort the economics of a transaction on early termination or it may remain to be seen how the TMA will synchronise with other forms to the level that counterparties may hedge their exposure by entering into master agreements with differing terms.

Under the Shariah structure mechanism, the Shariah-compliant derivatives must accurately and strictly be linked to underlying transactions, and it is clearly stipulated that these hedging tools are not purposely used for making money from money which is prohibited in Islamic finance principles. In dealing with the Tahawwut agreement, each party releases an undertaking to enter into a Shariah contract in the future for the sale of assets following the title of the early expiry date. The party to whom the relevant index amount is due may exercise the *wa'ad* (promise) given in its favour and sell pre-agreed assets in exchange for the cost price of such assets and the appropriate index amount. If it has been issued in breach of the *wa'ad* (promise), a party fails to purchase the assets under a *Musawama*, and liquidated damages are determined and payable.

Furthermore, the IIFM Shariah Advisory panel discussed and concluded the following guidelines on the subject of the acceptability of SCD transactions; 1.) the SCD transactions should be engaged with the actual business risks that are used as a hedging strategy in dealing between IFIs and its corporate client based on the business pressures of mitigating market instability and risks unpredictability, 2.) the SCD should not be engaged with the speculation business activities. In a

sense that the actual settlements of assets and payments must take place and be precisely recorded in the trading book of an IFI. Then, the cash settlement should relate to actual transactions which involve a deliverable asset, 3.) the underlying asset of SCD transactions should be accepted by the Islamic Finance Stakeholders or, on the other hand, must be halal; 4.) the SCD transactions should be free from any interest-based system or to be chargeable from end to end transactions.

The Shariah-compliant derivatives are structured implementing the combination of a promise (*wa'ad*), in the form of purchase undertakings together with the traditional Murabahah sale agreement. In such a case, the purchase undertakings act as a promise to buy on specific conditions of agreed specified commodities, the detailed data for a specific price to enter into Murabahah sale agreement. At the beginning of this transaction, each party gives the other a purchase undertaking setting out the conditions of trade.

6.9 SCD Transaction Process Under the TMA Approach

The following are the agency arrangements outside of the Tahawwut Master Agreement as shown below that the corporate client needs to make a payment to an IFI as a hedge provider in facilitating the Shariah-compliant derivatives transactions between two parties as follows:

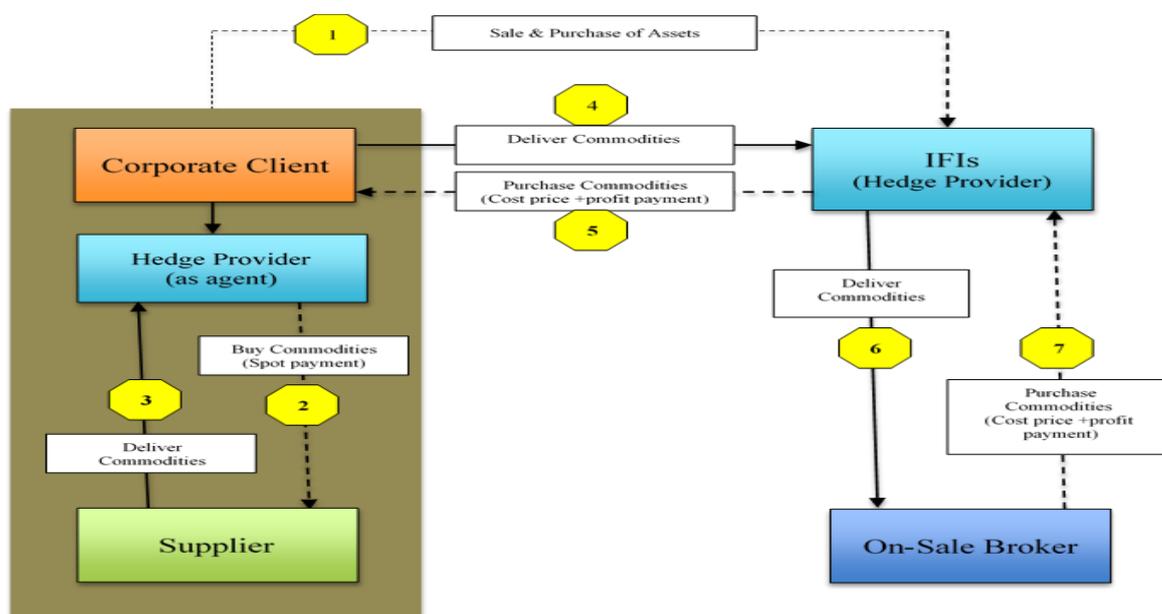


Figure 6.18 Buying Agency – Pre-Purchase of Assets

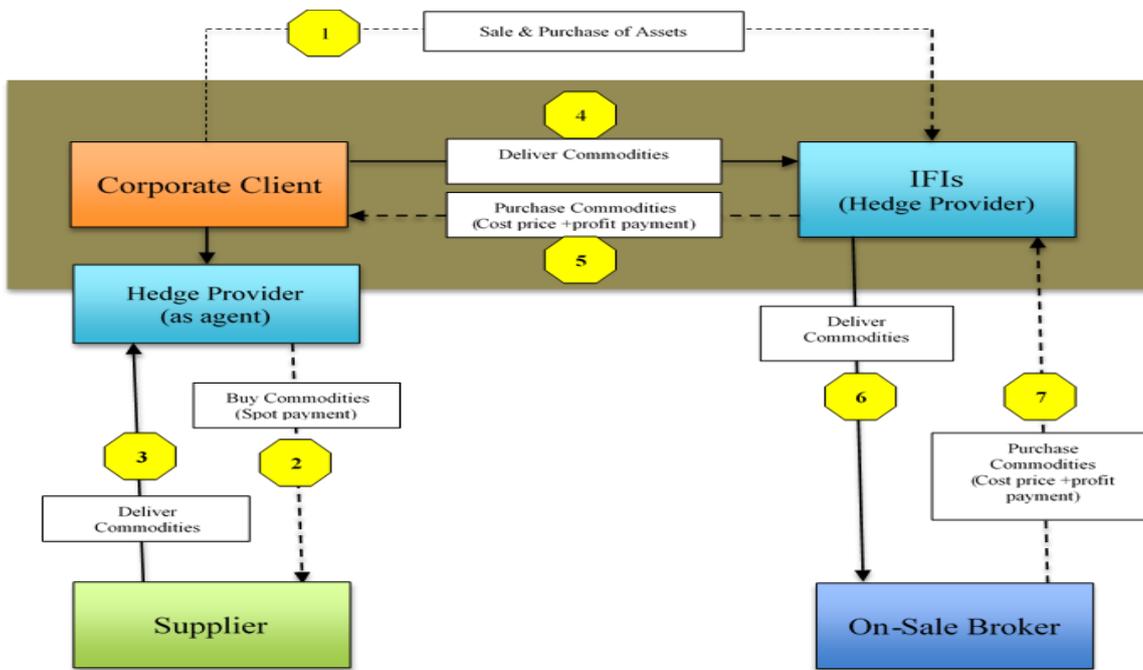


Figure 6.19 Principal to Principal – Making the Swap Payment

The above figure 6.20 explains how the Shariah derivatives transaction are constructed based on the Islamic cross currency swap instruments under the TMA through the exercise of a *wa'ad* (promise) under the DFT terms agreement to the relevant hedging trade as showing that the corporate client strategizes to hedge their business needs is required to make a payment to an IFIs as a hedge provider.

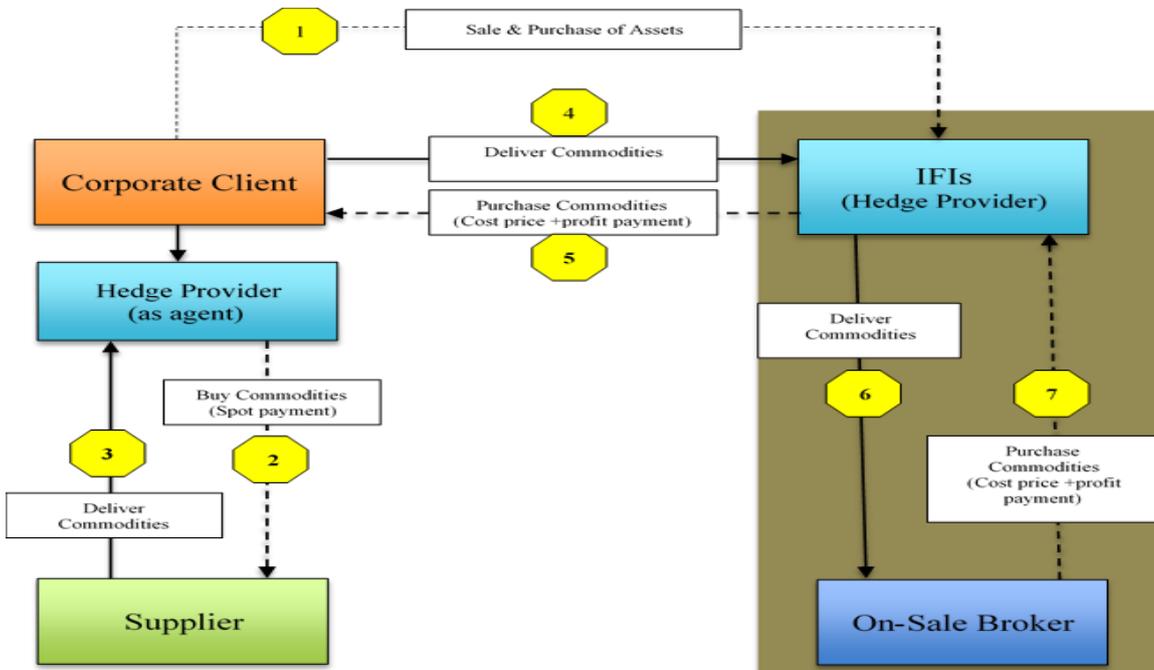


Figure 6.20 On Sale Agency – On Sale of Assets

The above figure 6.20 explains the agency arrangements outside of the TMA as shown below that the corporate client needs to make a payment to an IFI as a hedge provider in facilitating the Shariah compliant derivatives transactions between two parties.

6.10 The Comparison between IDMA and TMA

The following is the comparison between the Islamic Derivatives Master Agreement (IDMA) and TMA as mentioned in Table 6.2 below:

Table 6.2 The Comparison between IDMA and TMA

| Feature | Islamic Derivatives Master Agreement (IDMA) | Tahawwut Master Agreement (TMA) |
|-----------------------|---|---|
| Purpose | Protecting the business risks | Protecting the actual hedging risks. |
| Business Tactic | More attractive | Less attractive |
| Product Structure | Shariah-compliant based approach | Shariah-based approach |
| Islamic Contract | <ul style="list-style-type: none"> Commodity Murabahah Contract Wa'ad (promise) | <ul style="list-style-type: none"> Musawamah Contract Wa'ad (promise) |
| Document Architecture | Same architecture as ISDA 2002 Master Agreement | New architecture with the Middle East flavour |
| Practical Application | Local (Malaysian) approach | International (Global) approach |
| Legal Framework | Malaysian Law | English Law |
| Initiator/ Originator | Malaysian Regulator and Local Islamic Bank in the country (CIMB Bank Group) together with the International Swap and Derivative Association (ISDA). | ISDA and IIFM (International Islamic financial market) |

"IDMA is more attractive in terms of business approach or equivalent to ISDA whereby IDMA is using the shariah compliant approach. However, moving forward, we are using the new TMA that will be modified under Malaysian content. So, they can charge the principal amount. This process is to follow the global trend that has been proposed by the IIFM in Bahrain." (A2)

From the Malaysian context as stated in the above Table 6.2, there is a business demand to modify the current IDMA to be broader in applicability to global environments similar to the one adopted

by several IFIs in Muslim Countries, the TMA. This current IDMA Platform does not apply to cross-border transactions within the IFIs around the globe in dealing with Islamic business activities. However, the Malaysian market players desire local features to be more adopted and recognised in the new Master Agreement.

In discussion with other participants, it was noted that they are targeting for the new TMA to be ready using Malaysian content by this year (2020) and for it to be implemented in the Malaysian market. As stated earlier, the first process is translating and converting the ISDA 2002 into the IDMA with the combination of Islamic finance principles by removing the prohibited elements based on the Shariah principles.

6.11 The Outcome of Conventional Derivative Products Modification of IFIs in the Malaysian Financial Market

“...we have offered the clients a variety of types of hedging such as profit rate hedging, commodity hedging, and cross currency swap hedging. Then, we have moved further to enhance the return for the long-term investor whereby we can do based on the Islamic structured product with the tenor of 2-5 years, and during that time, the demand from non-Muslim investors are very great...” (A2)

In Malaysia, several common Shariah-compliant financing structures are, in fact, forms of derivatives. For instance, a Salam contract — under which one party makes payment upfront for the delivery of specified goods in the future — is a type of forwarding agreement. Similarly, a Sukuk issuance that is structured around a Salam contract can also be seen as similar to a structured note with an embedded derivative. Additionally, several Islamic derivatives that closely resemble conventional interest rate swaps have been developed, such as profit rate swaps and Ijarah rental rate swaps, allowing Islamic institutions to exchange cash flows related to specific assets with a different basis of calculation. While these agreements require reference to specific assets (which makes them distinct from and more complex than conventional swaps), they serve a similar risk management purpose for the parties.

“...In theory, the potential market size is several billion dollars per annum of structured investment products and hedging instruments, but we are barely scratching the surface today.” (According to a banker at a Western bank)

It is unquestionably that derivatives if adequately regulated, have an essential role to play. The question can be found at the end Financial Times article about Sukuk derivatives. The real reason has nothing to do with risk management but much to do with profit management for Western investment banks.

“There are conflicting opinions on the acceptability of the profit generated by reversing the derivative positions. Doubts have also been raised on structuring products such as Islamic Profit Rate Swaps (IPRS) and Islamic Cross-Currency Swaps (ICCS), which use a combination of various Shariah principles such as Murabahah, wa’ad etc. Industry professionals maintain that the assessment of these instruments by scholars is based purely on juridical grounds rather than from a risk management perspective. Experts recommend that efforts must go towards harmonizing Shariah rules with modern risk management techniques.” (Syed Siddiq Ahmed, Islamic Finance News, 23/10/2013, Volume 10, Issue 42).

6.11.1 Islamic Profit Rate Swap (IPRS)

The IPRS was first structured by the CIMB Islamic (Commerce International Merchant Bankers) and approved by the National Shariah Advisory Council of BNM. Bacha (2007) admits that the Islamic profit rate swap is a mechanism structured to allow the bilateral exchange of profit streams using two parallel and back-to-back Islamic markets up sale transactions.

Allen & Overy (2008) assume that the IPRS was introduced to assist in the management of profit rate risks, thus enhancing cash flows. The fundamental concept of Islamic profit rate swap involves the exchange of profit rates between two parties which is based on the floating rate receiver and fixed-rate receiver. The floating rate is to protect the party from an increase in profit rate (when the party has floating obligations while receiving fixed returns). Another concept is the fixed-rate receiver, designed to protect the party from a reduction in profit rate (when the party has set returns).

