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Journal of Islamic Banking & Finance

Global Perspective on Islamic Finance

INSIDE ...

Promoting Islamic finance

Islamic Gold Dinar :A Socio-Economic &
Regulatory Analysis

Understanding Riba and Gharar in
Islamic Finance

Managing Risks in Islamic Finance

Adoption of AAOIFI Shariah
Standards: Case of Pakistan

News Monitor



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Editor's Note

Islamic banking institutions are taking strong roots all over the world including Europe, United States and the Far East. Islamic banks showed strong resilience during the Global Financial Crisis of 2008 and significantly contributed to financial and economic stability gaining global recognition and now Islamic finance is one of the fastest growing segments of the global financial industry as per the Global Islamic Finance Report 2014. The Global Islamic banking assets were estimated to be US\$ 1.813 trillion at the end of 2013. The D-8 economies, due to the Global Financial Crisis are faced with most difficult economic challenges in recent history. The D-8 countries growth rates fell sharply, therefore increasing unemployment and deprivation adding to their financial and fiscal stress. As a result, poverty reduction efforts also received a severe blow. Islamic system of finance may provide answers to the multi-faceted problems of an interest based financial system. The assets of the bank and financial institutions, practicing Islamic finance, have now reached on impressive US\$ 1.8 trillion approximately. Worldwide 375 banks and financial institutions practice dedicated Islamic finance, while another 110 conventional banks and financial institutions offer Islamic banking windows. Islamic finance is experiencing tremendous growth around the world and Malaysia is a power house in its own right, identified by Ernst & Young as one of the most important markets to further globalization of the Islamic banking industry. Malaysia is one of the six import markets for Islamic banking industry alongside Qatar, Indonesia, Kingdom of Saudi Arabia, United Arab Emirates (UAE) and Turkey. Ernst & Young referred collectively to these countries as QISMUT in their world Islamic banking competitiveness report 2013-2014.

The Globally listed and traded Islamic Sukuk market has expanded rapidly in the last 8 years to reach nearly US\$ 500 billion mark. These are very encouraging signs as Islamic finance explores new markets and is no longer confined to Muslim countries. Total Sukuk issuance for 2013 stood at approximately US\$ 120 billion and the Sukuk market is likely to sustain double digit growth in the coming two to three years with assets in Islamic finance expected to reach US\$ 2.8 trillion by 2015. Sukuk is a useful and an effective tool for financing infrastructure and developmental projects hence provides developing countries like Pakistan an opportunity to use this instrument to attract investment. Islamic capital market, mutual funds and Takaful industry are also very important components of Islamic financial system and need to be nurtured and developed along with Islamic banking.

Islamic banking in Pakistan has witnessed significant growth during the last decade and now constitutes over 10 percent of the country's banking system with an asset base of above Rs. 900 billion and network of more than 1100 branches. This expansionary trend is likely to continue and the industry is well set to double its market share by 2020. The human resources base is becoming a major constraint in the expansion of Islamic banking, individuals who are trained and competent in basic banking as well as Islamic jurisprudence are limited in supply. A London based Islamic financial advisory company, Edbiz consulting, has formulated the Islamic finance country index (IFIC) which ranks about 50 countries of the world in terms of their role in developing, promoting and advocating Islamic banking and finance. Pakistan comes after eight countries, namely Iran, Malaysia, Saudi Arabia, Bahrain, Kuwait, United Arab Emirates (UAE), Indonesia and Sudan.

This issue of Journal of Islamic Banking & Finance documents scholarly contributions from authors around the globe. Contributions in this current issue discuss the theoretical underpinnings of an Islamic economy, contemporary issues in Islamic finance and performance based empirical studies on Islamic banking and finance. Below, we introduce the research contributions with their key findings that are selected for inclusion in this issue.

In our first article, ***Promoting Islamic Finance***, Dr. Ishrat Hussain, former Governor of the State Bank of Pakistan and now the Dean/Director of IBA University of Karachi, discusses the reasons for its growing popularity and the areas of Islamic finance that need to be addressed to make it a viable option.

Next, Imran Minhas in his article, ***Managing Risks in Islamic Finance*** tells us why an effective risk management structure is mandatory for a strong Islamic capital and money market in wake of the popularity of Islamic finance world-wide.

The next article is ***Islamic Gold Dinar - Socio-Economic and Regulatory Analysis*** by Prof. Dr. Mohd. Ma'sum Billah who discusses the flaws in paper money system and proposes the possible implementation of gold currency in the contemporary reality.

This is followed by an article written by Camille Paldi, ***Understanding Riba and Gharar in Islamic Finance*** in which he discusses both these concepts and their different types in detail, why these are forbidden and what the actual practice in the world of Islamic Finance is currently.

The fifth paper is on ***Adoption of AAOIFI Shariah Standards: Case of Pakistan Investment Sukuk***. AAOIFI is one of globally recognized international bodies that prepare Shariah based accounting standard for the Islamic financially industry. AAOIFI based standards are generally considered globally acceptance and are adopted in various jurisdiction of the world. This article explains the different types of companies and how AAOIFI Shariah standards apply to each.

Our next article is based on the research done by Muhamad Abduh and Magomed Idrisov. ***The Role of Awareness and Perceived Values upon the Acceptance of Islamic Banking in Dagestan***, measures the relationship of awareness, perceived values and attitudes on intent to use Islamic Banking products.

In his article ***Analysis of Challenges and Opportunities in Islamic Banking***, Salman Ahmed Shaikh provides mathematical exposition of the Islamic banking

architecture and discusses its salient economic merits. He goes on to discuss the potential challenges that it has to overcome.

We then come to **Islamic Home Financing and Ownership transfer to the customer – Models compared** by *Prof. Dr. Zubair Hasan* wherein he clarifies his Diminishing Balance Model (ZDBM) as not incorporating compounding and explains the basis of its calculation.

In their article "**Big Data Technology in Shari'ah Compliance Risk Management : A view of Information Technology in Islamic Finance Risk Management**", Muhammad Saiful Ridhwan, Nur Din Khairuddin and Mohd Adam Suhaimi discuss the importance of managing risks in context of Islamic Finance since not only is the risk more but of different type as compared to conventional finance.

At the end of this issue are summarized the significant "*News Monitor*"- items that show not only the development but also the impact that proponents of Islamic banking and finance are making in their respective markets.

Disclaimer

The authors themselves are responsible for the views and opinions expressed by them in their articles published in this Journal.

The **opinions, suggestions** from our worthy readers are welcome and may be communicated to us through

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Please recite Surat-ul-Fatiha for his Soul.

**Directors/
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Promoting Islamic Finance

By

*Dr. Ishrat Hussain**

Abstract

Islamic Finance is becoming popular world-wide as it addresses the shortcomings of the conventional system that lead to the financial crises of 2008-2009. However, to make Islamic banking and finance a viable option, certain aspects thereof must be addressed which this article discusses.

Key Words: *Islamic Finance; Sukuk; Profit Sharing; Asset backed; Ethical Financing*

THE government recently formed a high-powered committee to examine the current state of Islamic finance and suggest measures for future development. The share of Islamic banks, introduced in Pakistan in parallel to the conventional banking system in 2001, has risen to 10pc of the banking assets in the country. This achievement is not at all unimpressive considering that the growth rate of Islamic banking here is twice that of conventional banking.

Why is Islamic finance becoming popular worldwide and not only in Muslim countries? Muslims may be shifting towards it for reasons of faith but it is also receiving attention in the UK, Europe, Singapore, Hong Kong, etc. The UK government has committed itself to making London the global hub of Islamic finance, and the UK treasury is issuing a Sukuk worth £200 million, becoming the first sovereign state outside the Muslim world to issue an Islamic bond.

The 2008-09 financial crisis has led to greater scrutiny of Islamic finance as an alternative to the global financial system because it offers itself as a source of stability, reducing fragility and volatility. During the crisis, Islamic banks didn't suffer as much as conventional banks because they did not deal in exotic derivatives or artificial money-creation instruments such as collateralised debt obligations. Every transaction in Islamic financing must be backed by real assets i.e. buildings, structures, factories, machinery etc.

The risk characteristics of Islamic finance are different both on the liability and asset sides. Profit-sharing rather than a fixed pre-determined rate of return on deposits

*

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(investment accounts) insulates Islamic banking from volatility and abrupt movements. On the asset side, Islamic banks take ownership stakes in the businesses of borrowers and offer different products and services that are not feasible under conventional banking.

As a partner in the borrower's business, the bank has to monitor and ensure proper utilisation of financing. Thus credit appraisal and risk management are much stronger. There is a growing trend to shun unethically or socially irresponsible investment funds and businesses. Islamic banking prohibits financing of anti-social and unethical businesses such as gambling, prostitution, alcohol, nightclubs and narcotics. In this respect, it is clearly ahead of the recent surge in ethical finance and socially responsible investment that are becoming popular in the West.

Islamic finance's other distinguishing feature is its emphasis on poverty alleviation and reducing income inequalities. In a world where such inequalities with their pernicious effect on social cohesion are a source of major concern, Islamic finance appears as an attractive candidate to address this concern. Inequality's origins can be traced to the nature of conventional banking where the risk is concentrated solely in the borrower and the fruits of good fortune or adversity are borne by the individual or firms that have borrowed the money. Should the business fail, the underlying collateral is forcibly realised by the bank. The cause of many bankruptcies, business collapses and financial insolvency lies in this inbuilt characteristic of conventional banking.

In Islamic finance, the supplier of funds or the investor demands returns on investment after the business transaction has produced the outcome. As the risk is shared between the supplier and user of funds, returns on investment, whether positive or negative, are shared equitably between the two parties in the proportion they had agreed upon. The burden of adversity does not fall on the borrower only — the winner i.e. the bank does not take it all while the loser i.e. the borrower does not become financially insolvent.

Despite its many attractive features the unfinished agenda of promoting Islamic finance is quite long. First, there's a need to raise awareness and educate the public as there is hardly any common or shared understanding about the objectives, underlying principles, mechanics, mode of operation and outcomes of Islamic finance.

Second, there is a lack of new products and services. Islamic banks in Pakistan have been too obsessed with making conventional banking products Sharia-compliant. To critics, this is nothing more than bells and whistles wrapped around existing products.

Third, deposit mobilisation has picked up speed but asset deployment has not kept pace. The ratio of financing to deposits is dismally low.

Fourth, sectors such as agriculture, agribusiness, small and medium enterprises, low-cost housing, etc neglected by conventional banks but forming the core of Islamic financing haven't been covered.

Fifth, the proliferation of Sharia boards at the level of individual financial institutions has added to uncertainty and raises questions about the nature and legal force behind these boards. Are they part of the governance structure or decision-making process?

