

Risk Management Methodologies: An Empirical Macro-prudential Approach for a Resilient Regulatory Framework for the Islamic Finance Industry

Abstract

Implementing the most appropriate risk management methodologies and instruments is a key element for a resilient and more stable economics and financial system. Certain risks are unique to the operation of Islamic banking and require a tailored risk approach and framework to address it. Currently, each Islamic bank uses a different risk approach due to regional, regulatory, legal, product and operational requirements that may dictate a certain approach to manage the associated risks. This paper provides an in-depth insight into these risks and how they are assessed and managed in the Islamic banking system within a highly prudential and sophisticated financial market: the UK. This subject is important for two reasons; firstly, the survival of the Islamic banking model is hugely dependent on its risk management approach, secondly, a bank must be able to manage those risks and challenges without compromising Sharia requirements. The research collects its data by using the method of a case study to obtain first-hand knowledge. The study concludes that identifying and managing key risks is crucial for the survival of the Islamic banking system and suggests a five-step risk management framework with some analysis on measuring Sharia non-compliance risk and its impact on the liquidity of an Islamic bank.

Keywords: Risk management, Islamic banking, prudential regulations, Sharia non-compliance risk, risk framework.

1. Introduction

The Islamic banking industry around the world has been growing continuously throughout the last five decades. The number of Islamic banks worldwide has risen from one in 1963 to over 300 in 2014. There are now Islamic banks in more than 75 countries. In addition, the Islamic banking industry's assets with commercial banks globally grew to 1.3 trillion in 2011, with an annual growth rate of 19% over the past four years (Ernst & Young, 2014). Undoubtedly, the future of this industry will depend mainly on how these banks manage different risks involved in their work.

Over the past few decades, risk management frameworks in Islamic banks have attracted attention from regulatory bodies, investors and also academics. The reason behind that attention is that Islamic banks carry the same types of risk as other sorts of banks alongside other specific risks, related only to financial institutions working in a Sharia compliant way (Helmy, 2012).

An attempt is made in this paper to (a) to explain the concept of risk, (b) to identify the most common risks which could affect any financial institution, (c) to focus on specific types of risk relating only to Islamic financial institutions.

1.1 Research objectives

The proposed case study aimed at exploring the real practices of risk management within an Islamic bank that exists in a highly sophisticated and regulated financial centre. The case study focused on risks identifications and management methodologies used by Islamic banks within the UK regulatory framework.

This study has been done as a single case study of Islamic banking in the UK to achieve the following objectives:

- To identify the different types of risks that Islamic banks face in their liquidity modelling.
- To explore how liquidity risks relating to Islamic banks are managed.
- To develop a framework for risk assessment and management in Islamic banks.

2. Research Design and Methodology

The analysis in this paper is based upon a field study conducted in a single UK Islamic bank. We adopt an understanding of field study research according to which, the main task of the researcher is to inquire into a field of practice and to make sense of his or her observations by adductive reasoning, i.e. by moving back and forth between data and theory (Ahrens & Chapman, 2006). This requires, first and foremost, a close proximity to the field (Garfinkel, 1967; Jönsson & Macintosh, 1997).

Thus, in order to identify and understand practice as it happens, argues Schatzki (2005, p. 476), “requires considerable ‘participant observation’: watching participants’ activities, interacting with them (e.g. asking questions), and ideally attempting to learn their practices”. While we certainly cannot claim to have learnt the complex set of practices involved in managing risks with an Islamic financial institution, we feel that we have obtained a rather intimate understanding of what the people in our case study Islamic bank do and why they do it. This was facilitated by the fact that the possibility to carry out the research in the company was linked to our commitment to provide feedback and recommendations at the end of the observation period. This commitment was also a commitment for the company to support us in sourcing the information we required.

The presentation of our empirical findings follows the narrative approach to writing (Czarniawska, 1999), which, in our view, is an adequate means to convey the richness of a qualitative field study. While critics may think of narratives as nothing but storytelling, we would disagree, believing that “once a narrative is understood as a template it is potentially transferable across contexts and can be reinterpreted to become relevant to other settings” (Llewellyn, 1999, p. 225; see also Dyer & Wilkins, 1991). As such, it pleads for a contextual rhetoric of generalisation (Lukka & Kasanen, 1995; see also Flyvbjerg, 2001). To do so requires profound theorising of the empirical data, rather than leaving them as merely rich accounts of the complexity of social life (Ahrens & Chapman, 2006).

The field study was conducted over a period of 18 months on a full-time basis. Few days had programmed activities, but in order to observe daily activities as they went on outside the artificial interview situation and to increase acquaintance with employees and managers and thereby increase access to potentially rich data, a large number of working days were spent at the Islamic bank. Formally, the research is based on a combination of three types of data: risk data and regulatory reporting, archives and participant observation.

The archival and reporting data studies were primarily concerned with the authorisation and reporting documents for the projects and products researched. In the case study Islamic bank, each time a risk reporting was produced, it had to be authorised by the relevant management committee and the board of directors to pass the gate and move on to the next stage. Stages, gates and authorisation criteria were all described in the risk framework process manual, which was also studied carefully.

Data from observation were retrieved in an unstructured and informal manner. A number of risk reporting for projects and department meetings were attended. Outside of meetings, observation took place during normal course of business within the bank setting, chats over the desk, and by overhearing and observing communications and actions of daily operations of the Islamic bank.