Under the IPRS structure, the counterparty/ customer will sell a pool of commodities to the Islamic Bank (different commodities) on deferred based on a fixed rate. This stage is known as the 1st Leg. At the same time, the Islamic Bank will sell a pool of a commodity to the Customer on deferred based on a floating rate, normally benchmarked against LIBOR or KLIBOR. This stage is known as the 2nd Leg. Periodically, both parties, i.e. the Islamic Bank and the Customer, will pay an instalment amount to each other. The brief structure is illustrated below:

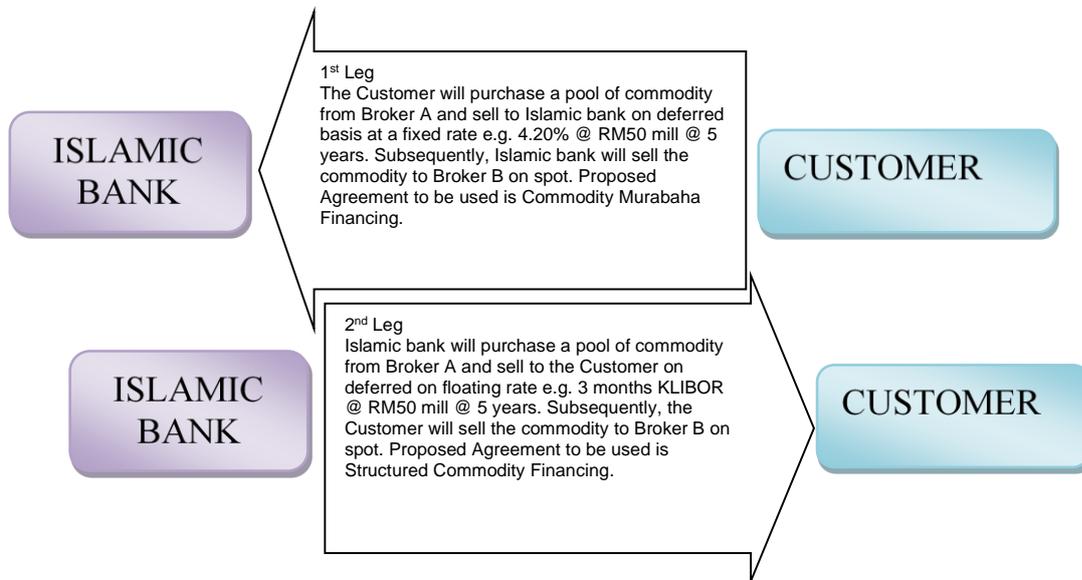


Figure 6.21 General of Islamic Profit Rate Swap (IPRS) Structure

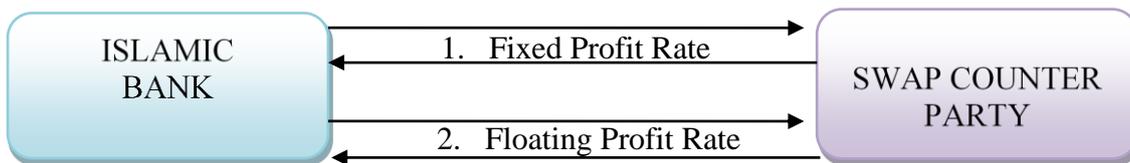


Figure 6.22 Islamic Profit Rate Swap (Fixed Rate and Floating Rate)

Based on Figure 6.22 above, the Islamic Bank sells assets at the spot (notional price) to the Islamic SWAP Counter Party. The Islamic SWAP counterparty will then sell back the assets with the deferred price (notional price plus fixed profit rate). The Islamic SWAP counterparty now sells the assets at spot (notional) price. Islamic Bank will then sell back the assets at a deferred price but with the price: notional + floating profit rate. The results are that the Islamic bank becomes a fixed profit payer, and the counterparty becomes a floating profit payer.

6.11.2 Islamic Cross Currency Swap (ICCS)

The ICCS is an agreement between two parties to exchange a series of profit or principal payments denominated in one currency for another series of profit or payments denominated in another currency, based on a notional principal amount, over an agreed period. The exchanged profits can be fixed with floating rates, fixed with fixed rates and event float with floating rates. This financial instrument also can assist the customer in the management of profit rates, currency risk and also cash flow.

Nelson (2006) believes that the Islamic Cross Currency Swap is a trailblazer combining the benefits of managing currency risks and differential rate returns with Shariah Complaint principles. He also mentions that the Islamic financial instrument is an important part of the growth and evolution of Islamic banking in Malaysia, the innovation of increasing trading volume and liquidity in order to reduce transaction costs and risk in the Islamic capital market. There are two benefits of this product: (1.) a defensive and conservative hedging strategy for hedgers who wish to protect against both the FX and profit rate risks. (2.) Can be customized to meet customer's requirements:

- a. A customer's floating-rate financing in one currency can be converted to a floating or fixed-rate obligation in a different currency.
- b. It can also be used to convert fixed-rate financing in one currency into a floating or fixed-rate obligation in a different currency.

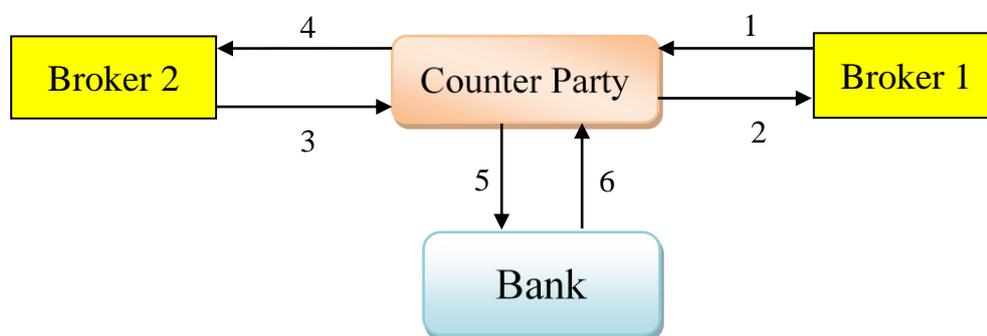


Figure 6.23 Islamic Cross-Currency Swap

According to the above figure 6.23, firstly, Broker 1 buys the commodity spot using a floating rate. Secondly, the Bank sells on the spot using a fixed rate. Thirdly, Broker 2 sells the commodity on the spot using a floating rate. Fourthly, the Counter Party sells on the spot using a floating rate. Fifthly, the Counterparty sells the commodity to the Bank using a fixed rate, deferred at principal plus fixed profit rate. Lastly, the Counterparty sells the commodity to the Bank using a fixed rate, deferred at principal plus fixed profit rate.

6.11.3 Islamic Foreign Exchange Options

Conventionally, the Foreign Exchange Swap is a financial derivatives transaction whereby two parties exchange agreed on the amounts of two currencies as a spot transaction, simultaneously agreeing to unwind the exchange at a future date, based on a rule that reflects both interest and principal payments (Bartolin, 2002).

According to Dusuki (2009), the Islamic Foreign Exchange Swap (IFXS) is a contract between two parties created to minimize market participants' exposure to the market currency exchange rate, which is unpredictable. It is offered to hedge against the risk of fluctuation in currency exchange rate risk. This Islamic treasury instrument is structured to deal specifically as a hedging mechanism in the Islamic capital market. It is also a hybrid contract whereby its objective to the customer is similar to that of a conventional FX swap structure.

From an Islamic perspective, the problem with the conventional FX Swap is when the parties involved want to exchange currency sometime in future, but there is already a fixed rate which is fixed today, while the contract is preserved today. This concept contradicts the concept of *bay' al-Sarf* (the exchange of currency). In the concept of *bay' al-Sarf*, whereby two parties agreed to exchange with different currencies, which are to be transacted on a spot basis. Indeed, it is prohibited to enter into forwarding currency contracts whereby the execution of a deferred contract in which the concurrent possession of both the counter values by both parties does not take place (Dusuki, 2009: 7).

Furthermore, with reference to Dusuki (2009: 8), the Islamic FX Swap is designed to comply with Shariah rules and principles while achieving the same objective as a conventional FX Swap instrument which is to protect against the fluctuation in currency exchange rate risk. In addition, this instrument has been structured on the contract of Tawarruq. The example is shown as follows:

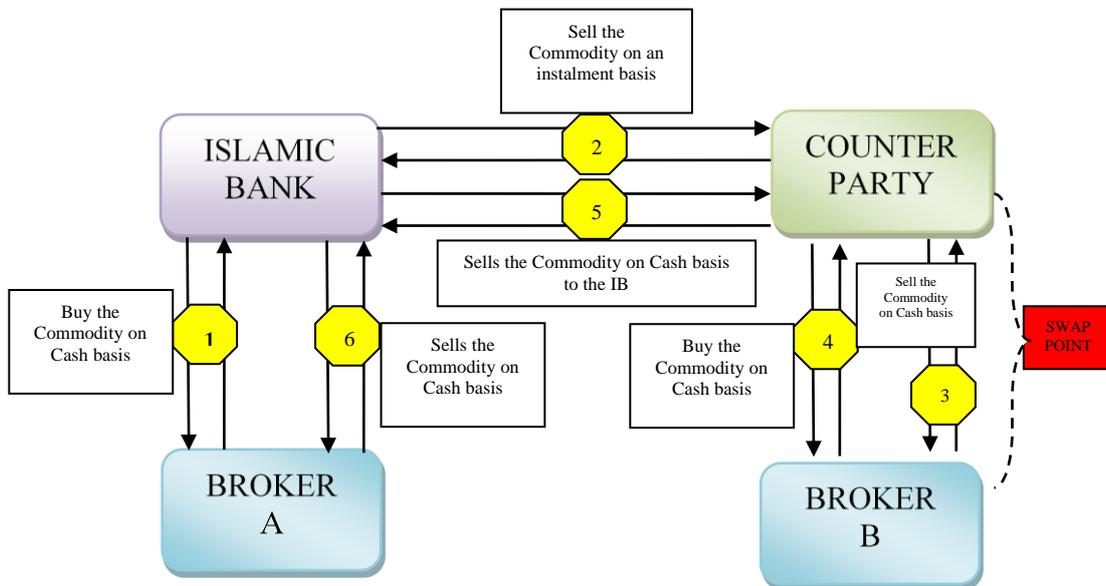


Figure 6.24 Islamic FX Swap Based on the Tawarruq Concept

As explained in the above figure 6.24, firstly, the Islamic Bank has the RM (Malaysian Ringgit) will buy the commodity from Broker A worth RM 50 Million on a cash basis. Secondly, the Islamic Bank will sell the commodity to the Bank (based on the Forward rate) at a price of RM 50 Million plus profit (1 Million) by deferred payment. This stage is based on commodity Murabahah contract. Thirdly, the counterparty sells that commodity to Broker B by Cash payment of RM 50 Million. Fourthly, the Counter Parties need USD. Then, the counterparty charges/ swaps RM 50 Million to USD15,153,811.1835 based on the spot rate. (The Exchange Rate of 0.3031 on 17th March 2010). Here is FX (Foreign Exchange) Swap. Fifthly, the Counter Party now sells the commodity worth USD15,153,811.1835 to the Islamic Bank at the price plus profit on a Credit basis. The payment will be made after a year. Lastly, the Islamic Bank sells the commodity to Broker A and gets USD 15,153,811.1835.

6.11.4 Islamic Foreign Exchange (FX) Forwards

The Islamic Foreign Exchange Forwards is a series of FX hedging instruments which are zero-premium to enter and provide elements of flexibility in respect of hedging characteristics that can be offered for both local and/or global Islamic finance market participants in providing clients with access to a diverse set of hedging tools in mitigating risk exposures from Foreign Exchange, as compared to merely relying on plain-vanilla outright forward and call & put options.

This product is offered to the specific target market with the following customers: a.) *Corporations*: the FX hedging instrument can be utilised to hedge foreign currency exposures; b.) *Islamic Bond Issuer*: the FX hedging product can be incorporated in issuances to mitigate any rising FX exposures, c.) *Islamic Fund Managers*; the FX hedging product can be used in structured product offerings to add both FX currency exposures, d.) *IFIs*: the FX hedging product can be used within IFIs to hedge any FX currency from transactions with their respective customers, e.) *Islamic Insurance Providers*: the FX hedging product can be created a high demand for Islamic Insurance Providers in hedging the subsequent FX currency exposures, f.) *Governmental agencies*: the product can be applied to hedge FX currency exposures such as International scholarship, procurements, and other business activities.

Furthermore, the Islamic FX forward can be divided into two types of hedging structuring groups: the Protection Structures that can be offered total protection with some upside, such as Shariah-compliant Range Forward and Shariah-compliant Participating Forward. *Second*, the Dynamic Structures that can be provided with a higher upside upfront include Shariah-compliant Enhanced Forward and Shariah-compliant Double Win Range Forward. The above two types of the group can

be illustrated as a specific example for each transaction in referring to the perspective of the customer as an Exporter.

6.12 Conclusion

In conclusion, as a result of the business needs of Shariah-compliant derivatives instruments, business players and regulators recognize the urgency of hedging against market risk, foreign exchange risk and profit rate risk in day-to-day activities. On the other hand, the main purpose of Shariah-compliant derivatives should be to meet business demands, improve investments' performance, and increase their impact on global financial markets. In practice, the main benefit is that Shariah-compliant derivatives work to mitigate risks faced by IFIs when interacting with investors/institutional clients in Islamic business activities, so they have been introduced as a hedging strategy.

Chapter 7 Managing the Challenges of Using the Shariah Compliant Derivatives as a Hedging Strategy on IFIs: Business Demands vis-à-vis Ethical Identity

7.1 Introduction

The previous chapters (Chapters 5 and 6) and this chapter provide analysis and the findings of the primary data collected through semi-structured interviews that have been conducted with the key market players within four (4) Global Islamic financial institutions and the regulator in Malaysia. As the structured interview method is qualitative in nature, it involves analysing and interpreting the interviewees' answers to their precise meaning and experiences. The previous chapters (Chapters 5 and 6) and this chapter will combine the data findings and discussions to be more engaging with the primary data and any other sources. The aim is to discover if the reactions and responses of the interviewees can contribute to the basic objective of finding relevant, authentic, reliable and satisfactory answers to the main research questions and their sub-questions.

This chapter provides a more in-depth insight into the main research questions and their sub-questions, as detailed in Chapter 1, section 1.3. It also focuses on finding more insights into issues that emerged from the analysis of the data collected in the interview method in relation to the theoretical framework of organizational identity theory as a lens to frame the discussion in this chapter. Additionally, it articulates how this theoretical framework has been used to explore how IFIs impact the creation and designing of innovative derivative instruments as hedging strategies in harmony with an ethical outlook from the Islamic finance perspective. In other words, this chapter is blended between the data findings and discussions.

This chapter discusses the business demands of Shariah compliant hedging instruments and consequently brings the critical intention from the market players and regulators to construct and endorse the urgency of the need to hedge against market risk, foreign exchange risk and profit rate risk in day-to-day business activities. On the other hand, IFIs are concerned with the necessity to maintain their ethical identity. Hence, the Islamic Profit Rate Swap (IPRS), Islamic Cross Currency Swap (ICCS) and Islamic Foreign Exchange Swap (IFXS) are practically observed as the most common Shariah compliant instruments that are being discussed between the market players and regulators. The researcher has tried to explore how the current Shariah-compliant derivatives instruments can

be blended between a hedging model and investment activities as a way to generate higher yields and effectively mitigate the potential business risks that the IFIs may face.

Furthermore, IFIs make Shariah compliant derivative instruments that have led to Shariah compliant structured products being seen as attractive as CFIs variants. Therefore, the IFIs have highlighted the importance of Islamic financial engineering in Shariah compliant derivatives in combining hedging strategy and investment elements that are blended into a more attractive as a result of business model innovation in fulfilling the business demands and stakeholder's needs in customising CFI instruments in accordance with the Shariah principles.

7.2 Shariah Compliant Derivatives as a Hedging Strategy on IFIs

From Islamic finance terminology, hedging is defined by Ibn Manzur (2002) in the Arabic language as *Tahawwut*, which means protection. The technical definition of the word *Tahawwut* in banking and finance is adopting processes and arrangements and selecting contractual formats that ensure the limitation of risks to a minimum while maintaining good potential returns on investment (Elgari, 2010). This is relevant in this context because the hedging strategy is seen as a genuine method to protect and minimise loss from any potential business, financial, or operational risks that constantly occur in the financial industry (Obiyathulla, 2000).