Sixth, the lack of standardisation of Islamic products has made transaction costs relatively higher, and the issuance of transaction-based fatwas by Sharia boards leads to lack of transparency and unpredictability.

Seventh, investment account holders are neither shareholders nor passive depositors. They are, however, not represented on the governance of the institutions and thus do not have much of a voice.

Eighth, the human resource base is becoming a major constraint in the expansion of Islamic banking. Individuals who are trained and competent in basic banking as well as Islamic jurisprudence are limited in supply.

The committee, therefore, has a challenging task ahead to address some of these issues and problems that can remove the hurdles in the way of rapid growth of Islamic finance.

Managing Risks in Islamic Finance

By
Imran Hussain Minhas^{*}

Abstract:

Since the inception of Islamic finance, it is encountered with different challenges and criticism from advocates of conventional financial system but time has proved that Islamic finance is a reality having tremendous potential to grow. Islamic finance has now reached to around 100 countries of the world which includes the non-Muslim jurisdictions, as well. Islamic finance is getting its share in the financial system with a rapid double digit growth rate and worldwide assets of Islamic Finance have reached to US\$ 1.8 trillion in 2013 from US\$ 826 billion in 2010.

For a strong Islamic capital and money market, an effective risk management structure is mandatory and the author discusses these in this article.

Key Words: *Islamic Finance, Risk Management, Assets, Markets*

Introduction:

Historically, Islamic finance is encountered with five main challenges, (i) weak enabling infrastructure (ii) lack of innovative products and liquidity management tools (iii) low level of penetration (iv) lack of transparency in disclosures; and (v) standardization in the products and services. To address these issues one needs only a political will, as present day Islamic banking and finance provides sufficient flexibility and a wide range solution to all the said challenges. Any economy can easily eradicate riba from its domestic operations by adopting the wide range solutions provided by the

*

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Islamic banking and finance system but a true Islamic money and capital market can only be developed if the legislature provides enabling environment with a strong regulatory framework and sovereign Shariah compliant liquidity management instruments. In addition, awareness campaigns, trainings and education of the masses can further deepen the Islamic financial markets.

Risk Management

Before going into the details of risk management let's understand the meaning of risk. Generally the risk is known as the likelihood of loss or a situation where there are chances that the desired results will not be achieved at all or the results will be different from the targets. This is exactly what is meant by risk as used in financial literature. But we must differentiate risk from ambiguity and uncertainty. Risk is based on some probability of happening of certain event and somehow it is calculable whereas ambiguity and uncertainty are based on some belief, lack of knowledge or information and are not calculable. Therefore, we must be sure that the situation we are planning to manage is not based on ambiguity or uncertainty.

Risk management can simply be defined as a process of managing the risk associated with a business. Risk management is a discipline that can adequately capture and manage all major risks to which a business is exposed. Risk management framework in a financial institution broadly includes the following segments:

- i) Board and Senior Management's oversight
- ii) Organization's structure
- iii) Internal Controls
- iv) Risk Management Process

Risk management is a concept that is not only accepted by Islam but is also suggested to adopt, while performing jobs in order to achieve the goals and objectives in this world and hereafter. This is evident from the Quran and sayings of the Prophet (peace be upon him) that encourage mankind to use the mind (*aql*). Islam is not against risk management but it is against extremism on either side i.e. not taking the risk with an expectation to make loss only and taking excessive risk by indulging into *maysir* (gambling). What Islam promotes, is the act of taking calculated risks, with the expectation to make gains.

Example from hadith, which is frequently used by the proponents of takaful, is narrated by Amer bin Ummiyah (r.a), who asked the Prophet (peace be upon him), *should I leave my camel untied and trust in God? The Prophet PBUH said, "tie up your camel first then put your trust in God"*.

An effective risk management improves planning processes, reduces the likelihood of potential cost surprises and prepares the organization for challenging and undesirable events. Risk management is very effective in improving resource allocation, efficiency and general performance by developing a positive organization culture where people and departments understand their purpose, role and direction. Risk management helps in designing a clear process of decision making, transparency and accountability. As a whole risk management is much about exploiting the opportunities for profit by avoiding the downside and adding value to a company with the best use of available resources.

In spite of the above benefits a risk manager must keep in mind that risk management cannot be always right. Risk management is not magic and cannot predict the future. It cannot identify business opportunities. However, it is helpful in predicting the loss and identifying the most dangerous scenario for a given event. Risk management can recommend how to change the risk profile of an organization.

The risk management process in any organization includes the following steps:

1. Risk Identification and Evaluation
2. Risk Measurement
3. Risk Mitigation and Control
4. Risk Review and Monitoring
5. Risk Communication and MIS

Risk Identification and Evaluation

In order to manage risks, a risk manager must identify and evaluate the risks by establishing the context of the organization and the risks. Risk manager should establish whether the risk is internal or external. While identifying of the risk, it is necessary to evaluate as to what could happen, how could it happen and why could it happen. Risk can be hidden in the existing as well as the future businesses of a financial institution; for example, risks inherent in a financial institution include credit, market, liquidity, operations, regulatory and legal risks.

An Islamic financial institution (IFI) is also exposed to the same risks to which a conventional financial institution is exposed. But there is a big difference – that of Shariah compliance in the structure of Islamic and conventional products. In fact the Shariah compliance is the only difference and reason for the existence of IFIs. The major risks of conventional financial institutions and their relevance to the IFIs are discussed hereunder:

Credit Risk

Credit risk is a risk of default by the counterparty. In cases where financing or funding is involved, there is always a counterparty default or settlement risk. It means that the counterparty may not be able to honor its commitment on due date or at all. Credit risk exists in all modes of Islamic financing, however, the probability and intensity of credit risk differs, product wise. Like, in the arrangement of Ijarah credit risk normally exists to the extent of delayed payment or total default in the payment of rentals as the IFI has the option to recover its asset from the customer in case of default in rentals. However, the probability of total loss of the asset cannot be ruled out, although it is lesser.

Under the arrangements of Musharakah and Mudarabah (MM) the credit risk is very high as compared to the other modes of investment. But in the musharakah ventures where the partners are not sleeping, credit risk is considered to be lesser than the mudarabah arrangement.

Credit risk is higher in those Murabahah transactions where the IFI has not obtained any collateral and guarantee for the same. Credit risk under the arrangement of

Istisna is higher due to future delivery of the product. However, credit risk in Istisna as compared to the Salam transaction, due to payment on staggered basis is lower.

In short credit risk exists in every financing product but with a different profile.

Market Risk

Market Risk is the effect of changes in the prices of the assets traded in the markets by a modaraba for its business activities. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return. Market risk is another important risk that affects an IFI in the shape of equity investment, commodity price, rate of return or exchange rate risks.

- Equity Investment Risk - Equity Investment is of two types i.e. Investment in publically traded shares and direct investment in the business or venture under the arrangement of Mudarabah or Musharakah. Both have some of the common equity investment risks like rate of return and liquidity etc. However, the joint ventures of equity investments do not provide easy exit mechanism in case of need whereas the investment in publically traded shares provides an easy exit mechanism through the stock exchanges with its own risks like change in the market value of the share price due to various market forces and economic conditions of the country.
- Asset or commodity price risk – There is a possibility that the goods are sold at a price which may not cover its costs or the goods are not sold at all. The risk is prominent in the cases of Ijarah, Murabahah, Salam and Istisna due to possible fluctuations in the price of commodities, during the promise and delivery period of the product.
- Rate of Return Risk: is a risk of not getting the expected return on certain transaction due to economic conditions or change in the pricing benchmark. Deteriorating economic conditions may squeeze the expected profits of your Musharakah and Mudarabah ventures. As any adverse change in the pricing benchmark rates can reduce the spread of an IFI and increase the costs, if the liabilities have not been booked on the same pricing benchmark.
- Breach of Promise by the customer: refusal of a customer, after promising to buy the product and the IFI has to disposing it to some other buyer or in the open market.
- Exchange Rate Risk: Exchange rate risk refers to the adverse impact on the local currency due to change in exchange rate of foreign currencies. Where an IFI is involved in foreign trade transactions and it has taken foreign currency positions it is always exposed to exchange rate risk.

Liquidity Risk

It is a risk that the IFI is unable to meet its financial obligations when they fall due or to fund any asset, as and when required, without incurring unjustified costs or losses. It includes the risk of liquidating assets in a timely manner and at reasonable prices. Liquidity risk similarly hits the IFIs like it affects the convention financial institution. An IFI faces liquidity risk due to incorrect forecast and judgment of its cash flows, unanticipated change in cost of capital, abnormal behavior of financial markets and

breakdown of payment system. It is involved in all those cases where credit risk is involved.

For credit defaults and unpredictable rate of return specifically under Mudarabah and Musharakah may add to the liquidity problems of an IFI. Under Ijarah, Diminishing Musharakah and all modes of Mudarabah liquidity risk of an IFI is related to delay or default in the installments by the customers. An IFI is more prone to liquidity risk if it has invested in illiquid and non-tradable assets for the customer.

Operational Risk

Operational risk is the risk that arises from human error or deficiencies in information systems, technology, infrastructure, internal process or controls, frauds, damage to physical assets, negative publicity about business practices, and high withdrawal of deposits, inventory or commodities mismanagement. Lack of innovation, infrastructure and technology may also give rise to operational risks.

Operational risks are also connected to the legal enforceability of contracts. If there is no clarity in certain clauses of the contracts and it is difficult to fix liability, in such cases a dispute can arise which may lead to court cases against the IFI or the customer.

Operational risk is also involved at the transaction level to the extent of its completion. But where the quantum of transaction is bigger it may effects the overall operations of the IFI. Like under Ijarah contracts operational risk is higher because the asset is possessed and used by the lessee whereas the major damage and repair are borne by the IFI and negligent use of the asset may cause operational loss to the IFI but magnitude can be different due to size of the transaction. Moreover, in the contracts, where the maintenance cost of Ijarah asset exceeds the amount of rental income and adds continuous losses to the IFI it may also end up in termination of the contract.

Regulatory and Legal risk

Regulatory risk and legal risk are the risks of adverse change in the regulatory framework. These also arise due to failure of the organization to comply with the legal and regulatory framework prescribed by the various agencies of the government specifically the regulator authority. It is equally important for both the conventional and Islamic financial institutions. Any serious violation of the regulatory and legal framework may lead to the winding up of the IFI.

Shari'ah non-compliance risk

Shari'ah non-compliance is the additional risk which is very important for the IFIs. It can impact the overall reputation of the IFI resulting in loss of customers, business and regulatory actions. Shariah non-compliance can injure the profitability of an IFI because Shariah non-compliance makes the transaction *Haram* (forbidden) and no IFI is allowed to make *Haram* income. Shari'ah non-compliance by the Mudarabas operating in Pakistan is a criminal offense. Shariah non-compliance risk exists in all types of Islamic financial products.