3. Case Analysis

Our analysis of risk management practices in the case Islamic bank is informed by empirical material about the risk management process more generally, as well as by data on two specific projects that are prepared annually: Individual Liquidity Adequacy Assessment (ILAA) and Risk Log Reporting, which we hereafter will call “Alpha” and “Beta”, respectively. Alpha was a document focusing on describing the Individual Liquidity Adequacy Assessment (“ILAA”) for the Islamic bank. Alpha is based on the bank’s business plan and strategy and the associated funding plan for a period of five years 2013-2018. Alpha includes an assessment of the risks that the Islamic bank faces in ensuring self-sufficiency and liquidity adequacy, liquidity cash flows and results of stress testing, as set out in the requirements of BIPRU 12. Beta was the risk control and reporting framework for different risks that the case Islamic bank monitors including Sharia non-compliance risks associated with its operations.

I. Alpha Analysis

3.1 Natures of risks in Islamic banking:

The basic principles underpinning Islamic banking are the sharing of profit and loss, and the prohibition of *Riba* (interest), of exploitation and the financing of sinful activities. Ownership of wealth, in the Islamic financial system, is not an end in itself but a means to provide a

decent life for a person, his/her family and to promote the well-being of society at large (Noor & Ahmad, 2012).

Islamic banks work in the same way as conventional banks in terms of providing finance for their customers and seeking to generate profit. Nevertheless, Islamic banks do not lend money to their customers. They use various Islamic finance principles in order to earn profits and provide customers with financial support. Consequently, these types of banks face risks which related to all types of banks as well as special types of risk specifically related only to Islamic banks (Boumediene, 2011).

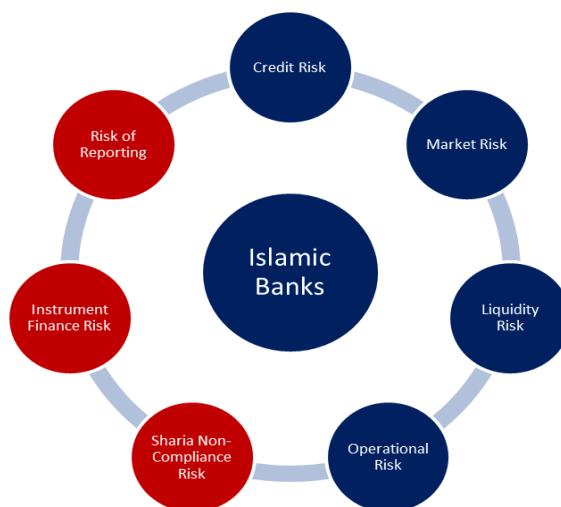
Types of risk for both Islamic and conventional banking:

- Credit Risk (the risk of a counterparty failing to meet its obligations in a timely manner)
- Market Risk (risks common to an entire class of assets and liabilities due to economic changes or external events)
- Liquidity Risk (risk that arises from the difficulty of trading on asset and difficulty in obtaining funding at a reasonable cost)
- Operational Risk (risk associated with the potential for systems failure in a given market)

Types of unique risks for Islamic banking only:

- Sharia Non-Compliance Risk (failure to comply with Sharia)
- Instrument Finance Risk (related to unique finance principles used by Islamic banks)
- Risk of Reporting (reporting all types of risk and particularly Sharia non-compliance risk)

Figure 1: risk profile of Islamic banks



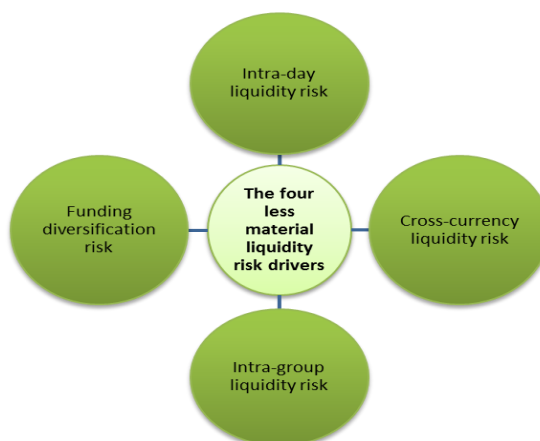
3.2 Liquidity risk drivers

In order to determine how and why its liquidity changes under the stress tests prescribed in BIPRU 12.5, the case IB's management has assessed the liquidity risks by the following ten liquidity risk drivers. Six have been identified as the main liquidity risk drivers that affect the Bank under stress and four as less material liquidity risk drivers.

Figure 2: the six main liquidity risk drivers



Figure 3: the four less material liquidity risk drivers



For each of the risk drivers considered to result in potential net cash outflows, the case IB has performed quantitative and qualitative analysis to determine the timing and quantum of net cash outflow that could result. The remainder of this section discusses alpha by reflecting on each of the risk drivers, in the order outlined above.

3.2.1 Wholesale funding risk

The case Islamic Bank's (IB) strategy to access greater levels of non-Retail funding requires the Bank to complete more detailed assessments, which consider the likelihood of outflows occurring from its funding sources in both normal and stressed operating environments. The funding inflows expected within this strategy will be sourced through corporate and wholesale sources as well as SMEs over the five-year planning period.