In IFIs, the hedging strategy involves the usage of Shariah complaint derivatives instruments in unlocking the cross-border transactions that effectively deal with foreign exchange currency transactions. Nevertheless, fluctuations in foreign exchange currency rates can generate IFI losses and gains for those implicated. Therefore, the ability to exchange currencies at a lower cost is a critical business necessity in ensuring such trading optimizes gains. Thus, the ability to reduce any exposure to foreign currency exchange risks is also vital in the view that international business transactions routinely take time in payments and invoice submission. Therefore, IFIs use the Shariah compliant derivatives as a hedging strategy to overcome one of the main risks, which is the foreign exchange rate risk. This view is articulated by the interviewee below:

“Derivatives are based on the currencies, so which currencies have the derivatives market. Then we list all the countries and promote them by using hedging. The West African country is eligible to do the derivatives in order to increase the liquidity in the derivatives market, which has to be a lot of speculative traits. The market is liquid when there are many open and sold positions, but we cannot do that because it is not Shariah. It is indeed difficult to promote something new. That is why we have to go to the basics. We are not focusing on promoting derivatives products, but we naturally bring the Islamic system to the business.” (F2)

The significance of managing the challenges of IFIs using the Shariah-compliant Derivatives as a hedging strategy and its implementations has been noted by some respondents, particularly in the market players of IFIs.

“It is important first to ensure that there is a valid underlying instrument or investment that is required to be hedged. So that will ensure that there is a genuine need for this kind of instrument. Secondly, we also need to put in place a policy to ensure that this tool or instrument will only be used for hedging purposes and not for speculation. For example, in EFP, we have a policy saying that we cannot hedge more than 100% of the principle or the value of the instrument. That helps to ensure that the instrument would only be used for hedging and not to take a position as a speculative instrument.” (F8)

It can be assumed that there is certainty surrounding the discussion on the business demands in the Islamic financial industry. For the market players, the majority articulated concern for the existing capacity of IFIs in dealing with the Islamic finance stakeholders in providing Shariah compliant derivatives as a hedging strategy in the Islamic financial industry. According to the interviewee, this is in accordance with his statement:

“At that time, suddenly, the Senegal Sukuk and other Sukuk were issued. We were asked to invest in it, but they are all in Euros. We did not have Euro borrowing at that time. Then, I called the Standard Chartered Bank, saying they would listen today. I would buy 15 million Sukuk, which they will bear every six months for seven years. So, they will pay me 3 million euros. Then, I called the Standard Chartered Bank, saying I wanted to buy a 15 million euros swap on the spot, and we bought it. Then, we said now we wanted to sell 14 forwards, 3 million each, one per six months, one per hedging month, and other months. So, we get the second path by using this product combination.” (F2)

From the CFI's point of view, there are differing interpretations of hedging strategy and approach. Hedging is defined as a characteristic of actions taken to reduce risks (Gastinean, Smith, & Todd, 2001, p.3). According to Abu Bakar (2010), the profit from hedging operations is essential as a part of business activities in the reason that the profits made will offset any future price fluctuations. Although the core intention of hedging strategy is to decrease the business risks of any losses, issues arise regarding whether the pure concept of hedging strategy can be used to avoid business risks (Elgari, 2010), eliminate business risks (Abu Bakar, 2010), or gains of business opportunity (Rosalan, 1993), or it is purely to reduce business risks only (al-Suwailem, 2006). Several scholars mention the use of a hedging strategy as a business activity of obtaining an insurance policy in order to protect any type of business losses from unexpected risks (Toporowski, 2000; Clark & Gosh, 2004; Kolb & Overdahl, 2006).

Furthermore, Culp (2004) mentions clearly that the risk management and hedging strategy are reasonably engaged with consolidation, retention, reduction, and risk transfer with concentration that can bring together business activities. He also mentions that the mitigation of potential risks in business activities is an essential factor in order to be more competitive in maximizing profits for

its management and shareholders of the organization (Culp, 2004). Hence, in meeting the core business demands of an organisation, in actuality, there are significant implications in business environments to deal with any potential business risk exposures.

7.3 Managing the Challenges in Implementing SCD in IFIs

“Shariah-Compliant hedging instruments, tools and strategies not only align with the operationalisation of a number of Islamic contracts for the purpose of minimising risks but also are in sync with one of the essentials of the Shariah, which is to protect wealth.” (The Secretary-General of the IFSB, Dr Bello Lawal Danbatta)

The above quotation expressly highlights that these financial instruments are essentially seen as a Shariah-compliant alternative to the conventional derivatives instruments, specifically for non-speculative risk management strategy on the Islamic finance business activities either from insiders (IFIs) or outsiders (Islamic investors). It is essential for the insider and outsiders within the Islamic finance ecosystem to fully understand how to manage the challenges in implementing Shariah compliant derivatives as their risk management strategy.

7.3.1 The discrepancy in Shariah Jurisdiction

Shariah-compliant derivatives are seen as a part of risk management tools in Islamic finance. This financial instrument has been debated by Shariah Scholars locally and also globally. The opponents believe that these products contain the element of *Gharar* (uncertainty) and hence considered prohibited in Islamic finance. Conversely, the proponents have another perception and outlook which allows the product to be implemented in the financial market. They considered the product in compliant with Shariah principles based on the concept of *Tahawwut* (hedging) mechanism of the asset only but strictly prohibited for speculation and exploitation to get more profit.

“Most of shariah scholars need to have a wider understanding use of Islamic derivatives. Just imagine if the Islamic bank does not have the hedging tools, so it going to be the Islamic bank is the worst option. Therefore, the shariah scholars and other stakeholders need to understand that kind of situation. Being Shariah-compliant is more important. I think we need to balance the risk.” (B2)

Although Shariah scholars in general agree on the permissibility of hedging activities, they differ in terms of opinions with regards to the Shariah concept, structure and process flow being used and implemented. Hence, there is a need for unified, standardized and comprehensive guidelines as a reference for all Shariah advisory boards and the guidelines will take into consideration all restrictions and jurisdictions. To do this, Shariah scholars across the globe should interact

frequently with each other to understand the rationale of a given Shariah view. We believe standardization of the practices will further strengthen the Islamic finance industry.

"We Muslims must be unified for good, not fight anyone. The main impairment is to increase the shariah derivatives. First of all, the nonrelated between scholars and jurisdiction. Number two is the absence of unified Shariah multi-jurisdiction. Number three is dual taxation. Number four is a different accounting procedure for accounting instruments. Number five is currency-wise liquidity in different countries. Currencies in Islamic countries are not all developed."

In fact, it has been observed that there has been much interpretation of Shariah's views on what can or cannot be hedged. Some enlightened scholars have devised conventional copycat products and say it can be done, while others are more conservative. Therefore, regarding hedging products, these can also be used to speculate.

From the Shariah perspective, it is necessary to protect wealth (*Hizf al-Maal*) and mitigate risks. There is nothing that states the risk cannot be mitigated under Shariah principles. As with a number of other instruments, Shariah scholars are split on the Islamic legitimacy of derivatives. Some believe that these products are permissible instruments to hedge risks, but others label them as speculative transactions, which Shariah law forbids. These products are not produced to encourage a replication of conventional banking.

"So long as it is not as speculative like that of the US subprime, where there are no fundamentals, to the best of your abilities, you can make sure that whatever money entrusted to you by your depositors works in accordance to what they want to achieve, which is a profit." (Jamelah, former managing director of RHB Islamic Bank)

From these perspectives, it is clear that there are different Shariah interpretations of risk mitigation. However, it must be pointed out that the purpose is to draw clients' attention to products that are different from what is used in conventional banks. Hence, the customer should be given a better rate of return or at least equal returns than what they receive from conventional banks (Wong & Eng, 2018).

There have been initiatives to develop common Shariah standards by organizations like the International Islamic Financial Market (IIFM) in Bahrain which aim to establish, develop and promote the Islamic financial market. Greater standardization could reduce the potential for Shariah 'arbitrage' as well as making it easier for Islamic bankers and investors to understand the Islamic financial market better. It is essential to appreciate that the basis on which an Islamic firm claims to be Shariah-compliant is communicated appropriately to the consumer. In addition, it is essential to ensure that contracts using derivatives instruments are structured to comply with Shariah principles. Hence, the hedging tools will be Shariah-compliant and have the same economic effect as conventional ones, but how they are entered into will be different.

7.3.2 Differences in the Legal Framework Between Three Cross-border Jurisdictions

Most of the master agreements for Islamic hedging instruments in the market are bilateral agreements produced in-house, requiring scrutiny of the contents before signing. At times, the process can be tedious, so in the end, both parties of the contract lose excitement and decide to abort the effort halfway. To avoid Islamic finance institutions from falling behind in competitiveness compared to their conventional counterparts, on the 1st of March 2010, the International Islamic Financial Market (IIFM) took the initiative to collaborate with the ISDA to develop a standardized Islamic hedging master agreement called the ISDA-IIFM *Tahawwut* Master Agreement (TMA). The TMA provides a template and framework for the expansion of Islamic hedging activity in the Middle East, South Asia, and many regions across the globe. To date, the TMA covers a variety of Islamic structures concentrating on forwards and swaps.

In 2002, Malaysia introduced the first global Islamic Derivatives Master Agreement (IDMA), documenting Islamic derivatives transactions in steps to develop Islamic hedging products that are used to mitigate risks and the protection of wealth. Based on these financial instruments, the IDMA is regarded as an essential mechanism for future linkages between Islamic financial markets and corporate clients, offering Islamic financial market instruments.

As a practitioner Islamic banker in Malaysia, Badlisyah (2008) assumes that many people are confused over the claim that speculation is disallowed under Shariah principles. According to him, what is prohibited is *gharar* (uncertainty) in the documentation. When a lawyer in the Islamic bank does documentation, just as in common law, they must ensure that the documentation is certain. At the same time, the document must clearly state what is being bought and what is being sold. It must also state who is involved in the transaction, what is being transacted and what the deliverable goods are (Wong & Eng, 2018).

Indeed, according to Farook (2010), the Islamic finance industry appreciates diversity in the asset management business mainly to promote innovation. It is more important for risk management and treasury that volume-based contracts such as Islamic currency swaps, forwards and options and Islamic profit rate swaps are standardised. The following is the legal opinion of cross-border Islamic derivatives transactions from three different countries:

Table 7.1 Cross-Border Islamic Derivative Transactions from Different Legal Opinions.

| SUBJECT | MALAYSIAN LEGAL OPINION | SINGAPOREAN LEGAL OPINION | LONDON AND WALES LEGAL OPINION |
|-----------------------------------|--|--|--|
| Legal Opinion | Zaid Ibrahim & Co | Allen & Gledhill | Clifford Chance LLP |
| Applicable Act | FSA 2013, IFSA 2013, Labuan Financial Services and Securities Act 2010, Companies Act 1965, Labuan Companies Act 1990, Central Bank of Malaysia Act 2009, Pengurusan Danaharta Nasional Berhad Act 1998, Bankruptcy Act 1967, Netting of Financial Agreements Act 2015 | Ch7A Application of English Law Act Ch50 Company Act Ch 20 Bankruptcy Act Sec84 & 85 of MAS Amendment Act 2017 | Insolvency Act 1986, Insolvency Rules 2016, Banking Act 2009, Bank Insolvency Rules 2009, Bank Administration Rules 2009, Investment Bank Special Administration Rules 2011, EU Insolvency Regulation, FMSA, FCA, PRA, Cross border Insolvency Regulations 2006, Credit Institutions Regulations 2004, Financial Markets and Insolvency Regulations 1999 |
| Termination enforceability | <p>Enforceable under the Malaysian Law whether the AET is elected or the otherwise subject to the TMA, transactions and DFT terms of agreements meeting the definition of “qualified financial agreement” and “qualified financial transactions”</p> <p>Although could be subject to a Stay Period (ref 1.6) or, if applicable, moratorium period under MAS Act 2015</p> <p>Ref 2.9 – conclusion under MDIC Act 2011</p> <p>Ref 3.12 – conclusion under PDNB Act 1998</p> <p>Ref 4.11 – conclusion under FSA and IFSA Act 2013</p> <p>Ref 5.5 – conclusion under CBMA 2009</p> | <p>TMA provision binding and enforceable on the liquidator of the defaulting party whether AET has been elected in the agreement or otherwise</p> <p><i>Support:</i></p> <p>-recognition of ipso facto clauses</p> <p>-Carve out (sec 227D(5)) in judicial management moratoria (sec 227D) Singapore Companies Act do not affect the exercise of any legal right under any arrangement (including a set-off arrangement or a netting arrangement) that may be prescribed by regulations made under Section 411 of the Companies Act. This is to enhance and promote Singapore as the International Debt Restructuring Centre.</p> <p>-see contractual rights of netting are similarly contractual rights and self-help remedies, A&G of the view that the same analysis and conclusion would apply to netting rights (Case: Electro Magnetic (S) Ltd (under judicial management) v Development</p> | <p>Enforceable regardless if AET is elected by both parties or not</p> <p>Reason: no rule thus so far under the English Law that would prevent the parties from</p> <p>- from exercising its rights in serving notice and designating an Early Termination Date in the event an English Company had entered Insolvency Proceedings</p> <p>-agreeing a contractual mechanism for the automatic designation of an Early Termination Date in the event an English Company has entered insolvency proceedings</p> <p>Challenge: Existence of other rules (Insolvency Rules 2016, Banking Act 2009, Bank Insolvency Rules 2009, Bank Administration Rules 2009, Investment Bank Special Administration Rules 2011) that may qualify to hinder the effectiveness of TMA Netting and setoff provisions</p> <p>Note that the above rules or act do not affect the rights of Parties to terminate the TMA but may impair the effectiveness of the</p> |