In Pakistan, the banking and non-banking Islamic financial institutions are allowed to undertake business broadly on the basis of Ijarah, Musharakah, Diminishing Musharakah, Mudarabah, Murabahah, Musawamah, Istisna and Salam etc. Major risks discussed above are also associated with the Islamic financial products but with different levels of intensity. Each risk is not common in all types of products. Every mode of

Islamic finance has its own unique risk profile. But it is not necessary that a risk occur in isolation. Any one risk may attract the other risks as well. For example a credit risk may expose an IFI to liquidity risk. Likewise market risk can attract credit and liquidity risks and so on. A risk manager must be aware of the facts that the risks of a financial institution may not occur in isolation and that these risks are always inter-connected.

Risks related to the Islamic financial products

Besides the common risks of Islamic financial products like credit, liquidity, operations and Shariah non-compliance risks, there are some specific risks. For better understanding of risks associated with the Islamic financial institutions we must understand the structure of products being offered by the IFIs. Here is the brief introduction of the Islamic financial products and risks attached to them.

Ijarah and the Risks

Ijarah is a Shariah compliant Lease. It is a contract whereby the owner of an asset transfers the usufruct of its asset to another person for an agreed period and consideration. Along with the rate of return risk it involves the following risks:

- Supplier's Default Risk: Choosing a bad supplier would result in credit, operational liquidity and reputational risk to the IFI. The delay on the part of supplier would cause delay in supply of asset to the customer, delayed execution of Ijarah agreement and opportunity cost to the IFI. Excessive delay or default of the supplier can hold up the transaction of resulting business and reputational loss to the IFI.
- Asset price risk due to breach of promise by the customer: The most important counterparty and market risks arise specifically in the cases of Murabahah and Ijara, where the customer does not honor his promise to acquire the product after the acquisition by the IFI. In such cases the IFI faces credit risk in case of non-tradable asset and market risk on forced sale of tradable items.
- Risk of loss during intervening period: After acquisition of a product or commodity for the purpose of Murabahah and Ijara IFI is exposed to operational risk (namely, damage, spoilage, theft etc.) and additional carrying cost till the delivery of the goods to the customer.
- Impairment Risk: Impairment is depletion in the carrying value of an asset. Under the Ijara agreement the customer is under no obligation to buy the asset at the end of Ijarah period, hence an IFI may face the asset price risk due to unexpected depletion in the salvage value of the asset.

Mudarabah/Musharakah (MM) and the Risks:

Mudarabah is special type of partnership between two parties, where one partner, the Rabb-al-Mal, provides the capital and the other having the skill to manage, the Mudarib, runs the business on agreed terms and conditions. Whereas, **Musharakah** is a partnership in which all the partners can manage and share the profit or loss of a joint venture on agreed terms and conditions.

Basically, the Mudarabah and Musharakah are types of partnership hence the risk profile of both the contracts are more or less the same. Credit, liquidity, equity

investment and rate of return risks are prominent under MM arrangements. The risks involved in MM arrangements are as under:

- Adverse selection of partner: Selection of the partner is a very important task in the Musharakah arrangement. Moral hazards and incapacity of the partner may lead the IFI into financial distress and losses.
- Absence of collateral, guarantee: As both are the types of partnership hence collateral or guarantee is not mandatory, which makes the investment further risky on the part of Rabb-al-Mal.
- Incapacity of Partner (Mudarib): Under Mudarabah arrangement, putting money in such venture where the mudarib is incompetent to run the business may turn the investment of an IFI to losses.
- Misuse of funds: Use of funds for the purposes other than the agreed business can attract credit risk.

Diminishing Musharakah and the Risks

Diminishing Musharakah has basically originated from the Musharakah. Under DM IFI enters into a joint ownership of an asset with one or more customers and allows the customer(s) to buy the ownership rights of the IFI in installments or lump sum. The IFI receive its share of profit or rent on the portion of its investment. DM inherits the risks of Musharakah and Ijarah and is a comparatively lower risk product than Musharakah due to its structure and guaranteed return.

Murabahah/Musawamah and the Risks

Murabahah and Musawamah are simply sale transactions, with the difference of cost disclosure only, under which a financial institution, on the request of a customer, buys the product to sell it to the customer on deferred payment basis at a profit. An IFI, is exposed to the following risks under Murabahah and Musawamah arrangements:

- Supplier's Default Risk: Supplier's default risk under Murabahah and Musawamah are more or less the same as discussed under Ijarah.
- Asset price risk due to breach of promise by the customer.
- Risk of loss during the intervening period.

Salam and the Risks

Salam is a forward contract to buy future produce, at agreed terms, with immediate payment of the agreed price to the producer. Not necessarily, but mostly a Salam contract is executed on agricultural products. It inherits the following risks:

- Product quality risk: that the produce may not be of the required quality.
- Natural Calamities: If the Salam is on agricultural based produce, it is always exposed to the risk of natural calamities, catastrophes etc. due to which delivery risks are expected to be more than normal in Salam.

- Abnormal price fluctuations leading to breach of contract by the producer - After signing a Salam contract abnormal price hike may work as a disincentive for fulfilling the contractual obligations by the customer as in case of unexpected hike in price the customer may find it beneficial to make a default in delivery of the produce to the IFI and prefer to sell the produce at his own in order to encash the abnormal increase in price.

Istisna and the Risks

Istisna is a forward contract in which one party orders another to manufacture and provide a commodity, the description of which, delivery date, price and payment dates are all set in the contract. It is embedded with the following risks:

- Manufacturer's default risk is similar to the supplier's default risk discussed above.
- Risk of quality and specification: the buyer is exposed to the risk of quality where the manufacturer or contractor fails to supply the goods or construct the project according to the requisite quality and specification.

Risk Measurement

After identification of the risks, next step is the risk measurement in order to determine their impact on operations, profitability and capital of the IFI. Until the risks are assessed and measured, it will not be possible to control them. Accurate and timely measurement of risk is essential for an effective risk management system. A true assessment of risk gives a clear view of the IFI's affairs and helps in deciding future action plans. Following steps can help an IFI to assess evaluate and measure any of its risk.



An IFI is required to undertake some form of internal evaluation and rating of their assets and customers. There are different models available in the market to measure, evaluate and assess the risk weights. However, a financial institution can measure different risks by using the various techniques, tools prescribed under BASEL, including but not limited to internal risk rating, value at risk (VaR), gap analysis, duration analysis, scenario analysis, capital assets pricing models, maturity ladders, SWOT analysis or any of the available models or techniques. However, the management should ensure that the opted model measures the true risk profile of the IFI to the maximum extent.

Risk Mitigation and Control

For management of risk, IFI should follow the following basic principles of risk management prescribed by the financial sector regulators, Islamic Financial Services

Board (IFSB) and Bank for International Settlements (BIS) in their various publications. Some of the principles for all type of risks are given below:

1. Risk Management Policies: Every type of risk can be minimized with sound and well-defined policies, procedures and strategies. An IFI should have in place comprehensive risk management policies, reporting process, appropriate board and senior management oversight to identify, measure, monitor, report and control relevant categories of risks.
2. Shariah Compliance: Shariah compliance is the only reason for existence of the IFIs. It is therefore advised that Shariah compliance should be given prime importance and the IFI should take appropriate steps to comply with Shari'ah rules and principles and to ensure the adequacy of relevant risk reporting to its Board and regulatory authority.

Appointment of Shariah Advisor or Board: An IFI should appoint an independent Shariah Advisor or Board to ensure compliance with *Shari'ah* rules and principles.

3. Qualified Management: To conduct the business in accordance with the Shari'ah principles and to ensure Shari'ah compliance, an IFI should hire the services of such professionals who have sufficient education and trainings in the area of Islamic finance. Further the regulatory authority should ensure that at least one members of the Board of directors has sufficient knowledge and expertise of Islamic finance and the Shariah.
4. Operational risk management: Operational risk may be both internal and external as it may cause loss resulting from inadequate or failure of internal processes, people and systems or from external events etc. The Basel Committee has recommended some best practices in the area of operational risk, which are:
 - a. Board approvals.
 - b. Independent internal audit.
 - c. Management implementation through policies, procedures etc.
 - d. Contingency and continuity planning.
 - e. Disclosures.

1. Due diligence: Credit or counterparty risk is the most important risk that needs special attention of an IFI while establishing a relationship. IFI should carry out a due diligence review of the counterparties before establishing relationship. Financing facilities and counterparty relations must be considered on the basis of integrity, repute, capacity, capital employed, collateral and legal capacity of the customer. An IFI can reduce its credit risk by extending facilities on the basis of Five Cs (i.e. Character, Capacity, Capital, Collateral and Covenants) of lending.

For minimizing the equity investment risks an IFI should conduct in-depth analysis of the economic conditions of the country, sector and investee company. The investment decision should be based on reliable market information, credit rating of the issuer or issue, reputation of the management and future prospects of the investee company or the venture. Avoid investing in such industries, sectors and scripts which are uneconomical, dying or remained highly volatile during the last six months.

2. Internal and External Rating Methods: An IFI should use Internal or external rating method to minimize counterparty risk. Such rating can help the IFI for number of purposes, at the time of disbursement as well as subsequent review, like section of credit, quantum of exposure, period and pricing of the facility etc.

An IFI should also rely on its internal rating for establishing business relations.

3. Collateral, Pledge (*Rehan*) and guarantee: An IFI should ensure that sufficient collateral or security, either in the form of mortgage, hypothecation or pledge, has been obtained before granting facilities to its customers. In addition to the collateral, guarantees supplement the security in improving the quality of credit. Commercial guarantees and personal guarantees of high net worth persons are an extremely important tools to control credit risk.
4. Credit Administration: IFIs should establish a specialized and separate credit administration department to minimize the legal risk and timely follow up and close contact with the customer to save itself from defaults.
5. Stress Testing: For equity investment an IFI should ensure that the valuation methodologies are appropriate and consistent, and also assess the potential impacts of these methods on profit calculations and allocations. To be more prudent the IFI should conduct stress testing of its investment portfolio in order to assess the impact at various stress levels.
6. Locking the price at the outset: In case of Ijarah and Murabahah, the IFI can mitigate the price risk by locking the prices with the supplier and the customer at the outset.
7. Use of similar benchmark for assets and liabilities: An IFI can mitigate its rate of return risk by using similar pricing benchmarks for its liabilities and asset.
8. Use of Contingency Funding Plan (CFP): An IFI should put in place a Shariah compliant liquidity management framework to minimize the liquidity risk by maintaining adequate liquidity to meet its obligations by having access to liquidity through, sponsors, creditors, fixed asset realizations and arrangements such as sale and lease-back. The IFIs can use CFP to ensure that:
 - a. a reasonable amount of liquid assets are maintained;
 - b. measurement and projection of funding requirements during various scenarios;
 - c. Access to funding sources.
9. Diversification of Portfolio: An IFI should avoid concentration of risk by allocating sector limits for investments and facilities. The portfolio should be diversified with the objective that if an IFI has multiple assets in its portfolio and where one is not doing well, it has the others that are outperforming so as to reduce the overall volatility of the portfolio.
10. Limit Setting: An IFI should prescribe limits for taking exposure on a single script, customer, group and supplier, remaining within the limits prescribed by the regulatory authority.