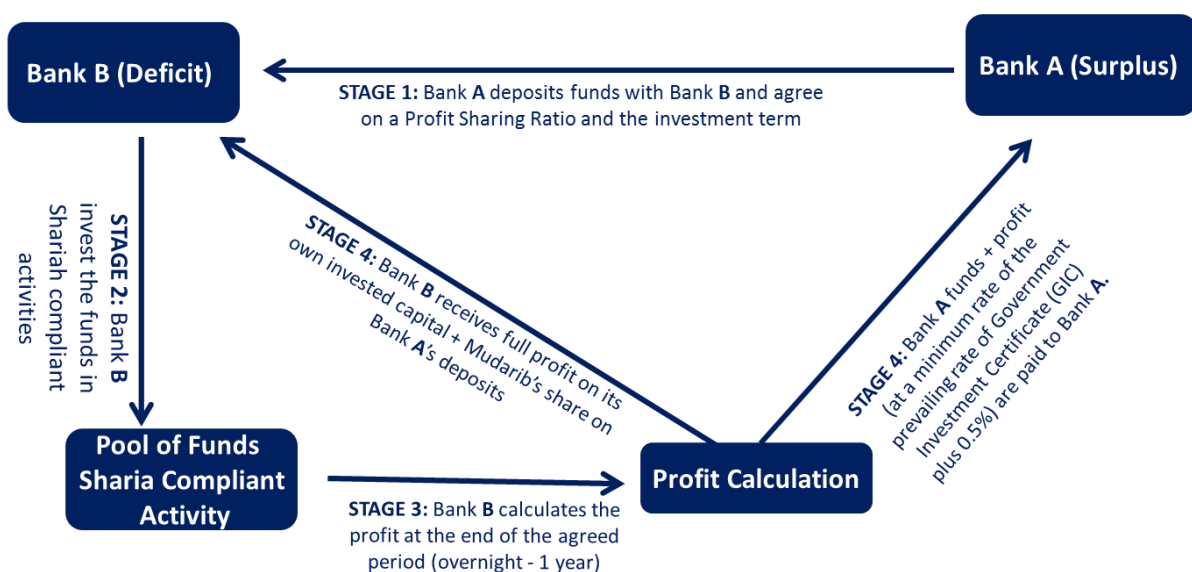
These funds will be sourced from the market, particularly from institutions seeking a Sharia-compliant location for their excess liquidity at a good profit level. Through this long-term debt issuance, the Bank's funding maturity profile will be contractually elongated to increase the level of stability for its asset growth.

These entities will all offer varying levels of liquidity risks as a result of the products used to attract funds in that market, in addition to customer specific behaviors that need to be addressed. These factors will be discussed further in the sections below.

This will also bear an element of credit risk. According to IFSB “the credit risk is the potential that counterparty fails to meet its obligations in accordance with agreed terms.” This definition is applicable to any Islamic institutions offering financial services (IFSB, 2005).

Conventional banks bear credit risk in most of the products they provide, and that is usually as a result of the relationship between the banks and the clients. It is frequently argued that Islamic Financial institutions have a higher degree of credit risk in comparison with conventional banks. This is mainly based on the belief that Islamic financial institutions do not have enough tools to deal with this type of risk. Many principles are used by Islamic banks for providing financing to their customers including, but not limited to, Musharaka, Mudaraba, Ijara and Murabaha (Elgari, 2003). The chart below describes the Mudaraba interbank money market.

Figure 4: Mudaraba interbank money market



Commodity Murabaha is one of the most popular modes used by Islamic banks to manage the problem of liquidity. It is based on commodity Murabaha and is generally used for the buying and selling of commodities to a third party on a Murabaha basis, with a maturity from one week to six months (Abdul Majid, 2003).

3.2.2 Retail funding risk

The case IB continued to acquire funding via deposits from retail customers and, as such, is exposed in the event of any uncertainty affecting the viability of the Bank, or, wider concerns about the banking sector in general. Nevertheless, management believes that a sound retail base provides a more stable source of funding in the event of either an idiosyncratic or market-wide stress event, due to the underlying deposits having a lower propensity for withdrawal than those taken from more sophisticated non-retail funding providers who may also have funding problems of their own. Retail funding risk is most severe under the combined stress test scenario and least severe under the market-wide scenario. The case Bank expects the increased business strength and customer exposure obtained through the acquisition, to increase the customer liability base without forfeiting increased levels of margin.

3.2.3 Intra-Day Funding Risk

Intra-day funding risk for the case Bank relates to the collateral required to maintain the payment and settlement systems used by the Bank, namely the relationship held with its correspondent bank. The Bank holds an amount of £1.5m to maintain this system and should any increased cash flow requirements materialise, extra liquidity would be sourced from the buffer in place. These cash flows have already been accounted for within the stressed outflows for the other areas of liquidity risk.

3.2.4 Intra-Group Funding Risk

As the case Bank does not make any reliance on direct funding from its majority shareholder and will hold no intra-group liquidity modification, the Bank will not need to consider any intra-group funding risk for reliance on funding. The bank will also not be exposed to any liquidity calls from any contractual agreements with this shareholder consequently holding no additional liquidity.

Through developing the relationship between IB and its shareholder, any opportunity for a committed funding line to become available with its parent will be explored with consideration given to its contractual nature and the necessary independent governance structure in place.

3.2.5 Off-balance sheet risk

As the case IB has significant financing expectations over the 5-year planning period, its pipeline will be the preliminary driver for its off-balance sheet risk. The Bank expects to fully meet any contractual commitment it has made prior to any stress period which should ensure no legal action is received. This will also mean that there is no franchise viability risk through the negative perception customers may have of a bank that refuses to meet its financing commitments.

3.2.6 Marketable assets risk

The case IB holds marketable asset risk through the purchase of BIPRU 12.7 assets and other GCC sukuk (Sharia compliant alternative to bonds). However, for the Bank to use these assets to meet cash flow requirements under stress scenarios, a haircut is applied to the market value which represents the likely decrease in value as a result of the existing instability. The level of each haircut applied will be aligned to Prudential Regulatory Authority (PRA) guidance or, where no

such guidance exists, based on the guidance from Basel on Level 1 and Level 2 assets. The value of this haircut will equate to the additional marketable asset risk held by the Bank.

3.2.7 Non-marketable assets risk

Non marketable asset risk recognises any risk that is present by the case IB relying on asset flows from those assets considered to be non-marketable. Non marketable wholesale assets comprise Treasury interbank placements and retail non-marketable assets in the form of residential and commercial financial arrangements as well as business finance assets, although these do not form a significant part of its balance sheet. These mortgage assets effect the Bank's liquidity position on a daily basis through origination or redemption and are managed through targets outlined in the Bank's corporate objectives.