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| | | <p>Bank of Singapore Ltd [1994] SGCA 33</p> <p><i>Challenge 1:</i> Without AET and if liquidator has exercised its right or simply cherry pick to disclaim the transaction under sec332 of Companies Act which is effective for 12 months, prior to non-defaulting party giving the early termination notice</p> <p><i>Counter:</i> Non defaulting party must prove that the transaction is done in good faith without presence of unfair preference or transaction being undervalued at the point of entering into the contract/transaction</p> <p>Note: Challenge 1 eliminated if AET clause is present in TMA</p> <p>Challenge 2: Sec 83 & 84 MAS Amendment Act provides where one party is a pertinent FI, termination right will have no effect if MAS decides on temporary suspension (intended to study the impact of the insolvency)</p> <p><i>Counter:</i> This is on temporary basis only and will not affect the non-defaulting party to terminate the contract once the temporary suspension period ends.</p> | <p>netting and set off provision in the TMA</p> <p>(refer 4.1-4.3)</p> <p>Qualifiers are among others include the following</p> <ul style="list-style-type: none"> -deposit guarantee scheme provides preferential system in insolvency for insured depositors and hence eligible deposits will be excluded from the TMA setoff provision coverage -Statutory Insolvency Setoff applies if amount being setoff are mutual between the parties - Statutory Insolvency Setoff unavailable if amount to be setoff is void (refer 4.1.4) - Statutory Insolvency Setoff may not apply if solvent party entered the transaction after i. insolvent party entered administration, ii. It became aware that application for administration order has been made or there is intention to appoint administrator in respect of insolvent party iii. I became aware of a meeting of creditors of the insolvent party had been summoned under sec98 of insolvency act 1986 or petition for winding up application is pending, iv. during the insolvency or winding up of insolvent party and that a recognition application was pending -date of conversion of transacted currencies into sterling is a single rate referring to the date the court makes a winding up order -liquidation value is on liquidator (although the law provides the right of appeal if the other party assess the value to be different) -inclusion of law of other jurisdictions -attaching creditors, defendant party and debtor party relationship -banking act 2009 provision i. allowing BOE to transfer assets to another person, ii. special bail-in provision, iii. Rights of BOE to change the law (except the |
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| | | | <p>Banking Act itself) so to ensure Part 1 of the Banking act to be used effectively</p> <p>-right to setoff is not affected so long as they do not fall under the excluded rights and excluded liabilities</p> <p>-others: refer other insolvency issues sec4.3</p> <p>CCL opinions expressed are subject to the effects of UN,EU and UK sanctions or other similar measures implemented and effective in the UK with respect to parties controlled or connected with a person resident in, incorporated in or constituted under the laws of country to which the sanction applies</p> |
| <p>Closing out netting</p> | <p>Enforceable under the Malaysian Law</p> <p>-if the contractual netting of termination values is consistent with the statutory right of setoff contained in sect41 of bankruptcy Act 1967 and read together with sec291 of Companies Act and non-defaulting party had no notice of the Defaulting party's act of bankruptcy when they entered into transaction</p> <p>-Companies Act recognizes right to set off under sc41 of Bankruptcy Act and so sec223 of Companies Act will not be void (ie the disposition of properties of company by way of netting off the termination values)</p> <p>-exceptions: a. there is evidence of transaction at undervalue or under undue preference where the payment could be void and clawed back. This, however, can be challenged by the non-defaulting party if it had no knowledge that the other party is under any act of bankruptcy, b. there is a moratorium in respect of defaulting party as an affected person under the MDIC Act, Danaharta Act or MAS Act, no set-off can be done unless with prior written consent from such regulatory bodies are obtained,</p> | <p>Fully Delivered</p> <p><i>Challenge:</i> Sec300 Companies Act emphasize pari passu distribution on winding up and question arises as to whether Sections 6(d) and 6(e) of the TMA (the "Netting Provisions") represent an attempt by the parties to vary by contract the provisions of this section on pari passu and consequently confer upon the Non-defaulting Party a result which cannot be effectively achieved in the absence of the creation of a security interest in favour of the Non-defaulting Party</p> <p><i>Counter:</i> Sec 88(1) Bankruptcy Act applicable to companies via Section 327(2) of the Companies Act (the "Mandatory Insolvency Set-Off Provisions"). No case study testing this nor any Singapore authorities dealing directly on this matter and A&G are of the opinion that netting provision will achieve a similar result as MISOP. The case study shows MISOP also covers</p> | <p>Fully Delivered</p> <p>Enforceable as no rule thus so far under the English Law that would prohibit parties from agreeing to First Netting Provision and the Second Netting Provision upon entering into a contract. No moratorium also to</p> <p>prevent, delay or affect the exercise of such rights by the non-defaulting parties.</p> <p>Non-Fully Delivered</p> <p>Challenge: Sec127Insolvency Act 1986 mentioned that in a winding-up by the courts under the English Law or a bank insolvency, any disposition of the insolvent Party's property made after the commencement of a winding-up or bank insolvency of such Party are void unless otherwise ordered. Thus, any agreement for the sale of DFT pursuant to the Wa'ad entered into after compulsory winding-up or bank insolvency might not be capable of inclusion in the Netting provision or a set-off pursuant to a Statutory insolvency Set-off</p> |

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| | <p>c. BNM exercises its powers to restrict or prevent any parties from terminating any agreement or transaction or acquire any such parties assets under the CBMA (note that the enforceability of the netting of termination values will not be affected by BNM powers if TMA, Transactions and DFT Terms and Agreements fall under the “qualified financial agreement” and: qualified financial transactions” as defined under the CBMA</p> <p>Note: compensation must be “reasonable compensation” under the liquidated damages claim</p> | <p>Support from MAS – Regulation 15 Rights and liabilities are considered to be protected</p> <p>if they are rights and liabilities which arise from all financial contracts between a transferor on one part and a counterparty, which are rights and liabilities of the counterparty which the counterparty is entitled to set-off or net under a set-off arrangement or netting arrangement, and Regulation 16</p> <p>a safeguard that provides that the MAS’ powers of moratorium shall not apply to any set-off arrangement or netting arrangement in relation to a financial contract after 23:59 (Singapore time) on the second business day after the date on which the moratorium has commenced</p> | <p>Counter: Liquidated Damages Provision provides the remedy to the non-defaulting party to claim compensation due to failure of the other Party to execute its Wa’ad under the DFT</p> |
| <p>Set-off</p> | <p>-same as above-</p> | <p>Fully Delivered</p> <p>Applicable under Mandatory Insolvency Set-Off Provisions if three conditions below are met:</p> <ol style="list-style-type: none"> 1. mutuality 2. mutual debts mature into monetary claims 3. prior to entering contract/transaction the non-defaulting party is unaware of the winding-up application, the appointment of a provisional liquidator or judicial management application against the defaulting party. The transaction entered after this time will not be eligible for setoff unless otherwise ruled by Singapore Court. <p>Not enforceable under anti deprivation rule (if found transaction is done to evade the insolvency law) and also section 227T and 329 of Companies Act if proven that transaction is done at an undervalued price or result in unfair preference (that the</p> | <p>CCL is of the opinion that the Set-Off and the Flawed Asset provisions are enforceable under the English Law</p> <p>Case Law: Lomas and others (Administrators of Lehman Brothers Int (Europe) vs JRB Firth Rixson Inc (21 Dec 2010) in English Court and Lomas and others (Administrators of Lehman Brothers Int (Europe) vs JRB Firth Rixson Inc and others [2012] EWCA Civ 419 by the English Court of Appeal</p> <p>Note that the court found the Flawed Asset provision is problematic is the non-defaulting party owed no further obligation to the non-defaulting party and hence the anti-deprivation rule must be considered on a case to case basis</p> |

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| | | <p>– defaulting party is influenced to do so by related parties).</p> <p><u>Not Fully Delivered</u></p> <p>Enforceability may be challenged under the following grounds:</p> <ol style="list-style-type: none"> 1. Void disposition of property (unless its non-fungible and amount, not a penalty) 2. unfair preference <p>However, if the option to sell the designated assets is not exercised or the party to which a notice has been given fails to comply with its undertaking to purchase, and the Exercising Party is entitled to liquidated damages, then the Relevant Index Amount or the liquidated damages are capable of being set-off under Section 6(h) of the TMA (where such set-off is consistent with the Mandatory Insolvency Set-Off Provisions).</p> | |
| Termination Currency | <p>Enforceable and recognized under the Malaysian Law as long as agreement by the parties to enter into TMA was made bona fide and was not a result of fraud, mistake, representation or made with an intention to evade any provision of Malaysian Law.</p> | <p>It is possible to file a proof of claim in liquidation proceedings in Singapore for a debt payable in a currency other than Singapore dollars. However, when payments to creditors are made in the course of administering the insolvency, such payments will be made in Singapore dollars, as per rule 181 of the Bankruptcy Rules</p> | <p>Enforceable as there is no rule under English Law preventing the Parties from choosing their Termination Currency other than Sterling. However, in circumstances where the English Company is subject to certain Insolvency Proceedings, and the other Party wished to make a claim in the relevant Insolvency Proceedings, a debt incurred in a currency other than sterling would be required to be converted into sterling (refer 4.1.4)</p> |
| Multibranch Termination enforceability | <p>Enforceable under the Malaysian law in the case of the defaulting party is a Malaysian Bank operating on a multi-branch basis (ref answer to Part II Question 1, page 47)</p> <p>Foreign-owned banks licensed under Malaysian Laws are required to be incorporated as a public company in Malaysia. Hence, such banks would be treated as domestic banks in their insolvency.</p> | <p>Enforceable where a party is a company incorporated in Singapore. Enforceable with limited power if the party is a branch (in Singapore) of foreign incorporation in a foreign country as the interest of Singapore creditors will be given priority</p> <p>Closing out the position will be looked into in totality (refer 3.3, 4 and 5, page 31)</p> | <p>In the case where Defaulting Party is UK Bank having branches in other countries,</p> <p>CCL expresses no difference from its opinion before with regards to enforceability; however, it cautions that there may be practical limitations to a liquidator's or administrator's ability to recover assets and ascertain liabilities outside its jurisdiction. The issues of private international law and laws of other jurisdictions may impair the insolvency officer's ability to uphold the intended effect of TMA section 10.</p> |

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| | <p>Hence no possibility of below scenario described in Part II Question 2 happening</p> <p>Enforceable to foreign bank registered as Labuan branches under the LCA and licensed under the LFSSA. The insolvency proceedings will be under Malaysian law. There is the possibility for the scenario described in Part II Question 2, and in that case, the insolvency proceedings on Bank F in country H will invoke sec131 of LCA which provides the provisions of part VIII, and X of the Company Act will apply. The local liquidator will protect the interest of the local creditors first.</p> <p>In addition, the creditors of the foreign bank Labuan branch may initiate separate liquidation proceedings under sec315 of the Companies Act and appoint their own liquidators</p> <p>ZICO opines that, in the absence of no such case law in Malaysia, it is likely that the liquidator in Malaysia and the courts in Malaysia would recognize the nature of multibranch transactions and give effect to the contractual intention of the parties under TMA, which us that the obligations and liabilities arising as a result Transactions and DFT Terms and Agreements under the TMA rests on the Head Office of the foreign Bank incorporated in its country of incorporation</p> <p>ZICO also opines that TMA would be treated as a single unified agreement by a liquidator in Malaysia, regardless of the treatment of the TMA and its DFT Terms Agreements under a non- netting jurisdiction so long at the country where the foreign bank is incorporated recognizes the TMA and its DFT Terms and Agreements constitute a single unified agreement</p> | | <p>In the case of Defaulting Party is foreign Party incorporated under the member states of European Economic Area and constitute an EEA Credit Institution with a branch in the UK, the English Court will not be able to initiate a separate legal proceeding on the local branch.</p> <p>In the case of Defaulting Party is foreign Party with a branch in the UK, the English court could elect to initiate separate proceedings if the foreign party is not incorporated under the member states of European Economic Area and constitute s an EEA Credit Institution and hence the English Insolvency Law will apply. Note also that the English Court may accordingly apply foreign systems of law rather than the English law where the Party is foreign incorporated, and the request is made by a competent court of specified jurisdictions (the Channel Islands, Isle of Man, Anguilla, Australia, the Bahamas, Bermuda, Botswana, Brunei, Canada, Cayman Islands, Falkland Islands, Gibraltar, HK, Ireland, Malaysia, Montserrat, NZ, South Africa, St Helena, Turks & Caicos Islands, Tuvalu and the Virgin Islands.</p> <p>CCL is of the opinion that whichever way jurisdiction is exercise there would not be any circumstances that the insolvency officer appointed by the English Court would seek to take the benefit of Transaction and DFT Terms Agreements entered into with the Local branch whilst forcing the foreign local branch counterpart to prove for the net value of other TMA transaction in the proceedings of the foreign party's country of incorporation.</p> <p>The above opinion will be the same if the branches include those in non-netting jurisdiction for Party incorporated in the UK or outside the UK so long as in the case of Party is foreign</p> |
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| | | | incorporated, its country of incorporation recognizes the TMA netting off provision) |
| Multibranch Closing out netting | Enforceable under the Malaysian law in the case of the defaulting party is a Malaysian Bank operating on a multi-branch basis | No case law to determine the stand of Singapore law. However, A&G I of the opinion that closing out netting should be enforceable. | -refer above section- |
| Multibranch Set-off | -same as | -same as above- | -same as above- |

Based on the above table, it is clearly observed that there is a need for standardisation of the Islamic derivatives transactions, whereas the parties tried to minimise the systemic risk and hedging market risk in their cross-border business activities.

7.3.3 Lack of Shariah-compliant Derivatives Instruments Awareness

“...when it comes to derivatives, it is a very sophisticated topic to some level, and they often misunderstand the transaction. In this case, we need to educate people. If it is not coming from the misunderstanding, it may stand for the philosophical position that scholars take....” (A1)

Public awareness of Islamic hedging products is still low. Many corporate managers shy away from understanding the product and do not know whom to refer to for advice.

“...the important thing the customer knows about the product awareness about this product in the market. So, the people who are using this product are not people who do not have a kind of education but normally like the corporate client are understand enough about these Islamic derivatives products....” (A2)

It could also be due to incomplete information, so the learning process becomes stunted. To solve this issue, Islamic financial institutions could organize engaging workshops on Islamic hedging instruments and move to address any concerns that new potential customers may have prior to signing the agreement.

“...the important thing from the client's perspective is that we need to inform them of the risk that will be faced in advance. You cannot hide it from the client. You must be transparent in advance. The treasury sales side needs to understand clearly that it is not only to make money but also about honesty with the client from both sides, either negative or positive side of these products....” (A2)

7.3.4 Lack of Support from Regulations

“The future growth of derivatives in key Islamic finance markets will depend on regulators and policymakers adopting legislations that permit the enforceability of close-out netting provisions and collateral arrangement provisions in derivatives contracts” (Bashar Al Nator, the global head of Islamic finance at Fitch Ratings, IFN Volume 17 Issue 27)

Enforcing close-out netting provisions will enable IFIs to manage credit risks by terminating outstanding transactions with a counterparty following an event of default and calculating the net amount due to one party by the other. Furthermore, collateral arrangement provisions can help to control credit risk by enabling trading parties to pledge variable levels of collateral in support of their trading positions on an ongoing basis. This close-out legislation has been adopted in some countries such as Malaysia, United Arab Emirates, Bahrain, Qatar, Indonesia and Turkey. In this regard, there is a positive credit development in the financial industry and, more specifically, the Islamic finance sector. However, the above close-out legislation has not yet been implemented in some countries, such as Saudi Arabia, Oman, Kuwait and Pakistan.

Past experience from Malaysia shows support by the regulator in Islamic derivatives transactions so that the Central Bank of Malaysia, Bank Negara Malaysia, and other stakeholders collaborated in issuing an IDMA in 2007. This was the first set of global Islamic regulations regarding these specific derivative products in IFIs. In 2010, the International Islamic Financial Market (IIFM) based in Bahrain and the International Swaps and Derivatives Association (ISDA) joined forces to present the ISDA/ IIFM Tahawwut Master Agreement, based on the standard structure of a commodity Murabahah transaction, which was designed to govern the legal and credit relationship between two parties embarking on a bilateral trading relationship involving Shariah compliant hedging transactions.

“The IIFM/ISDA Tahawwut Master Agreement (TMA) is now implemented across numerous jurisdictions, including Malaysia” (Ijlal,)

The above shows that a wide range of countries, including Malaysia and others, are using the TMA as the legal documentation for the Shariah compliant derivative transactions.

7.4 Demystifying SCD Beyond Hedging Model Approach

“...it really depends on the business demand in the market because they are looking for the higher return (as this is human nature). As far that we can keep with the highest return, then we go in the market based on the calculated risk...” (Head of Islamic Treasury – Interview)

The Shariah-compliant derivative has provided the hedging strategy. Here are examples of Islamic Structured products that combine risk management tools and investment vehicles to incentivise customers and investors with a more attractive and structured product that is cosmetically Shariah-compliant.

“There are business demands to use the Islamic derivatives beyond hedging, which is based on the investment (placement) tools of transaction.” (Head of Islamic Legal Department – Interview)

There is still a lack of public awareness among market players regarding the benefit of derivatives in Islamic finance business activities. They view derivatives as complex and require special handling, which is valid to a certain extent, especially with regard to system requirements. By avoiding engaging with derivatives instruments, the IFIs subjects themselves to limited liquidity management tool, especially the capability to mitigate the risk it is facing. However, this is in contrast to the expectation that IFIs, as financial intermediaries, should perform a publicly beneficial role in managing financial resources in a Shariah-compliant way.