11. Undertaking to make the loss good: In cases, like Ijarah, Murabahah and Musawamah, where there is a doubt that the customer will not honor his promise to deliver or take the delivery or possession of the assets, acquired for him, an unconditional undertaking to make the loss good, in case of forced sale or disposal of the asset, should be obtained from the customer to bind him to honor his promise.
12. Advance Deposits (Hamish Jiddiya): To minimize the chances of breach of promise by the customer, an IFI should obtain certain percentage of cost of commodity as advance payment, up-front payment or commitment fee at the time of promise.
13. Appointment of Agent: To avoid the loss of intervening period, in the cases of Murabahah, Musawamah and Ijarah, the IFI can eliminate the risk by appointing the customer as an agent for the IFI to buy the asset directly from the supplier.
14. Promise to share the profit beyond certain limits: In cases of Salam and Istisna if there is a doubt that in case of abnormal increase in prices, the producer may prefer default to get the benefit of abnormal increase in price. The IFI can minimize the risk with a condition that a certain level of price fluctuation will be acceptable, but beyond that point the gaining party shall compensate the other party.
15. Penalty (Band al-Jazāa): Penalty is allowed by the Shariah scholars to be made part of the agreement in order to deter the customers from any potential payment default or late payment. However, such penalty shall be donated as charity without making it a part of income of the IFI.
16. Use of funds: In case of equity investment on Musharakah and Mudarabah basis the IFI should ensure that the partners are using the funds for the purpose of its business.
17. Takaful of properties and assets: To minimize the risk the IFIs should arrange takaful for every type of its properties and assets. Takaful is another good source of transferring the risk of loss by fire, theft, marine accident, shipment failures, earthquake, riots, terrorism etc.

Risk Review and Monitoring

Continuous monitoring and review are vital for an effective risk management system. The primary purpose of monitoring and review is to ensure compliance and provide important feedback with regard to assurance over the efficiency and effectiveness of controls. It enables an IFI to analyze and learn lessons from the successes and failures of the events.

A Committee or department, independent from the risk taking units, should be established to provide assistance in risk monitoring and review to ensure that:

- All risks are properly monitored and reviewed on periodical basis
- Periodical review of the rating assigned to every obligor is conducted.
- The results of such review are properly documented and reported directly to the Board or management etc.
- Provision for the new risks or changes in already identified risks are made so that the change can be appropriately addressed;

Risk Communication and MIS

Communication, consultation and regular feedback must take place at all steps in the risk management process. The effectiveness of an IFI's risk measurement process is highly dependent on the quality of management information systems (MIS). Therefore, it should have a MIS in place, capable to raise early warning signals and to ensure that exposures approaching risk limits are brought to the attention of senior management.

Since the Risk management is imperative in strengthening the regulatory and supervisory oversight and risk profile of an IFI. The implementation of effective risk management framework will help the management to achieve the objectives of safe and sound business in conformity with the standardized business norms.

This is not all, because every type of financial service has its own risk profile which needs a bit different risk management but broadly the above mentioned framework can be used with minor changes.

Disclaimer on behalf of the author: "These views and opinions are my own, and not that of my employer"

Islamic Gold *Dinar*

A Socio-Economic & Regulatory Analysis

By
Prof. Dr. Mohd. Ma'sum Billah *

Abstract

Money plays a vital role to the economy of any country, not only for providing a medium of exchange but also for the basic survival of the economy of the country. Traditionally, many things have been used by man to accommodate trade and be used as money such as sea shells, gold, silver, special type of stones and so on. Currently the world is using paper money as the official medium of exchange between individuals and institutions. So far, the system has managed to survive many financial crises and it seems to be in use for many years to come. Unfortunately, the paper money system does have its flaws including some that make it an unacceptable medium in the eyes of Islam. These flaws are discussed in this paper along with an alternative system that can be used by the world communities. This new system is one that is sure to be just and also in accordance with the Islamic injunctions. This paper however seeks to analyze different aspects of political-regulatory issues for the possible implementation of gold currency in the contemporary reality.

Key Words: *Possible Practices of Currencies: A diversified phenomena*

Money

Money in any form must have three attributes that make it acceptable to the public.

- i. It must be able to be stored money. For example, a person receives his salary at the beginning of the month, but he may not be willing to spend it that very moment. He may decide to keep the money and use it now and then throughout the month. Or he may be saving that money to buy a house or a farm and will have to save money for months ahead.
- ii. It must be a unit of account. The users must be able to measure the value of different commodities with respect to money. Thus, if a meter of cloth costs 10 units of money, then a ready-made suit of the same material will definitely cost more than those 10 units of money.

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- iii. It should be an accepted medium of exchange to make it valuable. Every one in the community must accept that money in exchange of goods or service otherwise the money does not fulfill its purpose. Usually the government will issue a legal tender informing the public that the new form of money is to be used from then on. This motivates the public into accepting that currency.

Barter

Not every situation warranted the usage of money in the old days as another form of trade also existed; one that allowed to exchange an article for another one. Hence, a farmer could exchange his wheat for a chicken or a haircut from the barber. This form of trade was known as barter and was fairly common in the old days.

Gold Standard

However, it was the use of gold coins that was the rage in the era before the paper money was introduced. Gold and silver coins were preferred as they had value in themselves and were relatively stable. A person could be almost certain that he would be able to buy the same basket of goods with a gold coin even after a certain period of time, say two months.

The need for silver coins arose from the fact that a person could not buy everything with gold coins as some articles were too cheap to be replaced by gold. For example, a person wishing to buy ink for his pen might think that a gold coin was too much to pay for it and would thus pay in silver instead. This usage of gold and silver coins as money is termed as “*bimetallism*” and was commonly practiced.

The gold standard was quite stable and was highly regarded throughout the world. It paved the way for international trade as people around the globe have a mutual desire for gold. Moreover, the traders could melt the gold coin and sell it for its gold content if the need ever arose.

Countries knew the value of their money by comparing it to gold. For example, if the U.S Dollar was worth an ounce of gold and the British Pound was worth half ounce; then the British would have to pay Twenty Pounds for an item that was worth \$10 in the U.S. Thus, the departure from the gold standard created a dilemma as foreign countries now no longer knew the real value of their money and whether they were being cheated in trade by another country or not.

Fiat Money

Over time people realized that, carrying gold with them was not a safe practice, in fact it was also not a convenient one. They then kept their gold and silver at a goldsmith's place where they paid a small amount of money for the service. The people running the place would then give them a receipt certifying that they indeed had kept the gold away in a locker.

This new invention helped both the buyers and sellers; the sellers knew that the buyers really did have the gold available to pay for the transaction and the sellers found it more safe and convenient to hand over the receipt than to carry the money physically. The seller could then go to the “bank” or “place” where the gold was kept and get it back in return for the receipt. Thus, the receipt or money was then totally backed by gold and the person owning a receipt could go to the bank and retrieve the gold anytime.

During the beginning of our modern day banking system, money was considered a receipt by the government declaring that the person had that amount of gold. A person could always hand over his paper money to another for exchange of a service or commodity thus declaring that the other person was now the owner of the receipt and gold.

The seller of the service or commodity could then go to any bank and claim his gold by handing over the receipt. The method was essentially the same as in earlier times although slightly modernized. Gold was even then the main currency for trade and commerce. This system was known as a fully backed system as the banks had the same amount of gold as they handed over the receipts and is known as 100% reserve banking systems and differs from the one used today. Thus, they would have no problem if all of their customers decided to reclaim their gold on the same day.

The methodology adopted by most of the countries before the world war 1 was based on supplying money to the public that was only partially backed. The banks had the authority to handout receipts to their clients for money that in reality did not even exist. For example, a farmer comes to the bank asking for a loan so as to buy a certain piece of land. The bank would give the farmer a receipt (paper money) upon accepting his request. The bank has thus given out a receipt even though there is not gold backing that receipt. This method is commonly known as the fractional reserve banking system. Here, the bank decides to hand out receipts for gold that doesn't exist!

Thus, the money is no longer completely backed and the bank has created more money than really exists. Usually, the government sets the reserve requirement which means that the government will decide the exact amount of money that is to be backed. For example, if the government states that a bank must have 20% of the total money in reserve, then the bank will have to retain RM 20,000 in gold if the total outstanding currency of the bank is RM 100,000.

If the reserve requirement set by the government is low, then the bank can lend out more receipts and hence distribute more money into the economy. However, the bank will have to limit its loans if the reserve requirement set by the government is high.

Eventually, the gold backing of money was totally abolished in August 15, 1971 when President Nixon suspended the gold payments. Thus, the money that we have today is fiat money, which is not backed by gold. We no longer use paper money that is really a receipt for gold but instead the fiat money has taken over as the medium of exchange.

Some countries have devised a solution to stabilize their currency whereby they peg their currency to that of the United States. This is done based on the preconceived notion that the U.S currency is comparatively the most stable currency available. This is the case in Malaysia as its government has declared that 1 U.S Dollar is now the equivalent to 3.8 Malaysian Ringgits. Any inflation or deflation on the part of the dollar will definitely have a profound effect on the Malaysian currency.

Problems of Paper Money in the Socio-Economic Reality and the *Shari'ah* Response

- The introduction of paper money has led to the problem of instability of currency that did not exist with the usage of the gold standard. The production of gold was quite stable and it then automatically guaranteed stability.

- Paper money unfortunately can be created anytime based on the decision of the government. This is what makes it so unstable and unreliable as a medium of exchange. With an ounce of gold one could buy the same amount of goods over an extended period of time whereas with a twenty dollar note one may not be able to enjoy the same privilege.
- The government decides the money matters of a country and is also responsible for increasing or decreasing the value of its currency. For example, a country may require more money to finance all of its programs. On the other hand, the country might be spiraling into a depression which will result in reduced public spending.