3.2.8 Franchise viability risk

Franchise viability risk is the risk that the Bank may not have sufficient liquidity resources to maintain its core business franchise. Franchise viability risk will focus specifically upon the Bank's strategy to maintain its profit rates on all term deposits. Should the Bank decide to allow its profit rates to fall below the rates agreed at the outset of the term, the customer is eligible to remove their funds immediately. In order to minimise the liquidity risk within this scenario, the case IB is committed to fulfilling the profit rate offered at the outset of the deposit so as to not allow a customer to activate this clause. This management strategy could undoubtedly be to the detriment of the profit and capital base of the Bank which has been considered in the ICAAP, based on the assumption that profit rates are maintained throughout the planning horizon.

3.2.9 Funding concentration risk

The case IB's strategic review has allowed the institution to increase its exposure to non-retail funding sources which has naturally reduced the Bank's reliance on retail funding acquisition which has in turn minimised any potential funding concentration.

The Bank aimed to hold its funding across a range of maturity dates creating a balanced maturity profile that will allow the Bank to actively manage the maturities to drive up retention at maturity. This will also allow adequate management of liquidity outflows in a stress period.

The source of this non-retail funding will also originate from a number of different sectors including corporate, wholesale and SME and from across the UK and the GCC. These can be further differentiated into the industries from which the funding originates, which is expected to include a variety of institutions including pension funds, manufacturing companies, property developers and utilities companies.

3.2.10 Cross Currency Risk

Although the case IB's retail business continue to focus on growing sterling-denominated finance assets funded by retail sterling deposits, the case IB will have a requirement to invest in a Liquid Asset Buffer (LAB) that is denominated in US Dollars and will also engage in purchases of USD - denominated GCC sukuks which will be held as part of its Investment Portfolio. In such instances these assets will be funded by USD liabilities or through a Sharia compliant FX Forward facility to avoid any cross-currency risk.

4. Stress Testing

The Board of the case IB approved liquidity risk appetite states that the Bank will have sufficient liquid resources to survive a combined market wide and idiosyncratic stress event

for a period of 90 days. The background to, and results from the stress testing are outlined below.

The case IB carries out liquidity stress testing monthly and reports the results to Assets and Liabilities Committee (ALCO). ALCO reviews the results and discusses any issues arising from the monthly results. ALCO minutes are made available to the Board. As part of this monthly reporting, the Bank completes the three PRA prescribed stress tests (idiosyncratic, market-wide and combined scenarios). In addition, the case IB carries out three internal stress tests; Sharia non-compliance, an economic downturn scenario event with the final stress event focusing on any impact to the Bank created from a stress event originating within the GCC due to its exposure to that region. Outflows for each scenario are determined by applying a set of assumptions to the contractual cash flow position over a 2 week and 3 month period; where applicable.

4.1 Stress testing approach

The case IB's approach to stress testing is to apply the assumptions for each stress scenario to a contractual maturity profile provided by the cash flow analysis used by treasury department in its day-to-day management of liquidity. Specific management actions are applied to the resulting stress cash flows where required to ensure that the Bank can meet its liabilities as they fall due.

The contractual maturity profile is obtained from the cash flow planner, a spread sheet based application that is used to record daily inflows and outflows arising from maturing assets and liabilities. It is updated daily to record the timing of all expected future cash flows of the Bank, to monitor maturity mismatch, and to ensure that Treasury activity undertaken does not result in limits being breached.

Table 1: Combined stress scenario – cumulative stress positions

Stress Testing	30-Nov-12		28-Feb-14	
	2wks £m	3mths £m	2wks £m	3mths £m
Combined Stress				
Retail Funding Risk	-15	-31	-15	-34
Wholesale Funding Risk	-0	-2	-2	-6
Intra-day Liquidity Risk	-2	-2	-2	-2
Funding Concentration Risk	0	0	0	0
Off-balance Sheet Risk	-3	-20	-6	-38
Franchise Viability Risk	0	0	-19	-19
Non-marketable Assets Risk	0	0	-45	-45
Marketable Asset Risk	0	0	0	0
Intra-Group Risk	0	0	0	0
Cross Currency Risk	0	0	0	0
Total Outflows	-20	-57	-88	-144
Cash Inflows	82	82	139	143
Net Position	63	25	50	-1
LAB (Break-clause Treasury Assets + Sukuk)	50	50	93	93

Other Liquid Assets (15% Haircut)	-	-		11	11
Position after LAB & Other Liquid Assets	113	75		154	103
Maximum Net Cash Outflow in Period	-0.3	-0.3		-	-0.9
Survival Horizon (days)	>180 days			>180 days	

Notes:

- i. Total outflow: Sum of stressed cash outflows resulting from all applicable risk drivers under each scenario.
- ii. Cash inflows: Inflows comprise maturing deposits placed with other banks and repayments from retail financing. They do not include treasury assets included in the liquid asset buffer.
- iii. Table totals and sub-totals include effects of rounding.