“Shariah-compliant finance is a technique to vaccinate the Islamic principles in relation to the economic theory into practical activities. It tries to upgrade a specific Islamic version of economics that is guided by the rules of the holy book of Muslims, the Qur’an” (Visser, 2009:1)

Shariah-compliant models’ Islamic derivatives in IFIs are unique in its characteristics and nature as they provide a new dimension and approach that is different from the CFIs system. The processes of constructing Shariah-compliant derivatives might be interconnected interconnection and have common foundations with conventional derivatives instruments that functionally can be used as a tool to improve liquidity management of market participants and supplement the absence of suitable risk transfer mechanism under a Shariah-compliant technique. Furthermore, it would require undertaking some extra processes and requirements compared to the “traditional” derivative models that required a Shariah-compliant structure to be injected into the derivatives instruments.

IFIs have to ensure the business demands in the market and environmental stakeholder's demands in maintaining their attractiveness by structuring ‘Shariah-compliant’ models with ‘traditional’ derivatives products. The classical principles of Islamic finance have provided for IFIs to be more flexible and innovative in providing business demands in the market.

“The requirements for Islamic derivative instruments need some basic conditions from Shariah Scholars with regard to the sale of an asset. Since a derivative instrument is a financial asset that depends on the value of its underlying asset, the Shariah conditions for the validity of a sale would also be relevant. Aside from the fact that the underlying asset must be halal, at least two conditions have been met; (i) the underlying asset or commodity must currently exist in its physical. (ii) The seller should have legal ownership of the asset in its final form.” (Bacha, 2007)

7.5 Blended SCD with the Hedging and Investment Activities

“...this is very interesting that the shariah compliant derivatives are very related to hedging and investment. When we are talking to the investment, it is going to be related to the arbitrage in order to generate income in getting more money...” (B1)

In global Islamic capital market activities, the hedging tool is applied. It operates as a specific strategy for IFIs in managing their investment risk and mitigating the market uncertainties that can systematically affect Islamic finance stakeholders and its ecosystem. It helps with adopting the business risks with the business demands in facing the endemic market volatility within the world financial system. Therefore, the insider of IFIs has to ensure the profit from the investment activities has been calculated accurately and monitored intensively, intending to protect an investor's investment position in achieving mutual benefits from both parties. Hence, there are business demands of IFIs in dealing with the Shariah derivatives transactions to go beyond the hedging strategy in managing their investment risks in order to achieve a higher risk for a higher profit or returns.

“...Sometimes, you need the hedging product in order to hedge the Sukuk investment based on different currencies. If we do not have this type of hedging product, we will not be able to invest in the Sukuk...” (A2)

Today, many investors are willing to accept and agree with the high risk they are taking in order to get higher returns on their investments. Consequently, there is a requirement for the separation of activities and documentation between hedging devices and investment activities to align with the Shariah principles. For these reasons, the insider of IFIs provides an attractive solution to the conventional instrument, which is using the Shariah derivatives instruments as mainly plain vanilla hedging tools in blending other investment instruments to be constructed as a product bundling which is a more sophisticated product and grouped between hedging technique for protection and investment activities for generating profit.

7.5.1 The Islamic Dual Currency Investment (DCI-i)

“...now, we just started to offer Dual Currency Investment (DCI) last year. This year also, we will offer the DCI not really based profit rate benchmark on the KLIBOR but rather based on the equity benchmark...” (A2)

Generally, the Islamic Dual Currency Investment is a deposit product that is expected to earn higher returns than regular foreign currency deposits. This product is a fixed deposit product linked to the performance of a pair of foreign currencies based on the concept of *Wakalah bi al-Istithmar* (an

agency contract for investment). Principally, the product allows the customers or investors to give an option on the flexibility to identify and choose the parameters of their investment fields.

“This Islamic dual currency Instrument, if I can still recall it correctly, is just an instrument that can be used for hedging and investment. Nevertheless, when it comes to investment, we need to establish — to draw a line whether this kind of investment is a need — we do not have any other avenue to do this kind of investment unless we enter into this Dual Currency Investment. Moreover, drawing this line is not easy. Because of that, I think this type of product is in the market, but I do not see it as well accepted by the market, oversubscribed by the market or industry.” (F8)

Moreover, the DCI-i is targeted at investors who have views on the price movements of foreign currencies and those who seek potentially higher short-term returns than traditional deposit products.

“...the product is expected to appeal to the bank's existing customers who are already investing in dual currency structured investments or those with foreign currencies commitments or obligations, such as payment for education abroad....” (A2).

Likewise, this structured product will be an alternative to the hedging tool for those who seek to manage their foreign currency exposures based on the Shariah-compliant approach. It provides customers or investors with a method to generate higher returns from investments in different currencies and various tenors.

“...It will also be an alternative risk management tool for Malaysian institutions or corporations seeking to manage their foreign currency exposures using a Shariah-compliant product. It is crucial for investors to fully understand the nature of such investment products and the risks involved before deciding on investment choices....” (B1)

The way a Shariah contract can be applied to the DCI-i product is shown below; 1.) *Wakalah bi al-Istithmar*: an investment agency contract where the customer/ investor as principal that appoint the IFIs as its agent with a mandate to undertake Shariah-compliant Investment activities on behalf of the customer/ investor with the IFIs have a right to receive a fee (*ujrah*) based on their effort. 2.) *Wa'ad*: is a unilateral promise by one party to another party to undertake an investment activities transaction. 3.) *Commodity Murabahah*: a contract referring to a sale and purchase transaction involving a Shariah-compliant commodity whereby the cost and profit margin (markup) are made known and agreed to by all parties involved. The settlement for the purchase can be either on a deferred lump sum or on an instalment basis and is specified in the agreement. 4.) *Al-Sharf*: a contract referring to exchanging one currency for another at an agreed exchange rate on a spot basis.

For instance, the customer/ investor would like to deposit their money by investing in a DCI-i instrument in currencies A and B. At maturity, the customer/investor could be rewarded with principal plus profit either in Currency A or B (converted at the agreed-upon conversion rate of X).

In terms of currency, the customer/investor can choose to invest either in (a) MYR as the ‘investment’ currency or (b) USD as the ‘alternative’ currency.

Based on the underlying investment activities of this transaction, the customer/ investor will enter into a *Commodity Murabahah* transaction whereby the customer/ investor will sell IFIs a Shariah-compliant commodity on a *Murabahah* basis with the type of commodity, and its quantity shall be specified in the relevant Commodity Murabahah Sale Agreement at Sale Price. The Sale Price is equal to the Principal plus Profit in Investment Currency, i.e. MYR 100,000 + 10% Profit in MYR. The Sale Price shall be paid to the Customer at the end of the duration period. Simultaneously, the customer/ investor also enters into a *Wa’ad* with IFIs, in which the customer/ investor (who is the Promisor) would give an undertaking to IFIs that the customer/ investor would accept payment of the Sale Price in the Alternate Currency (in USD), by effecting *al-Sarf* based on the agreed Strike Rate of MYR (4.1280). The Sale Price in the Alternate Currency shall be USD 100,000/4.1280 + 10% Profit in USD. In other words, the customer/ investor has given the right (not obligation) to IFIs to pay in USD.

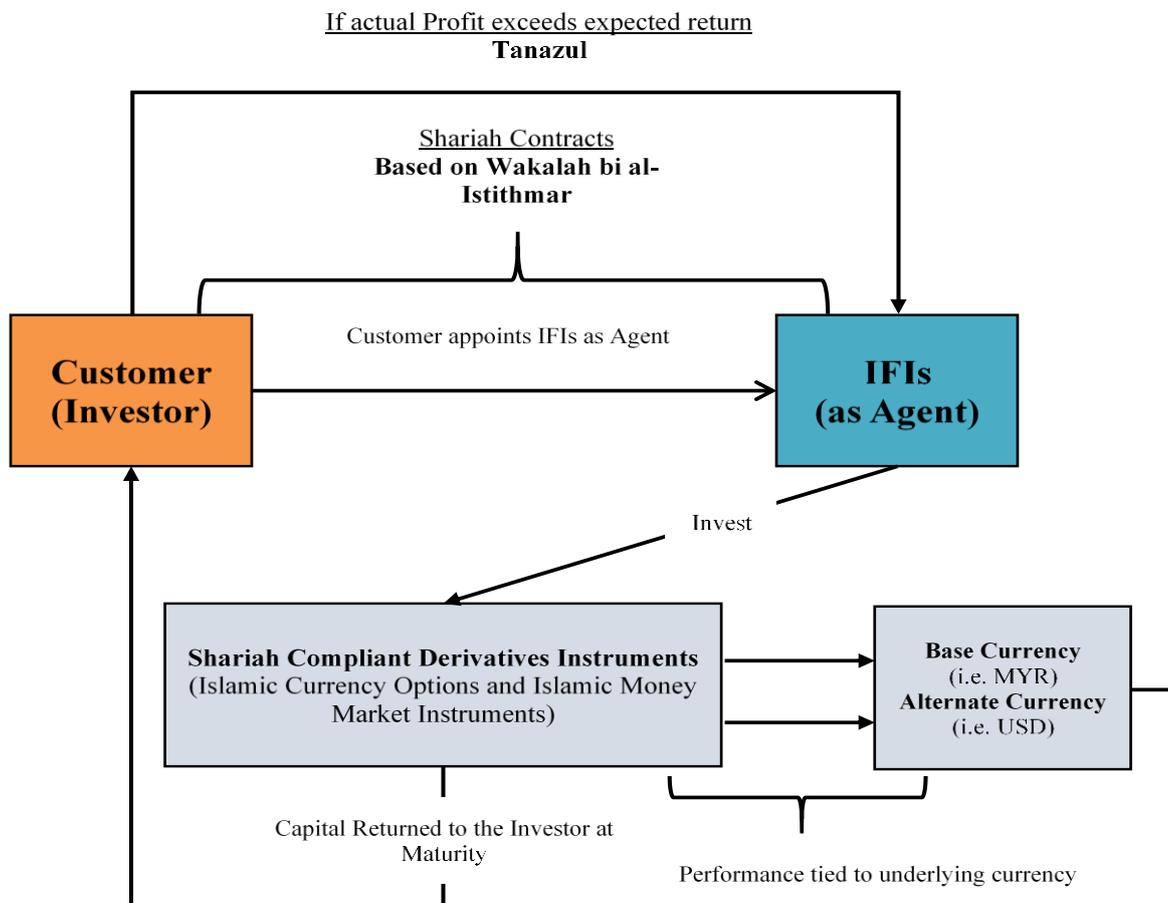


Figure 7.1 Islamic Dual Currency Investment (DCI-i) Structured Product

During the maturity period, the payoffs to the customer/ investor can be divided into two scenarios: *First*, if the *Wa'ad* is in-the-money, i.e. it is beneficial for the Bank to pay the proceeds in an Alternate Currency, IFIs as the Promisee shall exercise his right to pay the Sale Price in the Alternate Currency - client to receive Sale Price in Alternate Currency. *Second*, if the *Wa'ad* is out-of-the-money, i.e. not beneficial for IFIs to pay the proceeds in Alternate Currency, IFIs, as the Promisee shall NOT exercise the right – of customer/ investor to receive Sale Price in Investment Currency.

“There is a demand to use Islamic futures. How do you control that speculation behavior? So, there is always a business demand, but as long as you do not know how to mitigate the speculation part, then you cannot allow it yet unless you can ensure in line with the Shariah rules and principles. (A2)

The DCI-i will provide for both local and international Islamic investor participants. These market participants comprise institutions that are looking to invest in instruments that would provide an enhanced return from taking FX risk with the following segment: a.) *Importers*; the customer may invest excess cash into DCI-i for higher returns and do not mind maturing principal to be in foreign currencies since they have direct payables in those currencies. b.) *Exporters*; the customer may want to invest Foreign Currency (FCY) receivables into DCI-i for higher returns and do not mind maturing principal to be in MYR since they have direct overhead expenses in MYR. c.) *Fund Manager*; the customer may add DCI-i into product offerings to offer customers higher returns from taking foreign exchange risks.

As a structured product of DCI-i, the risks that may be involved in entering into this Shariah-compliant Investment activities may include, but are not necessarily limited to, the following:

a) Credit Risk:

Based on the structured product of DCI-i, the payment of the principal amount and any returns of the Investment depends upon the ability of IFIs to make such payments. The Investment is not a deposit of IFIs but rather is a general unsecured obligation of IFIs.

b) Legal Risk:

The Customer/ Investor should ensure that entering into this structured product of DCI-i is not in breach of any laws, regulations, contractual or other legal limitations that may apply to the Customer/ Investor or which may prevent it from entering into the Investment. This product is issued subject to applicable laws, regulations and guidelines issued or administered by the Securities Commission, Bank Negara Malaysia and other relevant authorities. In the event of a change in such laws, regulations or guidelines, IFIs may be obliged to change some or all of the terms and conditions of the Investment, including the possibility of early termination. While the amount payable to the Investor in such an event

shall be determined in good faith, the Investor should be aware of the possibility that this amount may be less than the Redemption Price/ Amount at Maturity.

c) Liquidity Risk:

The structured product of DCI-i comprises one or more embedded financial instruments, including derivative instruments. The underlying instruments themselves, or the combination of such instruments, may be relatively illiquid. Such illiquidity may be reflected in the pricing or valuation of this Investment in the event of early redemption or transfer prior to the Maturity Date. If the Investment is not transferable, the ability of the Investor to liquidate its Investment prior to the Maturity Date depends upon the conditions for an early call or early termination (if any). Even if the Investment were transferable, there might not necessarily be a liquid secondary market for the Investment.

d) Market Risk:

This product's value depends on various market factors, including movements in the underlying reference index, the variability or volatility of the such index, profit rate levels, foreign exchange rates and other factors. Changes in such market factors are affected by various influences, including but not necessarily limited to general economic and political conditions, business, consumer and Investor confidence, events affecting specific companies or entities, and developments in other countries. The degree and manner in which the relevant market factors are affected by such influences may not necessarily be constant or predictable at all times and may be influenced by sentiment and supply and demand factors in the underlying markets.

In this case, the Customer/ Investor should note that the IFIs may be active in the underlying or related financial markets and, accordingly, may influence the reference index or related market factors to some extent. The IFIs are free to do so and do not in any way owe any fiduciary or other obligation to the Investor when effecting the IFIs' trades.

e) Operational Risk:

The performance of the terms and conditions of this Structured product of DCI-i depends upon the proper functioning of systems and processes, both internal and external to IFIs. An unforeseen disruption of such systems and processes, including that resulting from a market disruption or system interruption, may result in a delay in the performance of such terms. The Customer/ Investor should also be prepared for and have the necessary

resources to manage any internal operational issues arising from this Investment, including receipt of principal and returns, as well as the exercise of any early call or put features.

f) Early Redemption & Commitment Risk:

This Structured product of DCI-i is designed to be held to maturity. Early redemption (other than by the exercise of call or put, if any) is permitted in accordance with such policies and procedures to be agreed upon between the Parties. However, in the event of such early redemption, the early redemption price may not necessarily be equal to the Redemption Price/ Amount at Maturity.