In both cases, the government will find itself trapped and will have to take some measures to increase the money in the economy. In case of a depression, the government will have to inject more money into the economy so as to stimulate it to overcome the hardship.

The government will then have to finance the extra money and may decide to go for credit expansion. This would require the authorities to hand over more loans to businesses and the public sector so as to ease the hardship inflicted on them. The positive result of this measure taken by the government would be that the people will be able to open new businesses and maintain the businesses that they already have.

This can be achieved by lowering the reserve level of the bank. The main bank (also commonly known as the banker's bank) has the authority to set the reserve requirement for all of the commercial banks in the nation. As the government wants the banks to give out more loans; therefore the main bank of the country will lower the reserve requirements of the commercial banks. For example, suppose the commercial banks are allowed to loan out money but retain 20% of the total amount thus setting the reserve to 20%. This would mean that if a person 'A' has deposited RM 1,000 in the bank, the bank can loan out RM800 of that money. Now suppose that the reserve requirement is lowered to 10%, in which situation the bank will be able to loan out RM 900 instead of RM 800. The person 'B' to whom the money has been loaned might then return the amount which will then be loaned to another individual or organization or alike. Thus, the bank itself has created money by the method of credit expansion. An important point to note is that the government is usually a country's largest debtor. Thus, the government will definitely gain during the period of inflation.

Although this credit expansion of money seems like a viable alternative to the nation's problems; it is not without its flaws. The biggest problem resulting from injecting this money into the economy of a country, may result in inflation and depreciate the value of the country's currency.

Printing more money will also have the same effect on the economy. For instance suppose that the government decides that the best way to overcome the nation's problems is by printing more money. Here, people will have more money to spend whereas the supply of commodities is still the same. As a result, few items of goods will be chased by many people thus automatically raising the prices of the commodities. Again, the outcome will be the depreciation of money and a high level of inflation.

The best case of inflation resulted in Germany in 1923 where the government could no longer keep the inflation in check and it went out of control resulting in hyperinflation.

The prices of items had become one billion times higher than they had been at the beginning of the very same year. A postage stamp cost 20,000,000,000 Mark at the end of 1923 whereas previously it had cost less than one Mark.¹ As is obvious in the case of Germany, inflations may become so severe that it can then cripple the country's economy. RM 10 may no longer be enough to buy the same basket of goods as the prices of the commodities may have doubles or tripled.

Inflation creates two basic problems in a society; the first of which is that it benefits the debtor at the expense of the creditor. For example, 'A' lent RM 20,000 to 'B' so that he could start a business with that money. The deal was that 'B' has to return the money after at least a five year period. Now suppose that the country is hit by a wave of inflation and the value of the money has reduced significantly. The value of the RM 20,000 that 'A' lent 'B' 5 years ago will now be equivalent to RM 28,000. However, 'B' will repay 'A' by returning only RM. 20,000 to him which is an unjust practice. As is clear from the example, 'B' has gained at the expense of 'A'.

Another inherent problem of the fiat system is how it affects the relationship between the employer and the employee. A company pays its employee, say RM 2,000 per month which may be enough in the current situation. However, if the currency of the country is not stable and keeps on fluctuating, then the salary may not be enough and the employee might be underpaid for his efforts. This might affect the employee's morale who may see himself trapped in a wage slavery thus affecting his performance and productivity.

Thus, there will be a general reduction in the value of money and the difference between the real value of money and its face value is the amount that the government will gain from this inflation. This gain of the government is commonly known as *Seignorage* or inflation tax. Hence, as the inflation in a country grows; so will the government's power to transfer the public's wealth for itself.

In the case of inflation, the government is always sure of its gain when the value of money depreciates. The government then gains at the expense of the public that is totally ignorant of the government's plan (in most cases) and is caught unaware.

This type of unjust gain is termed as *Riba al- Fadhuly* (interest with extra commodity) by the Islamic scholars and is totally forbidden. This practice is completely unjust and prohibited by common ethical standards as ruled out by the holy *Qur'an* and *Sunnah*. Islam does not allow any form of dealing involving *Riba* (interest) as this form of practice gives one an opportunity to gain something without any effort or hard work, and hence, is not tolerated in the *Shari'ah* value pattern. *Allah (swt)* says:

“O you who believe! Devour not usury, doubled and multiplied; but fear Allah. that you may (really) prosper.”¹

One main reason why *Allah (swt)* has prohibited *Riba* (interest) is that, the lender is always sure of his gain. Thus it does not involve any risk or hard work on the part of the lender. On the other hand, the borrower is sure to lose as he will have to pay an additional sum more than what he had borrowed in the first place.

¹ Stanlake G, “Starting Economics”, Longman Group Limited, p218.

¹ *al-Qur'an*, Surah *al-Imran* (3:130)

Hence, it is a practice by which a person can easily exploit another who may be in dire need of money for one reason or the other. This exploitation of man by another is what is disliked in Islam. Moreover, it is totally against the teachings of Islam which stresses justice and equality for all times.

Advantages of the Gold Standard: A *Shari'ah* Perspective

Most Islamic scholars asserted that, the usage of fiat money as a medium of exchange should be replaced by another medium that would be fair and just; preferably gold. One advantage would be that the government will not be able to exercise total control over it as is the case of paper money. The government will no longer be able to issue more gold than is available as was the case with the paper currency where the government can print as much currency as it wishes. After all, how much will it cost to print a piece of paper? The value of gold will only change when a new gold mine is found but that too will not be a severe change. Moreover, the value of gold will eventually stabilize after a period of time.

A second advantage of gold is that, there will be no *Riba al- Fadhuly* (interest with extra commodity) as the government will no longer be able to fully influence the circulation of gold or its creation. However, the chance of exploitation will still occur because the gold coin may be debased. Debasement of a gold coin would mean that, it will have less gold in it than is stated on the coin.

This form of exploitation was quite common during the days when the gold coin was in use. The prince or king of a place would reduce the amount of gold in the coin and cheat his people. He would then keep the extra amount in the royal treasury for his own personal use and comfort. Hence; if a coin stated that, it was a 1.00 ounce coin, in reality it may have contained about 0.8 of an ounce.

This issue must be resolved before we decide to use the gold *Dinar* again as it is not much different from the exploitation that one suffers at the hands of paper money. Moreover; the whole purpose of *Dinar* or gold coin would then be destroyed.

A solution to this could be an auditing body that would inspect the gold coins to check whether they have the stated amount of gold in them or not. This is just like the quality control department in some firms, which check whether the quality of their goods is up to the standard or not.

Islamic *Dinar*: A *Shari'ah* Justified Model of Currency

Reversing to the gold standard is not possible if a country alone decides to adopt it unless a unanimous step of the Muslim world is taken positively. The first problem it would face is that of whether other countries will be willing to pay in gold coins or not. After all, it would definitely need the support of fellow countries to introduce the gold money as currency and also to economically survive while using it.

For this reason it is important that a number of countries join hands together to make a joint effort towards establishing the gold standard. These countries will then trade with one another using gold coins thus creating enough market for them to encourage the other countries that are hesitant to use them. These countries will then feel more comfortable with their usage and may even adopt it themselves if it is successful.

So far, only the Muslim countries begin to think of adopting this approach seriously. The first and foremost requirement of adopting the gold standard would be for

the Muslim countries to unite. They will all have to sit together on one platform and discuss the method that is viable for them under the circumstances.

Islamic *Dinar* vs. Euro

It might seem that the effort of the Muslim countries to create an Islamic *Dinar* is similar to the efforts of the European Union to adopt the Euro. This statement however, is far from the truth.

The European Union's job was a lot easier than that of the Muslim countries due to a number of factors that need to be explained for better understanding of the whole scenario.

- The European countries already had a strong representative organization by the name of the European Union, which is respected by all. The Muslims also have the OIC (Organization of Islamic Conference), which perhaps does not have enough authority or power to make important decision. This is very unfortunate as Islam is the second largest religion on earth and a large number of nations are Muslims whereas the organization that represents them is weak one and can barely fight for their cause. This means that the Muslims will have to make OIC stronger so as to empower it to make such an important strategic decision. For this, they will have to first unite themselves and ensure that they will support any decision made by OIC either financially or in any other way possible. This should then enable OIC to unite the Muslim nations into accepting the need for a single currency that will be used by them all.
- Another factor that differentiates the Muslim nations from their European counterparts is that, the European nations have more unity than the Muslim nations. They all trust and respect each other. In other words, the European Union is like an umbrella that further brings them together.
- The European countries know and understand that they will become prosperous and successful only if they cooperate with one another. Their strength lies in their ability to unite for the same cause and this is exactly the strategy that they have adopted. The Muslims on the other hand, unfortunately lack the unity that would put them in a position to join hands together and make such an important decision. One reason for the lack of unity is that, Muslim countries are too busy solving their internal problems to pay attention to other problems. This fact can be clearly stated by the war in Palestine that has directly or indirectly affected Muslim countries around the globe. Then there is the fight in Bosnia and Kashmir whereas Somalia is busy in its battle with famine, hunger and starvation. Moreover, some Muslim countries are having conflicts with one another, which makes this goal of Islamic *Dinar* even more difficult. How can a unanimous goal be achieved if opposing parties are present at the table? The European countries were fortunate that they did not have to face many of these problems but that does not mean that they did not face any problems at all.
- A major problem that they faced was the level of interest in the Euro was different for every country. Some countries were very enthusiastic as they had much to gain whereas others were lukewarm since the transition from a national currency to the Euro would not do much for their country's economy. In fact, some of the countries might even be affected adversely. To

solve this problem, the European countries decided to create a fund whereby the countries that would suffer from the Euro could be financially assisted. This would remove their fears of economic suffering and they too will be able to have at least some benefits from the Euro. The Muslim countries are also faced with the same dilemma and will have to decide their approach.

- Another problem for the Muslim countries is that, each country has its own distinct culture even though the religion is the same. Some countries might look upon this single currency as a step away from their tradition and will end up opposing the whole plan. The European countries did not have to overcome this obstacle as the culture and tradition of the European countries is almost the same with very minor differences.
- The value of the currencies in the Islamic world varies tremendously, for example the currency of Malaysia is much stronger than that of Pakistan and Bangladesh. The US Dollar is equivalent to 3.8 Ringgits whereas the value of the Bangladeshi Taka and the Pakistani Rupee is much lower. The question here is that, at what value should the Islamic *Dinar* settle itself ? The Malaysian government might not be willing to accept a currency that is lower in value than their own whereas Pakistan and Bangladesh will not go for a higher currency as it will affect their economic performance.