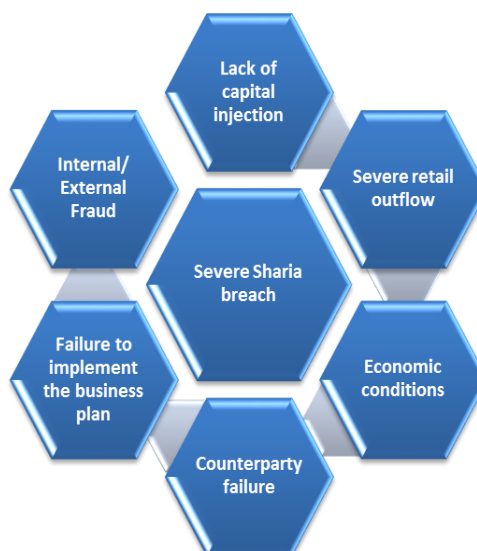
4.2 Recovery and Resolution Plan (RRP)

The case IB updates its Recovery & Resolution Plan (RRP) in accordance with the Prudential Regulatory Authority's (PRA), "RRP Information Pack". The RRP forms part of the Bank's overall Risk Management Framework and follows the Modular structure recommended by the Information Pack. The recovery elements of the RRP (Modules 1-2) are updated on an annual basis as part of the overall review of the Risk Management Framework.

This RRP is designed to set out the Bank's plans for the recovery from an event of severe stress which has a major impact upon the Bank's liquidity and/or capital. In the event that the Bank is unable to recover from this event, the resolution plans set out the subsequent actions required to resolve the situation and avoid the Bank's stress from having a wider market

impact on the stability of the financial framework. The RRP covers the following stress scenarios as shown the diagram below.

Figure 5: RRP covers stress scenarios



The case IB has also modelled the recovery options for each of the scenarios. Overall the Bank is of the view that the arrangements in place would enable the Bank to recover from a severe stress event which impacted capital and/or liquidity.

4.3 Stress Test Scenarios

The six liquidity stress events considered by the case IB have been summarised below:

4.3.1 Idiosyncratic liquidity stresses

The first stress is specific to the Bank. This test covers a scenario in which, a rumour arises that the case IB is in financial distress. As a consequence, the financial market and retail depositors perceive it to be unable to meet its liabilities as they fall due lasting for a period of two weeks.

4.3.2 Market-wide liquidity stress

This stress considers an unforeseen short-term market wide dislocation that gradually evolves into a long-term, market-wide stress, where there are widespread concerns about the solvency of financial sector firms and uncertainty about the value of financial assets. As a result, there is likely to be a high degree of illiquidity in financial markets for a period of two weeks, followed by a gradual improvement in market conditions over a period of three months from the inception of the stress. In our example a counterparty of the case IBB causes severe disruption to wholesale and corporate markets primarily as well as to retail and SME markets.

4.3.3 Combined idiosyncratic and market-wide liquidity stress

This stress considers a combination of the market-wide and Bank specific stresses detailed above. This stress covers a period of three months of which the first two weeks comprise a sharp and severe idiosyncratic shock coupled with a severe market wide liquidity impact, followed by gradually improving market conditions and an easing of the idiosyncratic shock out to three months.

4.3.4 Sharia non-compliance liquidity risk

This stress assesses the possibility that one or more of the case IB's deposit products or customer financing products are considered Sharia non-compliant, as a result of allegations made by a respected external Sharia scholar. Analysis has been undertaken by marketing department of the Bank to split customer base by strength of adherence to religious beliefs and applied accordingly to estimate the impact of retail outflow.

a) Sharia Non-compliance Stress

The case IB has many controls in place to ensure Sharia compliance in its practices. The Sharia Compliance Officer oversees all operations on a daily basis and there is a Sharia sign-off process in place for all of its products and services. In the event that the Bank was deemed non-compliant because of an external fatwa being issued, or indeed for any other reason, the case IB’s Sharia Supervisory Committee, which comprises of eminent scholars, would issue a statement refuting such opinion. There will be a small time delay before such action takes effect and it is the Bank’s opinion that some of the more religiously inclined mass market customers may look to withdraw their funds and invest elsewhere. It is believed that the HNWI, who tend to be more financially sophisticated, will assess the situation and in all probability await the IB’s response.

Given its internal controls and procedures the Bank felt that if an external fatwa was issued it was more likely to be on one product only rather than applied indiscriminately and for prudence decided to assess the impact of an external fatwa on Wakala deposits as this is IB’s largest deposit type.

A poll conducted on 67 of IB’s Muslim customers identified the following product preferences:

Table 2: Customer base by strength of adherence to religious beliefs

Only use Islamic Finance products	Use Islamic and Conventional Products	Only use Conventional products	Total
15%	68%	17%	100%

Referring to the Muslim customers that said they would only use conventional products it has been assumed that they either misunderstood the question or failed to appreciate that IB’s products are

Islamic rather than conventional so for the purpose of this analysis it has been assumed that 85% use both.

The case IB categorized HNWI clients as those where the relationships were more acutely managed and defined its HNWI client base as the top 500 customers based on the number of branches, business development managers and other key relationship managers who maintained such relationships.

Under an external Sharia non-compliance stress the Bank has applied a stress of 10% for this actively managed segment as it is felt that the vast majority of these customers would be persuaded to await the IB's Sharia Supervisory Board's response to any external fatwa that was raised and given the credentials of the IB's scholars, which may have attracted these customers to the bank in the first place, this would almost certainly allay customer concerns. For the remaining balance of Wakala depositors (this is because the case IB depends in its medium and long term funding on products based on the Wakala Islamic finance principle) the Bank has applied a stress of 50% to the 15% of customers that only use Islamic finance products, as not all customers would be disaffected by the opinion of an external scholar, and a 25% stress to those that use both products despite the fact that they are happy to have non-Islamic accounts elsewhere. Consequently a 28.75% stress would then apply to non-HNWI Wakala customers.

According to IFSB, Islamic banks should have in place adequate systems and controls, including a Sharia Supervisory Board, to ensure compliance with Sharia rules and principles. This type of compliance is considered very important in relation to other types of risk, as in the event that Sharia non-compliance occurs, that will have an affect on some activities which had been done by the Islamic bank and the income generated from those activities will be considered as non-Sharia compliant income (Izhar, 2010).