Certain Investments may also contain a right of the IFIs to call the Investment prior to the maturity date. The amount to be received by the Customer/ Investor in the event of such an early call shall be as specified in the product documentation. The IFIs shall only exercise this right to call the Investment in accordance with the terms specified.

g) Shariah-compliant Option Equivalent Instruments Risk:

Structured products of DCI-i may contain one or more embedded financial instruments making use of *Wa`ad* and Commodity Murabahah concepts which may have economic characteristics equivalent to certain derivatives such as options. The value of such instruments depends on a variety of market factors, including movements in the underlying reference index, the variability or volatility of the such index, profit rate levels, dividend levels, foreign exchange rates and other factors. In particular, the Customer/ Investor should be aware that the value of the instrument may not necessarily change in constant proportion to changes in the underlying reference index. Further, such instruments will tend to decline in value over time, assuming that all other market factors remain unchanged. These factors affecting the value of the instrument will also be reflected in the value of the Investment in which it is embedded.

h) Currency Risk:

Currency risk may be present where either the principal amount or the returns of this Investment are denominated in a currency other than the preferred currency of the Customer/ Investor. Currency fluctuations may also indirectly affect the movements of the underlying reference index or related market factors.

i) Mismatch Risk:

The timely payment of the return and payment of the principal is an obligation of the IFIs, which is obliged to obtain the necessary funds and to put in place the necessary hedges to ensure its ability to make such payments. Hence, the Customer/ Investor does not bear the direct risk of a mismatch between the investment and the underlying hedges. The Investor should, however, ensure the suitability of the Investment for matching its investment or return requirements.

j) Counterparty Risk:

The counterparty of the Investor in this Shariah-compliant investment activities transaction is the IFIs itself. In this case, the counterparty risk of the Investment is as described in the section on Credit Risk above.

7.5.2 Islamic Commodity Hedging (CH-i) Instruments

Another blended hedging instrument with investment activities is Islamic Commodity hedging (CH-i). This hedging instrument can offer a Shariah-compliant hedging facility for specific asset classes, which are (a) profit rate and (b) foreign exchange. Also, the corporate client of IFIs has commonly requested Shariah-compliant hedging solutions for the commodities. The hedging commodities are limited to be transacted on Shariah-approved commodities such as energy [e.g. Crude Oil], metals [e.g. Copper, Nickel, Aluminium, Zinc], and agriculture [e.g. Crude Palm, Soybean, Rubber]. These Shariah-compliant commodities exclude ribawi items in the category of the medium of exchange, such as currency, gold, and silver. There are three (3) types of Shariah-compliant hedging solutions for commodities such as Commodity Swap-i, Commodity Option-i, and Commodity Hybrid-i.

Firstly, the Commodity Swap-i instrument allows the client to swap a variable-price exposure on the commodities for a fixed price in the future. For instance, the corporate client, as a Crude Palm Oil (CPO) producer, is looking to hedge the CPO selling price for 30,000 metric tons (MT) per month of production for the next three years. Subsequently, the client is exploring whether to enter into a pay-variable and receive-fixed swap arrangement with IFIs to hedge the CPO price risk. In this situation, the client can lock in a fixed selling price of the CPO for the desired production amount and tenor. The following are the key terms and conditions of the transaction is presented in the Table 7.2 below:

Table 7.2 The Key Terms and Conditions of the Commodity Swap-i Instrument

| TERMS | EXPLANATION |
|----------------------------------|---|
| Underlying Commodity | Crude Palm Oil (CPO) |
| Tenure | Jan 2020 - Dec 2022 (3 years) |
| Notional Tonnage | 30,000 metric tons (MT) per month |
| Client receives | MYR 2,333/MT ("Fixed Price"). |
| Client pays | Average Variable Price |
| Commodity Reference Price | "PALM-OIL – MDEX", meaning that the price for a Pricing Date will be that day's Specified Price per metric ton of crude palm oil on the Exchange of the Futures Contract for the Delivery Date that is the third constant month of the futures (i.e. price for March 10 will be the futures prices for June 10 contract, for April 08 will be the futures prices for July 08 contract), stated in MYR, as made public by the Exchange on such Pricing Date. |
| Average Variable Price | In respect of each Calculation Period, a price in MYR per MT is calculated as the arithmetic average of the Commodity Reference Prices. In respect of each Pricing Date during such Calculation Period |
| Settlement Frequency | Monthly |
| Exchange Reference | "MDEX" being the Bursa Malaysia Derivatives Exchange. |
| Price Source | Reuters Screen page "0#/KPO:", settlement price as of 18:00 hours Kuala Lumpur time on the relevant. |

| | |
|---------------------|--|
| Payment Date | Payment shall take place five business days after the determination of the Variable price with respect to each Determination period. |
|---------------------|--|

Based on the above table 7.2, it is clearly stated that if the client is entering into a swap arrangement with IFIs at a fixed-price obligation for variable-price whereby the client will be receiving the fixed price of MYR 2,333/MT for 30,000 MT CPO every month from January 2020 until December 2022. Then, the client must pay an average variable price for 30,000 MT CPO every month from January 2020 until December 2022. From the Shariah structure perspective, during the transaction date, the Client (acts as Promisor) gives a promise (*wa'ad*) to IFIs in order to grant IFIs the right to sell the commodity as stated above [e.g. Crude Palm Oil] based on Murabahah basis to the client on each monthly settlement payment date at cost price plus (average variable price minus fixed-price). In this commodity swap transaction, the price to pay to IFIs will be set off against the commodity sale price to be received by the Client from the second trader. Furthermore, If IFIs (as Promisor) give promise (*wa'ad*) to Client in order to grant Client the right to sell Commodity on Murabahah basis to IFIs on each month settlement date at cost price plus (fixed-price minus average variable price). Here, the cost price to be paid to the client will be set off against the commodity purchase price to be paid by IFIs on behalf of the client to the first trader.

In the case of the early settlement date, for instance, in March 2020 swap settlement, the reference futures month is June 2020. If the average variable price for the June 2020 contract in the month of March 2020 is expected to be MYR 2,700/ MT, it is higher than a fixed price. For instance, IFIs exercise promise (*wa'ad*) and IFIs act as promisors to transact Commodity Murabahah transaction to effect payment by the client. In this arrangement, the client has to pay [MYR 2,700 – MYR 2,333] x 30,000 MT = MYR 11,010,000. However, if the average variable price for the June 2020 contract in March 2020 is lower than the fixed price in the amount of 2,200/MT. The client exercises the promise (*wa'ad*), and IFIs have to transact Commodity Murabahah transaction to effect payment to the client. In this arrangement, the client has to pay [MYR 2,333 - MYR 2,200] x 30,000 MT = MYR 3,990,000.

The second type of Islamic Commodity Hedging instrument is the Commodity Option-i. The Commodity Option-i consists of both Cap and Floor. The Commodity Cap allows the Client to enter into a right-to-buy contract on commodities, while the Commodity Floor allows the Client to enter into a right-to-sell on commodities. The end-users would utilize the Commodity Cap to hedge

against rising prices, and producers would utilize the Commodity Floor to hedge against falling prices. Buyers of these contracts need to pay an equivalent premium payment.

Under the Shariah concept of the Commodity Option-i, this financial hedging instrument is applied using the concept of promise (*wa'ad*) and the Commodity Murabahah structure. For instance, the corporate client (as a CPO producer) is looking to hedge the CPO selling price for 1,000 MT per month of production for the next three years. Then, the Client enters into a Commodity Floor arrangement with IFIs to hedge the CPO price risk. With the Commodity Floor, the client can lock in a worst-case fixed selling price of the CPO and gains the flexibility to take advantage of any rising market price. For this flexibility, the Client is willing to pay a premium with the following key terms and conditions of the commodity option-i transaction is presented in the Table 7.3 below:

Table 7.3 The Key Terms and Conditions of the Commodity Option-i Instrument

| TERMS | EXPLANATION |
|----------------------------------|---|
| Underlying Commodity | Crude Palm Oil (CPO) |
| Tenure | Jan 2020 - Dec 2022 (3 years) |
| Notional Tonnage | 30,000 metric tons (MT) per month |
| Client receives | MYR 2,333/MT ("Fixed Price"). |
| Client pays | Average Variable Price |
| Commodity Reference Price | "PALM-OIL – MDEX", meaning that the price for a Pricing Date will be that day's Specified Price per metric ton of crude palm oil on the Exchange of the Futures Contract for the Delivery Date that is a third constant month of the futures (i.e. price for March 10 will be the futures prices for June 10 contract, for April 08 will be the futures prices for July 08 contract), stated in MYR, as made public by the Exchange on such Pricing Date. |
| Average Variable Price | In respect of each Calculation Period, a price in MYR per MT calculated as the arithmetic average of the Commodity Reference Prices, in respect of each Pricing Date during such Calculation Period |
| Settlement Frequency | Monthly |
| Exchange Reference | "MDEX" being the Bursa Malaysia Derivatives Exchange. |

| | |
|-----------------------------------|--|
| Price Source | Reuters Screen page "0#/KPO:", settlement price as of 18:00 hours Kuala Lumpur time on the relevant. |
| Settlement Payment Date | Payment shall take place five business days after the determination of the Variable price with respect to each Determination period. |
| Premium Equivalent Payment | MYR 250,000 |

Based on the above table 7.3, it is clearly stated that if the client is purchasing a Commodity Floor at a strike price of MYR 2,333/MT for 30,000 MT CPO every month from January 2020 until December 2022 (3 years). Then, the client has to pay an equivalent premium payment of MYR 250,000. From the Shariah structure perspective, during the transaction date, the Client (acts as Promisor) gives a promise (*wa'ad*) to IFIs in order to grant IFIs the right to sell the commodity as stated above [e.g. Crude Palm Oil] based on the Murabahah basis to the client on each monthly settlement payment date at cost price plus (strike price minus average variable-price). In this commodity transaction, the price to pay the client has to be set-off against the commodity purchase price to be paid by IFIs on behalf of a client to the first trader.

In case of the early settlement date, for instance, in the month of March 2020 Commodity Cap-i settlement, the reference futures month is June 2020. If the average variable-price for the June 2020 contract in the month of March 2020 is expected to MYR 2,000/ MT and it is higher than the strike price. For instance, the Client to exercise promise (*wa'ad*) and IFIs act as promisor to transact Commodity Murabahah transaction to effect payment by IFIs. In this arrangement, IFIs have to pay $[MYR 2,000 - MYR 1,900] \times 30,000 \text{ MT} = MYR 3,000,000$. However, if the average variable-price for the June 2020 contract in the month of March 2020 is MYR 1,800/MT. It is lower than the strike price and the client is to let the promise (*wa'ad*) expire.

An example: Commodity Cap-i

The client is a CPO buyer looking to hedge the CPO buying price for 1,000 MT per month of production for the next 2-years. The client is looking to enter into a Commodity Cap-i arrangement with CIMB Islamic to hedge the CPO price risk. With the Commodity Cap-i, the client can lock in a worst-case fixed buying price of the CPO and gains the flexibility to take advantage of any declining market price. For this flexibility, the Client is willing to pay a premium with the following key terms and conditions:

Table 7.4 The Key Terms and Conditions of the Commodity Cap-i

| TERMS | EXPLANATION |
|-----------------------------------|---|
| Underlying Commodity | Crude Palm Oil (CPO) |
| Tenure | Jan 2020 - Dec 2022 (3 years) |
| Notional Tonnage | 30,000 metric tons (MT) per month |
| Client receives | MYR 2,333/MT ("Fixed Price"). |
| Client pays | Average Variable Price |
| Commodity Reference Price | "PALM-OIL – MDEX", meaning that the price for a Pricing Date will be that day's Specified Price per metric ton of crude palm oil on the Exchange of the Futures Contract for the Delivery Date that is 3rd constant month of the futures (i.e. price for March 10 will be the futures prices for June 10 contract, for April 08 will be the futures prices for July 08 contract), stated in MYR, as made public by the Exchange on such Pricing Date. |
| Average Variable Price | In respect of each Calculation Period, a price in MYR per MT calculated as the arithmetic average of the Commodity Reference Prices, in respect of each Pricing Date during such Calculation Period |
| Settlement Frequency | Monthly |
| Exchange Reference | "MDEX" being the Bursa Malaysia Derivatives Exchange. |
| Price Source | Reuters Screen page "O#/KPO:", settlement price as of 18:00 hours Kuala Lumpur time on the relevant. |
| Settlement Payment Date | Payment shall take place 5 business days after the determination of the Variable price with respect to each Determination period. |
| Premium Equivalent Payment | MYR 250,000 |

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Based on the above table 7.4, it is clearly stated that if the client is purchasing a Commodity Cap at strike price of MYR 2,000/MT for 30,000 MT CPO every month from January 2020 until December 2022 (3 years). Then, the client has to pay premium equivalent payment of MYR 250,000. From the Shariah structure perspective, during the transaction date the Client (act as Promisor) to give promise (*wa'ad*) to IFIs to transact in Commodity Murabahah to affect the payment equivalent of MYR 250,000 by the client on each monthly settlement payment date at cost price plus (strike price minus average variable-price). In this commodity transaction, the cost price to be paid to the client must be set-off against commodity purchase price to be paid by IFIs on behalf of the client to the first trader.

In the case of an early settlement date, for instance, in March 2020, the Commodity Cap settlement, the reference futures month is June 2020. If the average variable price for the June 2020 contract in March 2020 is expected to be MYR 2,000/ MT, it is higher than the strike price. For instance, the Client exercises promise (*wa'ad*) and IFIs act as promisors to transact Commodity Murabahah transaction to effect payment by IFIs. In this arrangement, IFIs must pay $[MYR 2,000 - MYR 1,900] \times 30,000 \text{ MT} = MYR 3,000,000$. However, if the average variable price for the June 2020 contract in March 2020 is MYR 1,800/MT. It is lower than the strike price and the client has to let the promise (*wa'ad*) expire.

The third Islamic Commodity Hedging instrument is the Commodity Hybrid-i. Under the Shariah concept of the Commodity Hybrid-i, this financial hedging instrument applied the concept of promise (*wa'ad*) and Commodity Murabahah structure. The CH-i is a linear combination of the Commodity Option or Commodity Swap. Such linear combination allows IFIs to assemble a diverse range of 'linear combination' hedging instruments with a unique set of return versus risk characteristics. These linear combinations could be either zero-cost structures or carry residual premium obligations. For instance, the corporate client (as CPO seller) is looking to hedge the CPO buying price for 30,000 MT per month production for the next 3-years. Then, the Client enters into a Commodity range forward arrangement with IFIs to hedge the CPO price risk. With the Commodity Range forward, the client can lock in a min fixed selling price of the CPO and enjoy any upside up to a max fixed selling price. Having given up the upside beyond the max fixed selling price, the client does not have to pay any premium on zero cost structure with the following key terms and conditions:

Table 7.5 The Key Terms and Conditions of the Commodity Hybrid-i

| TERMS | EXPLANATION |
|----------------------------------|---|
| Underlying Commodity | Crude Palm Oil (CPO) |
| Tenure | Jan 2020 - Dec 2022 (3 years) |
| Notional Tonnage | 30,000 metric tons (MT) per month |
| Client receives | MYR 2,333/MT ("Fixed Price"). |
| Client pays | Average Variable Price |
| Commodity Reference Price | "PALM-OIL – MDEX", meaning that the price for a Pricing Date will be that day's Specified Price per metric ton of crude palm oil on the Exchange of the Futures Contract for the Delivery Date that is 3rd constant month of the futures (i.e. price for March 10 will be the futures prices for June 10 contract, for April 08 will be the futures prices for July 08 contract), stated in MYR, as made public by the Exchange on such Pricing Date. |
| Average Variable Price | In respect of each Calculation Period, a price in MYR per MT calculated as the arithmetic average of the Commodity Reference Prices, in respect of each Pricing Date during such Calculation Period |
| Settlement Frequency | Monthly |
| Exchange Reference | "MDEX" being the Bursa Malaysia Derivatives Exchange. |
| Price Source | Reuters Screen page "0#/KPO:", settlement price as of 18:00 hours Kuala Lumpur time on the relevant. |
| Settlement Payment Date | Payment shall take place 5 business days after the determination of the Variable price with respect to each Determination period. |

| | |
|-----------------------------------|-------------|
| Premium Equivalent Payment | MYR 250,000 |
|-----------------------------------|-------------|

Based on the above table 7.5, it is evidently indicated that if the client is selling a Commodity Floor at strike price of MYR 2,000/MT for 30,000 MT CPO every month from January 2020 until December 2022 (3 years). Then, the client has to do a Commodity Swap at a fixed price of MYR3,000/MT for 30,000 MT CPO every month from January 2020 until December 2022 (3 years). From the Shariah structure outlook, during the transaction date the Client (acts as Promisor) to give promise (*wa'ad*) to IFIs to grant the right to sell Commodity on the Murabahah basis to the client on each monthly settlement payment date at cost price plus (Floor price minus average variable-price or Average Variable Price minus Fixed Swap Price). In this commodity transaction, the cost price to paid to IFIs will be set-off against commodity purchase price to be paid by the Client from the second trader.