Significance of the Islamic *Dinar*

A number of advantages are to be gained if the Islamic countries finally decide to unite and create a single currency. These significances are itemized as follows:

- The Muslim countries will be using a currency that will be acceptable to all. The countries dealing with the Muslim countries will know that the gold in itself has value and will not worry about its depreciation or vice versa. This will result in a lot of trade among the Islamic countries and also the rest of the world.
- It will encourage trade and commerce among the Muslim nations. Even though there are many Muslim nations in the world, with very low level of trade and commerce existing among them. A single currency will make it easier for the Muslim countries to trade with one another and thus bring them closer in line with the broad principles of *Ukhwah* (brotherhood).
- By fostering closer ties among the Muslim nations and also better trade relations, the Muslim countries will no longer be as dependant on other non-Muslim countries as they currently are.
- Presently, some Arab countries sell oil in US Dollars as they feel secure knowing that it will not lose as much through depreciation than other countries. These countries can then revert to the Islamic *Dinar* and ask for payments in that currency. At one hand, they will benefit because, there is a very low chance that the gold coin will lose value. On the other hand, it will help the Muslim countries as a whole by ensuring that the rest of the world will use their currency. Hence, the Islamic *Dinar* will make the Muslim countries financially stronger and will alleviate their current plight.

It can also be ascertained from history that the gold coin was used during the reign of the second caliph ‘Umar Ibn al-Khattab². At that time, the *Dinar* and *Dirham* went hand in hand whereby *Dinar* was a relatively stronger currency as compared to *Dirham*. This was solely due to the quantity of gold that the coin contained. What this meant was that, since 7 *Dinars* contained the same amount of gold as 10 *Dirhams*. Therefore, they had a ratio of 7 to 10. A person willing to buy 10 *Dirhams* must pay 7 *Dinars* for it and vice versa. Thus, the concept of using gold coin or the Islamic *Dinar* is not new to the Muslim world. Therefore, to submit that, the gold coin system worked very well for them so there is no reason to contend that it should not work well for us too.

Final Remarks

The concept of Islamic *Dinar* is not new and was in use long before the paper currency came into existence. The inherent flaws in the paper currency make it unsuitable for the use as a medium of exchange and hence needs to be rejected.

A viable alternative would be to revert to the gold standard and use gold coin that we can name the “Islamic *Dinar*”. There are numerous benefits associated with the usage of this mode of currency if implemented successfully. Those of importance for the Muslim world are the factors that it will help the Muslim countries unite; make them stronger financially and also aid in increase trade between them. The Muslim countries will have to join hands in this effort to create the Islamic *Dinar* which will not only provide the world with economic stability but will also be responsible for bringing the Muslim world closer together. Although, Malaysia together with few other Muslim Nations struggles hard to make the dream comes true, but may not be accurately possible unless all Muslim nations are united to achieve the goal and hence, the unity among Muslim countries is essential or rather the foundation for success.

² Siti Mariam Abdul Mutalib “The prospect for Islamic *dinar* currency: A common currency for all Muslim countries”.

Understanding Riba and Gharar in Islamic Finance

By
Camille Paldi *

ABSTRACT

The philosophical and conceptual foundations behind the prohibition on riba (interest) and gharar (uncertainty) can be derived through the Shuratic process in discursive interpretation of the Qu'ran and Sunnah. Riba (interest) is in fact just a form of gharar (uncertainty). Gharar (uncertainty) opens the door for speculation, ruthless greed, immorality, and social decay. Both riba (interest) and gharar (uncertainty) result in social harm in the form of inflation, unemployment, volatility, instability, and environmental degradation. Riba (interest) and gharar (uncertainty) are both prohibited under Shari'ah as their harm outweighs any benefit, however, gharar (uncertainty) is allowed in instances where the benefit outweighs the harm.

Keywords: *Riba* (Interest); *Gharar* (Uncertainty), Islamic Finance *Shari'ah*

Introduction

In Islam, it is permissible to trade money for commodity, commodity for commodity, however, not money for money as this produces *riba* (interest). *Riba* (interest) is in fact just a form of *gharar* (uncertainty). *Riba* (interest) and *gharar* (uncertainty) are both prohibited under *Shari'ah* as their harm outweighs any benefit, however, *gharar* (uncertainty) is allowed in instances where the benefit outweighs the harm.

Riba

The *Shari'ah* allows for transactions where both counter-values are transacted at the time of the dealing or one counter-value now and one in the future, however, not both counter-values in the future as this creates *gharar* (uncertainty) about the fulfillment of the contract. However, this is allowed where the benefit outweighs the harm.

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Since in interest financing, one counter-value is certain, the interest on the loan, and one counter-value is uncertain, the yield from investing the loan by the creditor, interest-finance is in fact an extreme case of *gharar* (uncertainty) and is prohibited under the *Shari'ah* as the harm outweighs the benefit. Saadallah says that in the case of *riba* (interest), the “variance in certitude between the two counter-values, the interest on the one hand and the opportunity cost on the other, constitutes the essence of the injustice of imposing interest on loans” (2009:111). Debt-finance replicates the result of interest-based financing and does not fulfill the requirements of the *Shari'ah*. Dusuki says “For a contract to be valid, there should be *Iwadh* or counter value present. Three elements of *iwadh* that should exist are risk (*ghorm*), work and effort (*ikhtiar*) and liability (*daman*). In the majority of debt-financing contracts, one or more of these elements of *Iwadh* are missing. If there is no risk, effort and liability, then such a contract cannot be considered to contain any element of justice” (2011:3).

Ridha Saadallah states that an often-cited reason for the *Qu'ranic* ban on interest is to “forestall injustice, since increasing the amount is in return of the time-term” (2009:111). Islam does not recognize the time value of money as time cannot be the sole consideration for an excess amount claimed in an exchange. Saadallah says the excess amount must be claimed against an asset or commodity and not time as this would result in a money-money transaction. Taqi Usmani explains “Time of payment may act as an ancillary factor to determine the price of a commodity, but it cannot act as an exclusive basis or and the sole consideration of an excess claimed in exchange of money for money” (2000:10). Commodity-commodity and money-commodity transactions are allowed, however, not money-money transactions as this may result in (*riba*) interest. Interest financing leads to a false economy, creating instability, inflation, unemployment, and cyclical crashes. Islamic finance is asset-backed, which creates a real economy with real assets and inventories and promotes stability as well as creates an economy where speculators and bankers cannot crash markets for profit through greedy and reckless behavior. According to Taqi Usmani “Interest-based financing does not necessarily create real assets, therefore, the supply of money through the loans advanced by the financial institutions does not normally match with the real goods and services produced in the society, because the supply is increased, and sometimes multiplied without creating real assets in the same quantity” (2011:10). Usmani explains that “This gap between the supply of money and production of real assets creates or fuels inflation” (2011:10). In contrast, Usmani says “Since financing in an Islamic system is backed by assets, it is always matched with corresponding goods and services” (2011:10).

In an interest- based loan, the creditor receives a fixed rate of return no matter how much profit or loss the venture makes. If the venture makes a lot of money, the creditor receives a fixed rate of return. It would be more just if the creditor shared in the profits rather than just receiving a low fixed rate of return in the form of interest. If the venture makes a loss, the creditor still receives a fixed rate of return and the debtor bears the risk of the loss. It would be more equitable if the creditor shared in the loss rather than receiving an abnormally high rate of return in the form of interest. *Riba* (interest) results in a financial system where the debtors bear the majority of the risk and the creditor most of the reward.

According to Sheikh Wahba al Zuhayli, “*Riba* is a surplus of commodity without counter-value in commutative transaction of property for property” (2006:25). The intent of such a transaction is a surplus of commodities. Therefore, the definition of *riba* includes both credit *riba* and invalid sales, since postponement in either of the indemnities is a legal surplus without perceivable material recompense, the delay usually due to an increase in compensation (Zuhayli, 2006:25). In Islam, money – money

transactions are not allowed and there is no time value of money concept. Taqi Usmani explains that “Any excess amount charged against late payment is *riba* only where the subject-matter is money on both sides” (2011:10). Furthermore, “Any excess claimed in a credit transaction (of money exchange of money) is against nothing but time” (Usmani, 2011: 10).

There are two types of *riba* forbidden in Islam, credit and surplus *riba*. “Credit *riba* is taken against a delay in settlement of a due debt, regardless whether the debt be that of goods sold or a loan” (Zuhayli, 2006: 26). Therefore, “Credit *riba* occurs due to their inclusion of an increase in one of the two exchanged goods without any counter-value (Zuhayli, 2006: 28). The impermissibility of exchanging equal amounts is due to the resulting increase in value. Zuhayli explains that this is because neither of the contracting parties would usually accept to postpone the receiving of the payment save if there were some benefit in form of increase in the value thereby (Zuhayli, 2006: 28). Credit *riba* represents a violation of the ‘hand to hand’ rule when one or both counter-values of a transaction are postponed to a future date (of goods of same genus). *Riba* of delay or credit *riba* prohibits sale of commodities in the future even if the counter-values are equal (Ahmed, 2011:32).

Ubaid b. al-Samit (Allah be pleased with him) reported Allah’s Messenger (may peace be upon him) as saying: Gold is to be paid for by gold, silver by silver, wheat by wheat, barley by barley, dates by dates, and salt by salt, like for like and equal for equal, payment being made hand to hand. If these classes differ, then sell as you wish if payment is made hand to hand (Muslim, book 10, number 3853) (Visser, 2009: 34).

The six goods mentioned in this hadith are *ribawi* goods. Violation of “same for same” can lead to *riba* of excess (*riba al fadl*) or surplus *riba* and not fulfilling “hand to hand” (i.e. spot transaction) would constitute *riba* of delay (*riba al nasi’ah*) or credit *riba* (Ahmed, 2011: 31). Furthermore, “gold for gold” and “silver for silver” provides the rules of monetary exchange (*sarf*) during this time (Ahmed, 2011:31). If there is exchange among the same specie of *ribawi* goods, it has to be done on the spot and should be of equal quantities (Ahmed, 2011:31). If the quantities exchanged differ, even in spot transactions, then it will constitute *riba* of excess (*riba al fadl*) or surplus *riba* (Ahmed, 2011:31). Rules of *riba* of excess also prohibit exchange of dissimilar quantities of a genus with different qualities (such as exchanging one unit of high quality dates with two units of low quality dates) (Ahmed, 2011:31). According to Visser, there is a ban on exchanging, for example, two low-quality dates for one high-quality date, even if it is permitted to sell the low-quality dates for money and use the receipts for buying a high-quality date (2009: 35).