Consequently, a failure in compliance with Sharia will result in the deterioration of the Islamic bank's reputation and that could encourage the customers to withdraw their money and the final result will be a liquidity crisis (Hamidi, 2006). In order to protect the bank's reputation, it has been proposed that each bank should ensure that its products are Sharia compliant at all times (Greuning and Iqbal, 2008; Iqbal and Mirakhor, 2007).

4.3.5 Economic downturn stress

An economic downturn has some if not all of the following features:

- Negative or very low economic growth.
- Rising unemployment.
- Falling asset prices – shares and house prices.
- Low consumer and business confidence.

These economic indicators are monitored by the treasurer of the Bank and such data is incorporated in the ALCO information pack revised at the monthly ALCO meeting. In such an event, the case IB considers the impact of payment arrears for all of its retail asset classes.

4.3.6 Impact on the Bank from a stress event impacting the GCC

This stress assesses the potential that an event originating within the GCC would create a stress of some kind within the Bank. This stress would focus on the likely impact felt by the Bank's retail and non-retail customer base and any ensuing outflows expected as a result of this. Any crisis of confidence to occur within the GCC such as questions over the longevity of its natural resource reserves may force questions to be raised over liquidity leading to outflows felt on funding within the Bank.

Should a crisis of confidence to occur within the GCC, for example due to questions over the longevity of its natural resource reserves this may force institutions to question the level of

spare liquidity they hold and the location of these funds. As the Bank is looking to secure long term funding from the majority of its non-retail funding base, these conditions may not be suitable for customers and these expected roll-overs may not materialise.

The case IB also considered the likelihood of a liquidity stress in the event of the Bank not being able to meet its target profit rates on its Wakala investment deposits and this is reviewed monthly at both the Profit Allocation Committee and ALCO. In this scenario the Bank has the option to pay target profit rates out of capital to avoid any short term stresses. Thus, such an income shortfall would also have to be associated with an event that would prevent capital from being available to use as an interim measure. Such a scenario would be limited to a sudden, severe default rate across the home finance book of in excess of 45%. This scenario is considered highly remote and therefore no stress testing has been performed on the likely liquidity impact.

Additional stress scenarios can be added by either the chief financial officer or treasurer of the Bank, subject to ALCO ratification of the scenarios. A scenario cannot be removed from testing, without prior authorisation by the Bank's ALCO.

5. Conduct Risk

Conduct risk is defined by the Financial Conduct Authority (FCA) 'any action of an individual bank or the banking industry that leads to customer detriment or negatively impacts market stability.' The IB case approach to conduct risk is aligned to the FCA rules and Sharia governance. Key symptoms of conduct risk are poor consumer outcomes, risks to market integrity and ineffective competition in financial markets.

Figure 6: Key drivers of conduct risk



5.1 Inherent factors

A range of inherent drivers of conduct risk interact to produce poor choices and outcomes in financial markets. These drivers are a combination of supply-side market failures (e.g. information problems) and demand-side weaknesses (e.g. biases), which are often exacerbated by low financial capability among consumers.

5.2 Structures and behaviours

Structures, processes and management (including culture and incentives) that have been designed into and become embedded in the financial sector, allowing firms to profit from systematic consumer shortcomings and from market failures.

5.3 Environmental factors

Long-running and current economic, regulatory and technological trends and changes that affect the factors above are important drivers of firm and consumer decisions.

A five-step approach to Conduct Risk Management used by the case IB:

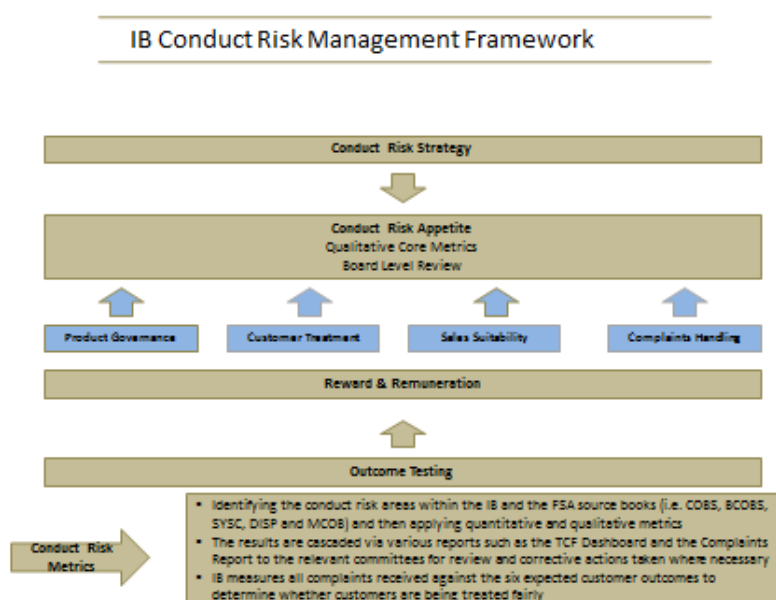
- **Step 1:** Start by understanding what Conduct Risk means for the IB
- **Step 2:** Engage senior management
- **Step 3:** Integrate Conduct Risk management into the way you work
- **Step 4:** Integrate Conduct Risk management into digital and organisational transformation
- **Step 5:** Monitor conduct risk outcomes – product, training & competence, selling, reward structures etc.

II. Beta Analysis

Beta section provides analysis of the risk management and its different steps. It also analyses its main findings of the case IB towards a risk management approach.