Moreover, for Cost plus (Fixed Swap Price minus Average Variable Price), IFIs (as Promisor) to give another *wa'ad* to Client, to grant the Client the right to sell Commodity on the Murabahah basis to IFIs, on each monthly settlement date at cost price* plus (Fixed Swap Price minus Average Variable Price). In this commodity arrangement, the cost price to be paid to the Client will be set-off against the commodity purchase price to be paid by IFIs on behalf of the client to the first trader.

In case of maturity, for instance in the month of March 2020 Commodity Floor settlement, the reference futures month is June 2020. If the average variable-price for the June 2020 contract in the month of March 2020 is expected to MYR 2,000/ MT less than Floor strike. For instance, IFIs exercise promise (*wa'ad*) and Client to exercise *wa'ad*, IFIs to transact the Commodity Murabahah transaction to effect payment to client. Then, Client to receive $[MYR 2,000 - MYR 1,900] \times 30,000$ MT + $[MYR 3,000 - MYR 2,600] \times 30,000$ MT = MYR 15,000,000.

However, if the average variable-price for the June 2020 contract in the month of March 2020 is MYR 3,200/MT. It is higher than floor strike, lower than Fixed swap Price. In this case, Client to exercise *wa'ad*, IFIs to transact Commodity Murabahah transaction to effect payment to client. Then, Client to receive $[MYR 3,200 - MYR 3,000] \times 30,000$ MT = MYR 6,000,000. On the other hands, if the Average Variable Price for the June 2020 contract in the month of March 2020 is MYR 3,300 is higher than Fixed Swap Price. In this case, IFIs to exercise *wa'ad*, IFIs to transact Commodity Murabahah transaction to effect payment by Client. Then, the Client has to pay $[MYR 3,300 - MYR 3,200] \times 30,000$ MT = MYR 3,000,000.

7.5.3 Shariah Compliant Local Currency Financing (SLCF):

7.5.3.1 The Rationale for Shariah Compliant Financing in Local Currency

There are significant business demands for local currency financing, especially more especially for the Shariah compliant models. From the financier perspective, the IFIs can improve the creditworthiness and solvency of projects which exclusively generate local currency income by avoiding the foreign exchange (FX) risk and extending the maturity of local currency financing available in the Islamic financial market. The SLCF also improves the ability to manage currency exposure and better match the balance sheet and project cash flows of corporate clients. In this case of a facility, the corporate clients may access the Shariah compliant local currency financing at the time of disbursement of the total facility approval or through conversion of disbursements of dollar-denominated loans in order to reduce future weaknesses to foreign exchange risk. Therefore, the SLCF is highly customised to client needs and promotes Shariah compliant derivatives instruments.

Furthermore, by matching the currency of assets and liabilities, corporate clients can control the impact of foreign exchange instability and unpredictability on the client's cash flows. The SLCF is available in a growing list of local currencies subject to viability in the market.

7.5.3.2 The Benefits of Shariah Compliant Local Currency Financing

For the SLCF product, the corporate clients with their revenues in local currency should generally request a line of financing facility based on their local currency, as an alternative to requesting financing facility in a foreign currency (e.g. USD), which reflects into a currency risk exposure for the companies. Also, by matching the currency denomination of assets and liabilities, corporate clients can focus on their core business activities rather than concentrating on the foreign exchange currency rate fluctuations that will affect their core business revenues and activities. This is a natural outcome of the floating exchange rate system, which is shadowed by the global economies of the countries. The value of currencies or exchange rate movement primarily depends on the demand for a currency and the money supply in the economy. Furthermore, one of the interviewees mentioned this as an example below:

“In some countries, like Indonesia, the client requested a Line of financing facility from ICD, member of Islamic Development Bank Group in the local currency (IDR or Rupiah), and in that local currency, for example there is XYZ company in Indonesia, they want IDR 10 million (Indonesian Rupiah), if I simply convert from us, our mother currency is the dollar (USD), so we have our assets and liabilities in Dollar (USD); otherwise we will be running in an exposure. So, if I give the money to XYZ company in Indonesia, IDR 100 million, then I am exposed to this IDR and USD. It will have a huge impact on our profit and loss. We do promise based a change forward with our counterpart or a combination of Swap transactions. So, how do we do the swap from the XYZ company in Indonesia which we

borrow IDR 100 million for 5 years, and they will pay us in every year with the profit and principal, let us say IDR 120 million. So out of which, IDR 100 million is the principal, and IDR 20 million is the profit. So, what I will do now? I will call my swap counterpart. I will tell them I want to buy an IDR 100 million today and sell you the equivalent of USD today. When I buy the IDR and sell the USD, I expose the IDR right? So, if I give this loan (financing) to XYZ company in Indonesia, they will be happy. However, I am exposed to the IDR 100 million and the profit they will pay to us, IDR 20 million as extra right? So, I will sell a series of 5 forward transactions to Standard Chartered Bank in London or Dubai. First transaction, I bought IDR 100 million and sold you equivalent Dollars. The second transaction is I will sell separate five forward where I will sell them, IDR 120 million equivalent 1 year forward in the dollar, and same amount of 2 year forward, third amount 3 year forward, fourth amount 4 year forward, fifth amount 5 year forward so the exposure is really covered. So, this is one of the risks and how we mitigate it.” (F2)

In addition, from the Islamic economic perspective, money is a medium of exchange and money supply is the total currency in the distribution in the economic activity. A currency as such, does not have any material value. Its value is reflected in the goods and services that can bring on exchanging the currency movement. The value of goods and services is related to the gross domestic product (GDP) of the country. Therefore, when GDP goes up, and then the currencies go up. In other words, if the money supply increases without an appropriate increase in GDP, currency value decreases. This is because more money or currency will be chasing very few goods. This is a trend we usually refer to as inflation. When the inflation is high, then the currency value comes down.

Here, IFIs provide Shariah-compliant Local currency financing to their corporate clients to reduce the risk of losses from such currency mismatches and in line with the corporate client's strategy, forecast, and budgets. There are various benefits of the SLCF product so that IFIs can provide protection and mitigation from various currency risks, including high volatility of earnings due to currency movements, increasing funding costs over time, increasing the liability of client's cash flow, and financial difficulty and insolvencies. Other benefits of Shariah Compliant Local currency that can be offered by IFIs to their corporate clients are making the price more competitive compared to the local funding providers and expanding the exposure limits of the funding structure of the companies.

7.6 Conclusion

In conclusion, IFIs are concerned with maintaining their ethical identity. Hence, the researcher has explored how the current Shariah-compliant derivatives instruments in blending between hedging model and investment activities are a way to generate higher yields and effectively mitigate potential business risks that may face by the IFIs. Additionally, IFIs enable Shariah compliant derivative instruments to be converted into Shariah compliant structured products on par with CFIs.

Therefore, as a result of business model innovation in meeting the business demands and stakeholders' needs in tailoring CFI instruments to comply with Shariah principles, the IFI is emphasized as an added value to Shariah-compliant derivatives by incorporating both hedging strategies and investment elements.

Chapter 8 Discussion and Conclusion

8.1 Introduction

This thesis has explored the impact of Shariah Compliant Derivatives as a hedging strategy on Islamic Financial Institutions (IFIs) using the Organisational Identity theory as a basis for examining the processes required to develop SCD. This study has empirically examined how IFIs can become Shariah-compliant by injecting Islamic principles. Both interviews and observation and a case study of the Malaysian market have been used to investigate how IFIs can adapt to meet the demands of their clients and investors while retaining their Islamic ethical identity. In addition, this research has examined the discrepancies and ambiguities surrounding Shariah-compliant derivatives and has ultimately suggested a need for a Blended SCD which serves as both a hedging and investment model.

The former three chapters investigated the rationale of Shariah Compliant or Islamic Derivatives Instruments in Islamic financial institutions, especially in the Malaysian market. Chapter 5 describes the usage of Shariah compliant derivatives as enhanced liquidity management in IFIs, and attempts to put as the hedging strategy in mitigating unexpected risks that take place in dealing with the business demands while facing the business pressure in maintaining their Shariah compliant identity approach. Chapter 6 explained the business demands of Shariah-compliant hedging instruments, consequently bringing the critical intention from the market players and regulators to construct and endorse the urgency of the need to hedge against market risk, foreign exchange risk and profit rate risk in day-to-day business activities. Chapter 7 focused on finding more insights into issues that emerged from the analysis of the data collected in the interview method in relation to the theoretical framework of organizational identity theory as a lens to frame the discussion in this chapter. Also, it articulates what signifies this theoretical framework that is used to explore how IFIs impact the creation and designing of innovative derivative instruments as hedging strategies in harmony with an ethical outlook in the Islamic finance dimension.

This chapter is divided up into the following sections. Section 8.2. discovers the rationale for using the Shariah compliant derivatives transactions and their instruments in IFIs. Section 8.3.

deals with the financial innovation designed by the IFIs in facing the business pressure in the market. Section 8.4. investigates the issues and challenges of IFIs in using Shariah Compliant derivatives as part of a hedging strategy in managing the balance sheets and mitigating unexpected risks. Section 8.5 sets forth the conclusion. Section 8.6 discusses the research contributions to the field of study. Section 8.7 sets out the limitations of the study and finally Section 8.8 highlights areas for further study.

8.2 The Rationale of the Islamic Derivatives Instruments

The findings of this study confirm the study conducted by Malkawi (2014), which states that Shariah-compliant derivatives are often used to hedge and reduce the risks associated with certain transactions. The risks are liquidity, market, credit, and operational risks. In terms of liquidity risk, the findings confirm that derivatives help enhance liquidity management, lower funding cost and enable the efficient transmission of funds from borrowers and lenders based on practices that are universally acceptable in Islamic finance (Jobst, 2013).

Furthermore, the findings of this study are also in line with the basic ethical principles of Islamic finance explained by El-Gamal (2008) as prohibiting the elements of *riba* (usury or interest), *gharar* (uncertainty) and *maysir* (speculation or gambling).

The foundation of Islamic financial engineering is the removal of *riba* and the replacement of *riba* with cost plus mark-up. In preventing *riba*, the findings of this study argue that the derivatives instruments designed by Islamic financial engineering are designed in order to accommodate the demands of IFIs. Said differently, *riba* separates finance from actual transactions. Since the two counter-values of a loan are identical, it follows that interest becomes purely the cost of time or the cost of pure finance. Meanwhile, in preventing *gharar*, the finding of this study shows that one of the respondent's states:

"... it is through proper governance that all Islamic institutions would also have a shariah audit. The shariah audit will give the shariah the power to come in and audit whether the transaction or process flow is according to shariah." (F4)

In terms of *maysir*, this study suggests that an Islamic economic unit is required to assume risk after making a proper assessment of risk with the help of information. All business decisions involve speculation in this sense. The respondent states that:

“First of all, to avoid speculation, of course, we need to get the underlying asset. You need to be clear on the underlying asset. The amount. The size. And the tenor of the asset. Some — Okay, I understand that some banks — they do this hedging but again they do not match 100% — one-to-one — meaning that, let’s say the underlying asset is something like a 10-year, they would do a 5-year and leave a 5-year open, for speculation. So, for us to be — to comply with the Shariah committee approval, we need to be 100%, meaning that if your tenor is 5 years, we need to hedge 5 years. And fixed-to-float, float-to-fixed, things like that. So, we need to be very precise and very clear on this. And transparent as well.” (F5)

8.3 IFIs Respond to Innovation for Bigger Market Impact

Through the lens of the organisational identity theory, the findings of this study show that the way IFIs respond to innovation is different from CFI's ways and confirm Jobst and Sole (2009)'s that derivatives were the result of financial innovation that responded to hedge the risks in complex financial industry atmospheres. In doing so, IFIs have taken several stages of internal negotiation, as stated in 6.2.1. and external negotiation by approving the concepts of *ta'widh* (compensation) and *wa'ad mulzim* (binding promise).

The findings of this study also support Kok et al's finding (2014) that IFIs have to respond to this demand innovatively by combining business and stakeholder needs in compliance with the Shariah rules and principles. In doing so, the Islamic financial innovator/engineer tries to re-design the conventional derivatives instruments with the “flavour” of Islamic finance principles as an ethical identity in mirroring the conventional derivatives system.

In addition, this study explored the Shariah compliant derivatives used in combining hedging purposes and investment activities with the example of the Islamic Structured products that combine hedging strategy tools and investment vehicles to promote Islamic finance to the customers and investors, even though it appears that this may result in a loss of the ethical identity of IFIs.

Furthermore, the findings of this study also indicate that the output of the IFIs modification is by producing the Shariah compliant derivatives instruments that can be used for hedging purposes only and these financial derivatives instruments fortified by the Shariah principles whereby executed by IFIs, CFIs and other stakeholders who react to mitigate their business risks plus focusing on the profit maximisation orientation by imitating closely to the conventional derivatives technique and features. Therefore, the process of modifying the 2002 ISDA Master Agreement and transforming it into the Derivatives Master Agreement for Islamic/ Shariah-

compliant versions is becoming crucial in fulfilling their needs and business demands. These findings correlate with Al-Amine's (2013) view that IFIs have to manage, minimise, and hedge the business risks whereby the IFIs and/or the customers (investors and traders) are interacting with the huge market volatility, and at same time is forced to enhance the risk mitigation in an effective way to be more competitive in the financial market.

In modifying or redesigning conventional derivatives, IFIs inject the elements of Islamic finance/ Shariah principles where necessary. Hence, the conversion of ISDA 2002 into the Islamic Derivatives Master Agreement (IDMA) is considered as an alternative solution for IFIs in dealing with the hedging mechanism and risk management activities and is purposed to facilitate the trading in over-the-counter (OTC) derivatives transactions between Islamic counterparties and conventional counterparties in Shariah-compliant way. The Tahawwut Master Agreement (TMA) is becoming the Master Agreement of choice Internationally. The reason is that the business demands in Malaysia to modify the IDMA to make it more comprehensive in its application into the global environment in the Middle East due to the current IDMA is not relevant when dealing with the cross border transactions within the IFIs globally. This process is in line with the argument of Gioia, Schultz, and Corley (2000) that IFIs' survival or well-being relies heavily on how the institutions react to the stakeholder's pressures in terms of constructing new plans, developing strategies, and implementing their businesses and Bacha (1999) notes that the innovation of derivatives instruments in IFIs is customising conventional derivatives in line with the structure of the Shariah contract to incorporate the main pillars such as ensuring the business transactions in the event of default or termination events, the exposures of the parties under all outstanding transactions are aggregated and netted.