Zuhayli says that “Surplus *riba* is the sale of similar items with a disparity in amount in the six canonically-forbidden categories of goods; gold, silver, wheat, barley, salt, and dry dates” (2006: 26). It is the violation of the ‘equal for equal’ rule in spot transactions of the same goods of a particular genus. Zuhayli explains that “This type of *riba* is forbidden in order to prevent it being used as a pretext to committing credit *riba*, such that a person sells gold, for example, on credit, then pays back in silver more than the equivalent of what he had taken in gold” (2006: 26). To avoid *riba*, the commodity has to be exchanged with some other genus and then traded with the desired commodity (high quality dates with wheat or silver and then wheat or silver with low quality dates) (Ahmed, 2011: 32).

Narrated by Abu Said Al-Khudri and Abu Huraira: Allah's Apostle appointed somebody as a governor of Khaibar. That governor brought to him an excellent kind of dates (from Khaibar). The Prophet asked, 'Are all the dates of Khaibar like this?' He replied, 'By Allah, no, Oh Allah's Apostle! But we bartered one Sa of this type (type of dates) for two SAs of dates of ours and two SAs of it for three of ours.' Allah's Apostle said, 'Do not do so (as that is a kind of usury) but sell the mixed dates (of inferior quality) for money, and then buy good dates with that money' (Bukhari, vol. 3, book 34, no. 405; see also Muslim, book 10, number 3875)(Visser, 2009:34).

The legal cause for the impermissibility of exchanging different amounts of edibles is, according to the Hanafi and Hanbali Schools, volume and weight; according to Imam Malik, its qualities being nutritious and storable; and for Imam Shafi, the mere fact that it is edible (Zuhayli, 2006: 39).

Gharar

Gharar (uncertainty) originates from the Arabic verb *gharra*, which means to deceive. The word for gambling in Arabic, *maysir*, comes from the word *yasira*, which means to be easy and *yassara*, which means lucky chance or easy success at getting something of value without earning it (Kamali, 2000: 151). Various classifications of *gharar* (uncertainty) include pure speculation where the outcome depends on chance or gambling, uncertain outcome where the counter-value is uncertain or not realized, inexactitude of object, and unknown future of object. Speculation according to Kamali is the purchase and sale of an asset in the expectation of a gain from changes in the price of that asset (2000: 147). These conditions allow for the use of deception for material gain at the expense of the well-being of one of the parties and humanity as a whole.

According to Kamali "The *Qu'ranic* prohibition of *maysir* is based on the premise that an apparent agreement between the two parties is in actuality the result of unclean and immoral inducement, which is driven by the hope of making a profit at the expense of the other party to the agreement" (2000:152). "The gambling parties thus court a risk, which is of their own creation and which involves both the hope of gain as well as the fear of loss in a way that is not a necessary part of any of the normal activities in life" (Kamali, 2000:152). Kamali explains that "If in a contract of sale one party receives what was due to him, but the other does not and the latter's side of the bargain is open to risk-taking (*mukhatarah*) of a kind that frustrates and nullifies his right, then the sale partakes both in *gharar* and gambling at the same time" (2000:154).

Gharar (uncertainty) can be related to risks arising from lack of knowledge about the contract (object, price, time of delivery), uncertainty about the existence and delivery of the object, and /or uncertainty of the outcome. Basically, *gharar* (uncertainty) relates to risks arising in contracts that dilute the pillars and objective of sale. Al Karshi states that the legal cause (*illah*) of the prohibition of *gharar* (uncertainty) are the inability to complete the sale, fairness in contracts including preventing the unjust devouring of people's wealth (*akl al-mal bi'l-batil*) and the inequality in the counter-values of sale, and preventing the potential for dispute and hatred. Kamali explains that "*Gharar* occurs in a contract when one of the parties takes what is due to him but the other does not receive his entitlement. If his right continues to be unfulfilled, the first becomes guilty of the wrongful devouring of the property (*akl al-mal bi'l-batil*) of his counterpart in the transaction, and a *gharar* sale of this kind engages in gambling and punting (*al-qimar wa'l maysir*), which the *Shari'ah* has forbidden (2000:90). Devour not each other's properties unlawfully unless it be through trading by your mutual consent (*al Nisa*, 4:29).

Kamali emphasizes that gambling or *qimar* is a combative relationship between two contracting parties, each of whom undertakes the risk of loss and the loss of one means gain for the other (2000:151). Kamali says that it is a violation of the law of equivalence, a kind of robbery by mutual agreement, like dueling, which is murder by mutual agreement (2000:151). “Gambling also consists of an appeal to chance, and making chance the arbiter of one’s conduct is to subvert the moral order and stability of life. It focuses attention on material gain and unwarranted reward in a way that is usually impulsive and can be so overwhelming as to divert attention from the pursuit of worthier activities in life” (Kamali, 2000:151). Kamali elaborates “Gambling destroys cooperation and fraternity in favor of combativeness and the desire to win, and it has no harmony with the normal processes that are important to civilization. It is characterized as a morally unclean activity, which sows the seeds of enmity and hatred among fellow human beings, as well as creating a barrier to piety, spiritual awareness, and the remembrance of God” (2000:151).

Prohibited *gharar* (uncertainty) must fulfill four conditions. *Gharar* has to be large as small amounts do not invalidate a contract; *gharar* must be in commutative (exchange) contracts; *gharar* should be linked to the principle object of the contract and not something attached to it; and *gharar* is allowed in cases of public need or necessity. Kamali states “*Gharar* is, however, a broad concept and may carry different shades of meanings in different kinds of transactions” (2011: 84). For instance, there may exist strong, medium, or weak *gharar* (uncertainty) in a contract and according to various scholars and schools, each form of *gharar* (uncertainty) may be permissible or impermissible. Mawil Izzi Dien explains that “This prohibition (on *gharar*) is deduced by examining various contracts, which are prohibited because of inherent *gharar*, such as the prohibition of exchange of that which is not measurable for that which is measurable, *makil*, and the prohibition of exchanging dry dates for fresh ones” (2004:74).

Gharar (uncertainty) can be found in the essence or object of the contract. It occurs in the essence of the contract when there are two sales in one, down-payment (*Arbun*) sales, conditional sales, or pebble, touch, or toss sales where the sale depends on an unrelated event, suspended (*mu’allaq*) sales where the sale is realized based on the outcome of a random event, and future sales, where the delivery of both counter-values occurs in the future and there is a sale of debt- for- debt or *bai al kali bi al kali*. Kamali says that in terms of pebble, touch, and toss sales (*al-mulamasah wa’l munabadh*), sales such as the offspring of an unborn animal (*habal al-habala*) or the sale of fruit prior to its ripening, sale of the unseen, sale of that which is unknown (*bai al-ma’dum wa’l-majhul*), and sales in which the vendor cannot deliver are forbidden because of the presence of risk-taking (*mukhatarah*) that involves devouring the property of others (2000:90). In terms of *Arbun* sale, it refers to a sale in which the buyer deposits money with the seller as part payment of the price in advance, but agrees that if he fails to ratify the contract, he will forfeit the deposit money, which the seller can then keep (Kamali, 2000:90). The question to be asked in all of these is whether they involve unlawful appropriation (*alk al-mal bi’l-batil*) and, if so, the sale is invalid and partakes of gambling (Kamali, 2000:154).

In terms of *gharar* in the object of the contract, ignorance of the object can exist in the object itself, the type of object, or the attributes and features of the object. There can be ignorance of the genus, species, attributes, quantity of the object, specific identity of the object; time of payment in deferred sales, inability to deliver object; time of payment

in deferred sales; inability to deliver object; contracting on a non-existent object, and not seeing the object (Ayub, 2007:60). Even if all conditions of contract are fulfilled, the object has to be seen in relation to non-existent objects. Ibn Qayyim and Sanhuri classified four cases: (1) When the object exists in essence, but comes into completion thereafter; (2) when the object is non-existent at the time of contract, but certainly exists in the future; (3) when the object is non-existent at the time of contract and the existence in the future is uncertain; and (4) when the object is non-existent at the time of contract and is expected not to exist in the future. Kamali elaborates that “of these four types, only the last two present situations in which *gharar* is deemed to be excessive and would, therefore, invalidate the contract are disallowed (2000:91). Kamali explains that “as for the first two, Ibn Qayyim and al-Sanhuri have both concluded that *gharar* in them is negligible and the sale in both cases is therefore valid” (2000:91). Ayub says that in order to avoid uncertainty, Islamic law denies the power to sell (1) Things which, as the object of a legal transaction, do not exist; (2) Things which exist, but which are not in possession of the seller or the availability of which may not be expected; (3) Things which are exchanged on the basis of uncertain delivery and payment (2007: 60).

The lack of knowledge in terms of contract and object and non-existence of object creates risk (*gharar*). In *Shari'ah*, risks cannot be sold separately (unbundled) as this does not fall under the category of *mal* (property). Ignorance and non-existence of object cannot be compensated with price and risk itself cannot be priced and sold, but risk associated with sale can be priced and sold (bundled risk). In order to illustrate this point, Kamali interestingly points out that in the case of options, the sale is valid even though one of the counter-values consists merely of granting a right, or a privilege, as opposed to a tangible

asset, service or usufruct (*manfa'ah*) that has no concrete reality and existence at the time of contract as it can be bought and sold in the same way as a tangible asset, or *mal*” (2009:194). This is of course debatable amongst the scholars and the different schools of Islamic jurisprudence. Kamali points that “the *Shafi's* and *Hanbalis* include usufruct under the definition of (*mal*) property, but the *Hanafis* and *Malikis* do not” (2000:194). According to Kamali, the option price or premium is normally paid in cash and the price is in this case *mal* (property) (2000:201). In a contract of sale, each party must receive the counter-values, the object of sale and price. This is referred to as *qabd* and *taqabud*. The seller must deliver the goods (*taslim*) and the buyer must take possession (*qabd*). In *salam* and *istisnaa*, the requirement of *qabd* has been omitted due to necessity of the people (Kamali, 2009: 122).

According to Visser, “the ban on *gharar* (uncertainty) implies that commercial partners should know exactly the counter-value that is offered in a transaction” (2009:45). Kamali states that *gharar* can be summarized in four main ways. These are on account of uncertainty and risk pertaining to the existence of the subject matter of a sale, or its availability, uncertainty about the quantities involved and lastly, uncertainty about time of completion and delivery (2000:93). Visser says that in order to avoid *gharar* (uncertainty), “one should make sure that both the subject and prices of the sale exist and that parties are able to deliver; specify the characteristics and the amounts of the counter-values; and define the quantity, quality, and date of future delivery” (2009:45). Visser also says that “a seller/financier first must own the goods before they can sell or lease them, which implies that the goods must exist before they can sell or lease them” (2009:75). One should also possess or constructively possess the subject-matter of sale before sale (*qabd*). Another aspect of *gharar* (uncertainty) concerns

complexity in contracts. A contract should not cover more than one transaction and thus, there is a prohibition on two sales transactions in one. For example, Visser says that a sales transaction and a lease agreement cannot be combined into one contract (2009:75). Visser explains that Muslim jurists treat the ban on *gharar* (uncertainty) as an injunction to maintain commutative justice or the just price, which is the market price (2009:47). Before entering into a contract, both parties should have full knowledge of relevant facts, including the market price (Visser, 2009:47). Ayub says that to avoid *gharar* (uncertainty), the contracts must be free from excessive uncertainty about the subject-matter and its counter-value in exchanges; the commodity must be defined, determined and deliverable and clearly known to the contracting parties, quality and quantity must be stipulated, a contract must not be doubtful or uncertain so far as rights and obligations of the contracting parties are concerned, there should be no *Jahl* or uncertainty about availability, existence, and deliverability of goods and the parties should know the actual state of the goods (2007:61).