5.4 IB Conduct Risk Management Framework

Figure 7: Conduct risk management framework



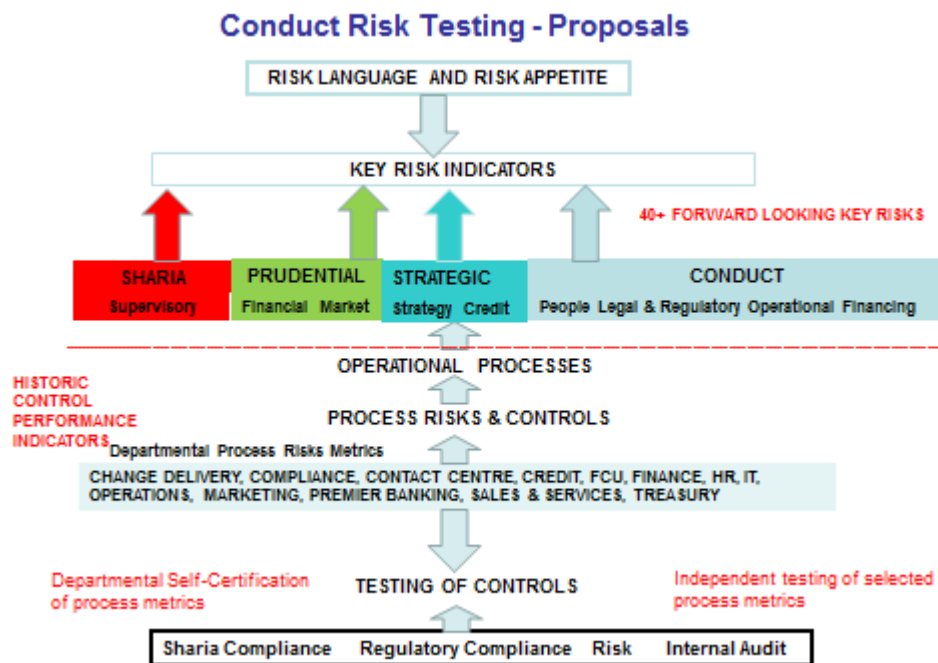
5.5 Conduct Risk Management Existing and Future Risks

Table 3: Conduct risk management, existing and future risks

Existing Conduct Risk Testing	Future Conduct Risk Testing
<ul style="list-style-type: none"> • Independent testing performed by Internal Audit and Compliance • Monthly reporting by departments of performance including some metrics • Management Committees all have comprehensive data reporting packs • No formal linkage into the Risk Register • No formal departmental self-assessment • Three months risk indicator data acts as a point in time • Risk Register KRI data is historic point in time • Forecasts to drive key concerns and testing priorities • Risk Register currently has: <ul style="list-style-type: none"> ➤ 290 Risks, 291 Risk Indicators (RI's), 401 Metrics, 467 Controls ➤ There are too many to be effective; • No formal on-going testing of prudential (Treasury & Finance) risks & controls 	<ul style="list-style-type: none"> • A new Risk Register to develop an integrated framework for testing and reporting • A streamlined set of departmental Risk Indicators and Metrics • Completed each month and act as a departmental certified set of metrics • Demonstrate whether risks are managed and controls are effective • The metrics will be used by Compliance, Risk and potentially Internal Audit • Drive Compliance, Risk and Internal Audit testing • The risk indicators will be control based and separate from: <ul style="list-style-type: none"> ➤ Forward looking and predictive KRIs; • RI's and KRI's will be used as a basis for the preparation of Monthly Dashboards • As a next step the RI's should link into Management Committee reporting packs

5.6 Conduct Risk Testing Framework – Proposals

Figure 7: Proposed conduct risk testing framework



6. Risk Reporting

According to IFSB “the Islamic financial institution should maintain a comprehensive reporting process for all the risks of the organisation. The reporting process should cover all internal and external risk reporting requirements, including how relevant and reliable risk information is captured at the appropriate level of detail for each level of user, including operational management, the risk management committee or equivalent body, the BOD, the Sharia board, and any required public or regulatory reporting” (IFSB, 2013).

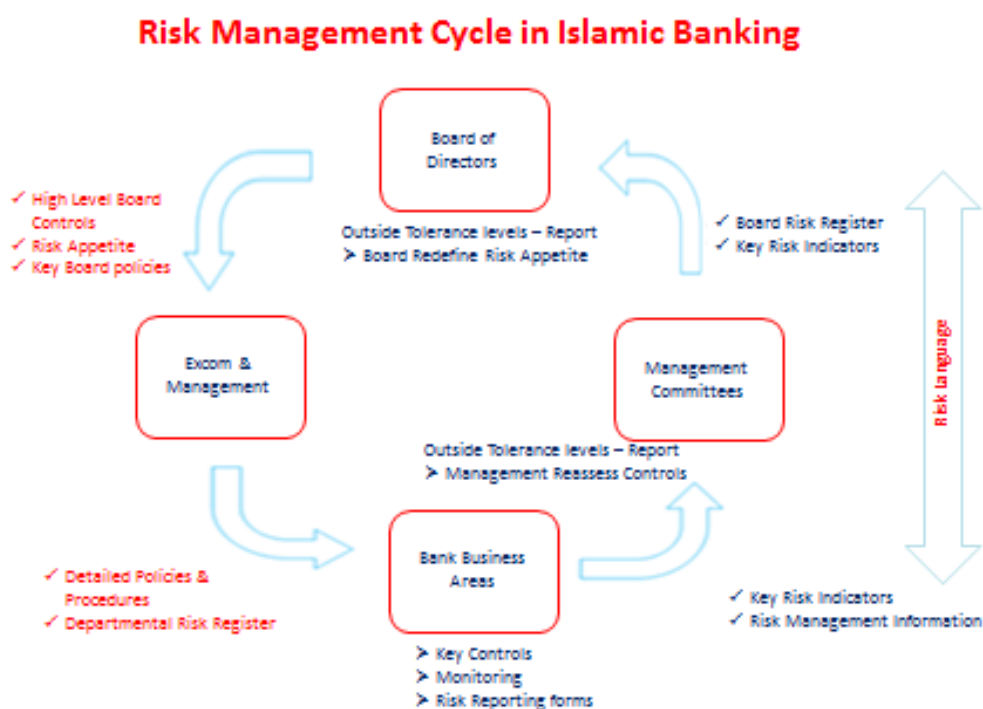
A Risk Management Framework (RMF) describes an Islamic bank’s approach to risk management. The framework is usually established to ensure that risks are appropriately managed throughout the organisation.