In countering the debate among the Shariah scholars who reject derivatives, the findings of this study use the CIMB as the bank for the case study, as it introduced the Islamic Profit Rate Swap (IPRS)—as shown in the Figure 6.4 —approved by the Shariah Advisory Council of Bank Negara Malaysia (BNM) and the Securities Commission. Accordingly, two types of Shariah contract structure have been proposed and introduced for the Islamic Profit Rate Swap (IPRS) as part of Shariah-compliant derivatives instruments by the market player in getting approval from the Central Bank of Malaysia (BNM) such as *Bai al-inah* concept and Commodity Murabahah concept based on the tawarruq basis. This modification supports El Gamal (2008) and Khan (2010), which state that IFIs have to create products and services in compliance with the Shariah principles such as risk-sharing, materiality, non-exploitation, and non-financing of sinful activities. In contrast,

CFIs mainly base their products and services on general demands which sometimes conflict with Islamic finance principles.

Looking forward, the IFIs have just assessed their exposure to the potential rate changes and fluctuations. These findings support the studies conducted by Dutton and Dukerich (1991) and Rindova and Fombrun (1999), who claim that the engagement of IFIs with derivative transactions was motivated by Islamic finance business demand to protect shareholder's interests that fit with the available liquidity instruments in the market. Hence, Shariah-compliant derivatives can be seen as an alternative to conventional derivatives instruments in managing and mitigating the business risks many IFIs face worldwide. This finding concurs with Kammer et al. (2015), who states that derivative instruments have become a liquidity and risk mitigation tool for the global financial industry to achieve sustainability of economic growth.

8.4 The Challenges of IFIs in Implementing the SCD

In terms of maintaining IFIs' ethical identity, the findings of this study argue that the Islamic Profit Rate Swap (IPRS), Islamic Cross Currency Swap (ICCS) and Islamic Foreign Exchange Swap (IFXS) are the most common Shariah compliant instruments that being discussed between the market players and regulators.

The findings of this study also show that there are some challenges in using the Shariah-compliant Derivatives as a hedging strategy and its implementations. The first challenge is discrepancy in Shariah jurisdiction. As part of risk management tools in Islamic finance, Shariah-compliant derivatives are considered to contain the element of *Gharar* (uncertainty) by its opponents. Meanwhile, the proponents consider the product to be in compliance with Shariah principles based on the concept of *Tahawwut* (hedging) mechanism of the asset only but is strictly prohibited for speculation and exploitation to get more profit. Therefore, this study suggests that there is a need for a unified, standardized and comprehensive guidelines as reference for all Shariah advisory boards and the guidelines will take into consideration all restrictions and jurisdictions. Thus, Shariah scholars across the globe should interact frequently with each other to understand the rationale of a given Shariah view because standardization of the practices will further strengthen the Islamic finance industry by way of protecting wealth (*Hizf al-Maal*) and mitigate the risks. This view is in line with Obiyathulla's study (2000) which argues that the

hedging strategy is a method to minimise loss from any potential business risks that constantly occurs in the financial industry.

The second challenge is the differences in the legal framework between the three cross-border jurisdictions. In this regard, the findings of this study are illustrated in Table 7.2. suggest an initiation for standardisation of the Islamic derivatives transactions, whereas the parties have tried to minimise the systemic risk and hedging market risk in their cross-border business activities.

The third challenge is the lack of Shariah-compliant derivatives instruments awareness. The findings of this study confirm that public awareness of Islamic hedging products is still low. Hence, this study suggests that Islamic financial institutions could organize engaging workshops on Islamic hedging instruments and move to address any concerns that new potential customers may have prior to signing the agreement.

The fourth challenge is the lack of support from regulators. In this context, this study suggests close-out legislation, and it has been adopted in some countries such as Malaysia, United Arab Emirates, Bahrain, Qatar, Indonesia and Turkey. Accordingly, there is a positive credit development in the financial industry and, more specifically Islamic finance sector. However, the close-out legislation has not yet been implemented in some countries such as Saudi Arabia, Oman, Kuwait and Pakistan.

In order to deal with the above challenges and business demands, this study suggests demystifying Shariah-compliant derivatives beyond the hedging model approach. In this context, this study suggests that IFIs have to ensure the business demands in the market and environmental stakeholder's demands to maintain their attractiveness by structuring 'Shariah-compliant' models with 'traditional' derivatives products. To do so, this study also suggests blended Shariah derivatives with hedging and investment activities such as the Islamic dual currency investment (DCI-i), Islamic commodity hedging (CH-i) Instruments, and Shariah compliant local currency financing (SLCF).

8.5 Conclusion

This chapter has examined the empirical findings discussed in Chapters 5, 6 and 7 in greater detail by comparing and contrasting the findings with those found in prior literature, as elaborated in

Chapter 2, the theoretical framework outlined in Chapter 3, and contextual materials introduced in Chapter 5. Following the introduction in Section 8.1, Section 8.2 discussed the IFI's response to the innovation by modifying the Shariah Compliant Derivatives in dealing with the market risks. Finally, Section 8.4 discussed how the IFIs are managing the issues of maintaining the Shariah complaint as their ethical identity and the business demands as requested by the clients and investors.

8.6 Research Contribution

This thesis provides empirical and theoretical contributions to the literature on Shariah Compliant Derivatives in IFIs. Moreover, it also gives practical implications for IFIs stakeholders, including clients and investors. The underlying frame of Shariah compliant Derivatives, explored in Chapter 3, is the primary theoretical contribution of this research and provides a tool to identify the rationale of why establishes Shariah compliant derivatives in IFIs and the clashes between the business demands and business pressures in maintaining the ethical identity as framed under the basis of Shariah principles. The organizational identity theory is supposed to be a suitable model and helps in understanding how IFIs as an organization react exclusively in response to the demands for business innovation compared to CFIs. From the business demands perspective, there is a force aspect applied with the dynamics of its implementation within IFIs stakeholders, especially clients and investors. In this regard, the IFIs required to follow the market logic and enforced to deal with the derivative transactions and its instruments as a hedging strategy in controlling market volatility based on the Maqasid al-shariah (objective of shariah) of protecting the public interest and wealth (Ameer, 2010).

In replying to stakeholders' demand for innovation, IFIs have to create products and services that comply with Shariah principles such as risk sharing, materiality, non-exploitation and non-financing of sinful activities (El-Gamal, 2008), while CFIs mainly base their products and services on general demands that at times conflict with the principles of Islamic finance (Khan, 2010). Therefore, the engagement of IFIs with derivative transactions was motivated by the business pressure to maintain Islamic finance shareholders' interests in achieving a target performance and to deal with the liquidity management instruments in the market (Dutton & Dukerich, 1991; Rindova & Fombrun, 1999). Moreover, IFIs face tensions between conducting strategic business investments and meeting ethical identity requirements. Blending and modifying the conventional

derivative instruments that with the Shariah compliant structures of *wa'ad* (unilateral promise) and the commodity Murabahah mechanism (a commodity sale and buy-back product with the objective of obtaining cash). The ethical identity model provides two directions for this research: firstly, a deeper review of the existing level of identity refocusing and identity tuning that can be reflected consistent environment with their ethical projections, and secondly, exploring the IFIs' business philosophy process of integration religious principles and business model innovation and modernization approach. The level of ethical identity projections in IFIs, with its business operational complexity, is an enactment process which forces us to consider an alternative approach in delivering the solutions and protecting the Islamic finance stakeholder's attentiveness. In the end, the researcher decided to choose to examine the process of negotiation, translation, and modification of the conventional derivatives instruments in blending and combining with the Shariah principles, and this has enabled me to provide a balanced picture in describing the contradictions in the process of designing the Shariah compliant derivatives as a hedging strategy and solutions in maintaining their ethical identity and consistent with business demands and strategic business investments.

In addition, through the three chapters of the empirical studies, this research provides an empirical contribution that explores the rationale of business pressures and demands that IFIs faced in engaging with the modified derivatives instruments in order to manage the financial risks internally and externally. With an organizational identity perspective as a theoretical lens, this research exposed and described the business demands for derivative transactions for the purpose of hedging strategy and mechanism in justifying the market logic from the Islamic finance stakeholder's outlook to protect themselves from harms (*khatar*) and the impact to IFIs identity as Shariah compliant institution.

This also contributes to filling the gap between business demands and pressures with the ethical identity that exists in terms of the lack of understanding that the Shariah compliant derivatives are beyond hedging strategy and purposes. In line with Abu Bakar (2010), the profit from hedging operations is essential as a part of business activities in the reason that the profits made will offset against any future price fluctuations. Although the core intention of hedging strategy is to decrease the business risks of any losses, the issues start here whether the pure concept of hedging strategy can be used to avoid business risks (Elgari, 2010), eliminate business risks (Abu

Chapter 8

Bakar, 2010), or gains of business opportunity (Rosalan, 1993), or it is purely to reduce business risks only (al-Suwailem, 2006).

In this research supports the negotiation and translation process of conventional derivatives instruments by modifying with shariah principles that became the Shariah compliant or Islamic derivatives that can be used in IFIs. Thus, the process of negotiation Islamic derivatives is very much focused on how IFIs react to protect any types of business losses from unexpected risks (Toporowski, 2000; Clark & Gosh, 2004; Kolb & Overdahl, 2006). The methodological and theoretical perspective of this research are unique in the clashes of business pressure to mitigate the financial risks and self-pressure to maintain the ethical identity of IFIs that blend internal and external perceptions of the research field, to provide and deliver a more comprehensive picture of Shariah compliant derivatives that can be used both hedging and investment activities approach in Malaysian market.

Another contribution can be viewed as a practical one for Islamic Finance stakeholders and the Islamic financial industry in general. The findings of this research might enable IFIs to reflect on their practices and further measure the Shariah compliant derivatives instruments offered through their Islamic treasury salesperson. It would also be valuable for the IFIs globally to engage with the Shariah compliant derivatives as a hedging strategy that aligns with the objective of Shariah (*Maqasid al-shariah*) in avoiding any business risks (Elgari, 2010). The findings have discovered that IFIs cannot refuse unexpected financial risks due to market uncertainty, which might compromise the IFIs in the long run. The creation and designing of innovative Shariah compliant derivative instruments as hedging strategies in harmony with an ethical outlook in the Islamic finance dimension show that this increasingly important industry needs to reflect on the business demands and maintain its ethical identity consistent with IFIs.

8.7 Limitations of the Study

Although this study brought forth meaningful research findings by successfully addressing the research questions, achieving the objectives, and completing the aim of this research, the researcher had to face the following limitations as well as challenges whilst carrying out the research:

- 1) The researcher was keen on conducting some interviews with various Islamic finance

scholars and Shariah Committee members of the selected Banks as well in Malaysia in connection with some additional inputs on the theoretical part of the study. The Islamic finance scholars that the researcher desired to interview and who might contribute their views and expert opinion in this regard. No interviews could be conducted, due to limited time during in Kuala Lumpur, Malaysia.

- 2) The researcher aspired to investigate other Shariah contracts alternative of Shariah compliant derivatives instruments that can be implemented by IFIs in Malaysia. Unfortunately, the regulations still do not exist and cannot be implemented yet. Therefore, the issues relating to the Tawarruq structures in the Shariah compliant derivatives could not be addressed more clearly.

8.8 Recommendations for Future Research

Having discussed the limitations of this study which were identified during the research process, the following are the recommendations and suggestions for the future research:

1. Future studies might expand the scope of the interview by including more Islamic finance stakeholders including Shariah Scholars, academician from different countries such as Indonesia, United Arab Emirates (UAE) and Saudi Arabia, by this means gathering advantageous and valuable information and experiences.
2. Future studies might utilize parametric techniques in order to draw further meaningful, robust and significant inferences from the information provided by various organizations.
3. In addition to the Interview, several interviews with experts in accountant and market risks within IFIs might also be conducted in future studies. This will clearly give the future researcher some realistic and useful suggestions in relation to the Shariah Compliant Derivatives.
4. The marketing and campaign outlook with respect to the promotion of the Shariah Compliant Derivatives instruments as a hedging strategy in managing the balance sheet might be addressed in future studies.

Appendix A List of Interviews

| Interviewee | Gender | Nationality | Education | Affiliation |
|-------------|--------|-------------|-----------|--------------------------------------|
| A1 | Male | American | Master | CIMB Islamic Bank Berhad |
| A2 | Male | Malaysian | Doctorate | CIMB Islamic Bank Berhad |
| A3 | Male | Malaysian | Master | CIMB Islamic Bank Berhad |
| A4 | Female | Malaysian | Master | CIMB Islamic Bank Berhad |
| A5 | Female | Malaysian | Master | CIMB Islamic Bank Berhad |
| A6 | Male | Malaysian | Bachelor | CIMB Islamic Bank Berhad |
| A7 | Male | Malaysian | Bachelor | CIMB Islamic Bank Berhad |
| B1 | Female | Malaysian | Master | Hong Leong Islamic Bank Berhad |
| B2 | Male | Singaporean | Master | Hong Leong Islamic Bank Berhad |
| B3 | Male | Malaysian | Master | Hong Leong Islamic Bank Berhad |
| B4 | Male | Malaysian | Master | Hong Leong Islamic Bank Berhad |
| B5 | Male | Malaysian | Master | Hong Leong Islamic Bank Berhad |
| C1 | Female | Malaysian | Master | Kuwait Finance House Malaysia Berhad |
| C2 | Male | Singaporean | Master | Kuwait Finance House Malaysia Berhad |
| C3 | Female | Malaysian | Master | Kuwait Finance House Malaysia Berhad |
| C4 | Male | Malaysian | Master | Kuwait Finance House Malaysia Berhad |
| C5 | Female | Malaysian | Master | Kuwait Finance House Malaysia Berhad |
| D1 | Male | Malaysian | Master | Standard Chartered Saadiq |
| D2 | Female | Malaysian | Master | Standard Chartered Saadiq |
| D3 | Male | Malaysian | Master | Standard Chartered Saadiq |
| E1 | Male | Malaysian | Doctorate | Bank Negara Malaysia (BNM) |
| E2 | Male | Malaysian | Master | Bank Negara Malaysia (BNM) |
| E3 | Male | Malaysian | Master | Bank Negara Malaysia (BNM) |
| E4 | Male | Malaysian | Master | Bank Negara Malaysia (BNM) |

Appendix A

| | | | | |
|----|--------|------------|----------|-----------------------------------|
| E5 | Male | Malaysian | Master | Bank Negara Malaysia (BNM) |
| F1 | Male | American | Master | Islamic Development Bank Group |
| F2 | Male | Bangladesh | Master | Islamic Development Bank Group |
| F3 | Male | Niger | Doctor | Islamic Development Bank Group |
| F4 | Female | Malaysian | Master | Islamic Development Bank Group |
| F5 | Male | Malaysian | Bachelor | Bank Pembangunan Malaysia Berhad |
| F6 | Male | Malaysian | Bachelor | Employees Provident Fund Malaysia |

Appendix B Interview Consent Form

CONSENT FORM - INTERVIEW

Full title of the research: **The Impact of Shariah Compliant Derivatives as a Hedging Strategy on the Islamic Financial Institutions**

Researcher detail:

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Email: mah1e19@soton.ac.uk

Please tick the relevant box(es)

Yes No

I confirm that I have read and understood the interview guide for the above study and had the opportunity to ask any questions in any stages of the study.

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|

I agree to take part in the above study.

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|

I understand that my participation is voluntary and that I am free to decide not to participate on this study at any time without giving reason.

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|

I agree that the data gathered in this study will be stored in a data centre and may be used for anonymised and future research provided that it will be known only to the researcher and her supervisors. It will be stored in accordance to the 1998 Data Protection Act.

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|

Please tick the relevant box(es)

Yes No

I agree to the interview being noted

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|

I agree to the interview being audio recorded

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|

I agree to the use of anonymised quotes in any type of publications for the follow up of this study

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|

Please sign your consent with full knowledge of the nature and purpose of the procedures. A copy of this consent form will be given to you to keep.

Name of Participant

Date

Signature

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