Components of the risk framework:

- A risk focused governance structure;
- Risk identification and reporting;
- An internal control framework.

6.1 Proposed risk management cycle for IB

Figure 8: Proposed risk management cycle for IB



Islamic banking managers may follow a five stage process to manage risks in order to support the Risk Management Framework:

- identifying risks;
- assessing risks;
- addressing risks;
- reviewing and reporting risks; and
- communication and learning.

Figure 9: Risk management process



7. Proposed risk assessment framework for IB

Table 4: Proposed risk assessment framework for IB

RISK CATEGORY (See Risk Language)	RISK (what can go wrong or prevent us from achieving objectives)	PROBABILITY (INHERENT LEVEL) (see criteria)	IMPACT (INHERENT LEVEL) (See criteria. Also, describe all potential consequences)	EXISTING CONTROLS (What is in place to mitigate the risks identified)	PROBABILITY (RESIDUAL LEVEL) (see criteria)	IMPACT (RESIDUAL LEVEL) (see criteria)	COMMENTS (Your assessment on adequacy of existing controls, recommendations for improvements in controls/process, any other relevant comments, etc.)
EXAMPLE	Non-Sharia compliance risk.	Medium Low	High	<ul style="list-style-type: none"> Sharia compliance review and sign off of the master agreement. 	Low	Low	Overall risk rating is low as existing controls are effective.
Level 1:							
Sharia non-compliance	Commodity trade counterparty placement		This could lead to IB and customers being exposed to loss. Also, the transaction would be void. The Bank could no longer use certain trade transactions.	<ul style="list-style-type: none"> Sharia compliance sign off of the trade process. 			
Level 2:			Financial and reputational damage could follow.	<ul style="list-style-type: none"> Highlighting key Sharia controls for undertaking each transaction. Regular Sharia compliance monitoring and audit. 			
Sharia requirements							
	Risk 2						
	Risk 3						

8. Conclusion

There are different types of risks for conventional and Islamic banks. Islamic banks face a higher risk as compared to conventional banks especially in credit risk, operational risk and liquidity risk. Also, Islamic banks face special types of risk such as Sharia non-compliance risk, risk relating to individual Sharia principles and risk of reporting.

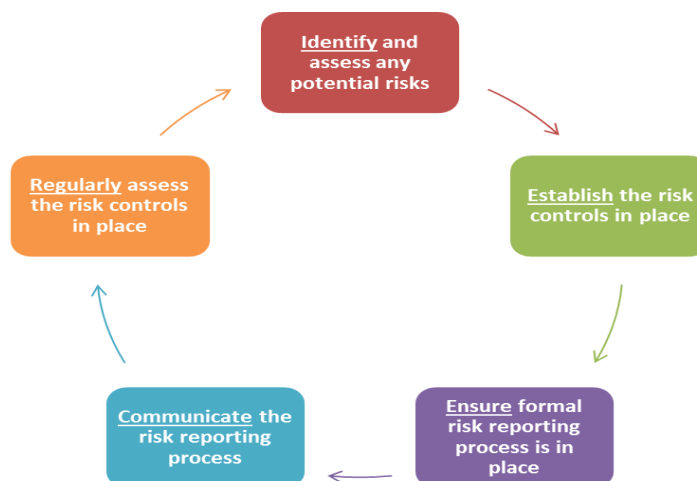
In this study, we have focused on many significant types of risks with their implications on Islamic banks. Alpha detailed the risks associated with the operations of Islamic banks and Beta dealt with the different ways of managing and reporting risks. It is clear that some risks are very unique to the operations of Islamic banking such as the IB being perceived as being not compliant with Sharia or one or two of its products being in breach with Sharia. This constitutes a great reputational risk for IB and will have an impact on its liquidity, which eventually may result in a failure of the IB.

These risks can be mitigated by different ways of managing and reporting such risks. The threshold of these risks can be kept very low if the IB maintains appropriate risk controls and reporting in place, with early warning indicators in order to manage any risk adequately. This risk management framework goes both ways, top to bottom, by governance and board committees to reflect a risk aware culture with the IB, and bottom to top where staff on a lower management level are able to identify a risk or a potential risk and report it through the right channel in place, in order to be addressed by the risk control framework.

The more robust the risk control and risk management framework in the IB, the fewer the risks that it may suffer and the impact of any such risks. It is not enough for the IB just to have a framework for risk management; it should also ensure that staff on all levels are trained and aware of the process. This will create a risk aware culture within the IB, which will contribute substantially to the risk control process. This process could be summarised as

follows, 1. Identify and assess any potential risks that the IB is exposed to, 2. Establish the risk controls in place, 3. Ensure formal risk reporting process is in place, 4. Communicate this process to all staff to establish a risk aware culture within the IB, 5. Regularly assess the risk controls in place through different stress testing and audit.

Figure 10: Risk control framework for Islamic banks



The five steps approach to risks mentioned above, if followed correctly, would provide any IB with a shield that protects and prevents a potential failure of the IB that could result from any identified risks. It could also mitigate or at least minimise the impact of any unidentified risks that may hit the IB.

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