Mawil Izzi Dien says “The prohibition related to these contracts is established due to the potential for deception that could result from not knowing the quantity of one of the exchanged commodities” (2004:74). *Gharar* (uncertainty) leads the financial system into a zero-sum game, where one’s benefit is someone else’s loss. However, *gharar* is allowed in circumstances where the harm outweighs the benefit. Kamali says “Should there be a public need for it, *gharar*, even if excess priority by virtue of the *Qu’ranic* principle of removal of hardship” (2011:84). The *Shari’ah* thus validates *salam* (advance purchase) and *istisna’a* (manufacture contract) regardless of the *gharar* (uncertainty) elements therein, simply because of the people’s need for them” (2010: 85). However, *gharar* is for the most part prohibited as it promotes immorality, moral and social decay, societal disintegration, volatile markets and financial instability, and opens the door for deception and ruthless greed. In fact, according to Ibn Taymiyyah, “the evil of gambling is greater than *riba*, for gambling combines two evils: the unlawful acquisition of property and the playing of an unlawful game, both of which are *haram*” (Kamali, 2000:151).

Conclusion

Despite clear rules on *riba* (interest) and *gharar* (uncertainty) found in the *Shari’ah*, Islamic finance and banking today still incorporates elements of *riba* (interest) and *gharar* (uncertainty) in its practice as well as utilizes debt rather than equity-financing.

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Adoption of AAOIFI Shari'a Standards: Case of Pakistan*

The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI):

Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) is an independent body dedicated to the development of international standards applicable for Islamic financial institutions. The Bahrain-based organization was registered as an international autonomous nonprofit making corporate body in 1991 and started producing standards in 1993. AAOIFI is supported by institutional members including central banks, Islamic financial institutions, and other participants from the international Islamic banking and finance industry. To date AAOIFI has developed standards related to accounting (26), auditing (5), governance (7), ethics (2) and Shariah (45) for Islamic financial industry.

Investment Sukuk

Shari'a Standard No. 17 is applicable to Investment Sukuk and these sukuk include sukuk of ownership of leased assets, ownership of usufructs, ownership of services, Murabaha, Salam,

Istisna'a, Mudaraba, Musharkaha, investment agency and sharecropping, irrigation and agricultural partnerships according to the scope of the standard. The standard does not apply to shares of joint stock companies, certificates of funds and investment portfolios. This standard has been explained through six main clauses including the first clause of Scope and the last clause describing the issue date of the standard.

Second clause of the standard defines investment sukuk as "Certificates of equal value representing undivided shares in ownership of tangible assets, usufruct and services or (in the ownership of) the assets of particular projects or special investment activity, however, this is true after receipt of the value of the sukuk, the closing of subscription and the employment of funds received for the purpose for which the sukuk were issued". Investment sukuk have been designed under this standard in a way that these are distinguished from shares and bonds.

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Source: State Bank of Pakistan, Quarterly Islamic Banking Bulletin

Third clause of the standard discusses types of investment sukuk in detail. This clause has been divided into two nine sub-clauses;

1. **Certificates of ownership in leased assets** have been defined as certificates of equal value issued either by the owner of a leased asset or a tangible asset to be leased by promise or these are issued by a financial intermediary acting on behalf of the owner with the aim of selling the asset and recovering its value through subscription so that holders of the certificates become owners of the assets.
2. **Certificates of ownership of usufruct are certificates** of equal value issued by the owners of an existing asset either on his own or through a financial intermediary with the aim of leasing /sub-leasing the asset and receiving the rental from the revenue of the subscription so that the usufruct of assets passes into ownership of the holders of the certificates. These certificates have been further explained through two categories
 - i. Certificates of ownership of usufruct of existing assets and
 - (ii) Certificates of ownership of usufruct of described future assets.
3. **Salam Certificates** are certificates of equal values issued for the purpose of mobilizing Salam Capital.
4. **Istisna Certificates** are certificates of equal values issued for the purpose of mobilizing funds to be employed for the production of goods.
5. **Murabaha Certificates** are certificates of equal values issued for the purpose of financing the purchase of goods through Murabaha.
6. **Musharakah` Certificates** are certificates of equal value issued with the aim of using the mobilized funds for establishing a new project, developing an existing project or financing a business activity on the basis of any partnership contracts so that the certificates holders become the owners of the project or the assets of the activity as per their respective shares. Musharkaha Certificates can be managed on the basis of
 - (i) Partnership certificates, (ii) Mudaraba sukuk and (iii) Investment agency sukuk.
7. **Muzara'a (sharecropping) Certificates** are certificates of equal value issued for the purpose of using the funds mobilized through subscription for financing a project on the basis of Muzara'a so that the certificate holders become entitled to a share in the crop according to the terms of agreement.
8. **Musaqa (irrigation) Certificates** are certificates of equal value issued for the purpose of using the funds mobilized through subscription for financing a project on the basis of Musaqa so that the certificate holders become entitled to a share in the crop according to the terms of agreement.
9. **Mugharasa (agricultural) Certificates** are certificates of equal value issued for the purpose of using the funds mobilized through subscription for financing a project on the basis of Mugharasa so that the certificate holders become entitled to a share in the crop according to the terms of agreement.

Fourth clause through its five sub-clauses explains in detail the characteristics of investment sukuk. The clause after defining investment sukuk as “Investment *sukuk* are certificates of equal value issued in the name of the owner or bearer in order to establish the claim of certificate owner over the financial rights and obligations represented by the certificate” explain that these sukuk do not represent a debt owed to the issuer by the certificate holder. The clause further explains that owners of these certificates share the return in accordance to the subscription prospectus and bear the loss in proportion to the certificates owned by them while their trading is subject to the terms that govern trading of the rights they represent.

Fifth clause of the standard contains Shari’a rulings and regulations applicable to this instrument. This clause is divided into two main parts (i) Issuance of Investment Sukuk (ii) Trading of Sukuk and their Redemption.

- (i) **Issuance of Investment Sukuk:** The clause states that it is permissible to issue investment certificates by way of subscription on the basis of any of Shari’a nominated investment contract and the contract of issue has all the legal effects of the contract which occurs after the closing of the subscription and the allotment of certificates. The clause while mentioning the two parties of the contract as issuer and subscribers explain that the relationship between the parties is determined by the type of contract and its status in Shari’a and also by description that this standard provides w.r.t major contracts including (i) certificates of ownership of leased assets (ii) certificates of ownership of usufructs (iii) Salam certificates (iv) Istisna certificates (v) Murabaha certificates (vi) Musharakah certificates (vii) Mudaraba certificates (viii) certificates of Investment agency (ix) Muzara’a certificates (x) Musaqa certificates (xi) Mugharasa certificates.

The clause explicitly describes that the relationship between issuer and subscriber will be governed by applicable contract of issuing sukuk, however, the mere conclusion of the contract will give rise to legal effects with respect to rights and obligations of the parties. The standard also mentions that the issuance of the prospectus would indicate the offer of issuer’s invitation while the subscription will be treated as acceptance¹.

With respect to underwriting the unsubscribed issues the standard allows the institution to underwrite, however, in such case the obligation of the underwriter is based on binding promise. It is not permitted to receive any commission for such underwriting. The standard allows the issuance of sukuk of any term in accordance with the principles of Shari’a; issuance of sukuk without even specifying a period depending upon the nature of contract is also permitted. Furthermore, the standard allows adopting any permissible method of managing risks and of mitigating fluctuations of distributable profits by payment of premiums from the income of the shares of sukuk holders or through their donations.

- (ii) **Trading of Sukuk and their Redemption:** Trading and redemption is permissible after closing subscription, allotment of sukuk and commencement of activity. However for trading /redemption prior to the commencement of activity it is necessary to observe the rules of the contract of Sarf (currency exchange) along with rules for debt (receivables) when

¹ Clause 5/1/8 of the standard contains all details that should be included in the prospectus of issue.

liquidation is complete and the assets are receivables or when assets represented by the sukuk are sold for a deferred price.

The standard permits the issuer to undertake to purchase at market value after the process of completion of issue, however, it is not allowed to purchase at nominal value. The standard allows trading immediately upon issuance and to the date of maturity (but after the passing of ownership of the assets to the holders of sukuk) and also permits any means for trading which is not in conflict with Shari'a. For the redemption the standard allows the issuer to redeem prior to maturity at the market price or at a rate agreed upon at the date of redemption between the certificate holder and the issuer.

Similar to trading in certificates/securities of ownership of assets, the standard allows the trading in securities of ownership of usufruct of tangible assets prior to a contract for sub-leasing the assets as well as the redemption of such sukuk. However, it is not permissible to trade in certificates of ownership of usufructs of a described asset before the asset from which usufruct is to be made available is ascertained, except by observing the rules for disposal of receivables. The standard explicitly describes that trade is allowed in Istisna, Murabaha, Mudaraba, Musharakah, Muzara Musaqa, Mugharasa and investment agency certificates while it is not permitted in Salam certificates.

Adoption of Shari'a Standard No. 17

AAOIFI Shari'a Standard No. 17 related to 'Investment Sukuk' is adopted by SBP for IBIs w.e.f July 15, 2013² with following clarifications/amendments in the continuous process of standardization and harmonization of the Shari'a practices in Islamic banking industry;

Clause No	Original Clause	Amendment/Clarification
Clause 1(Scope of The Standard)	The Standard applies to investment sukuk. These sukuk include sukuk of ownership of leased assets, ownership of usufructs, ownership of services, Murabaha, Salam, Istisna's, Musharaka, investment agency and sharecropping, irrigation and agricultural partnerships. The standard does not apply to shares of joint stock companies, certificates of funds and investment portfolios.	The following clarification is added as the footnote to the clause; "As the standard covers various types of sukuk, in case of any query, the provisions/rulings of relevant mode may be referred. For example, in case of query on Ijarah sukuk, the Shari'a Standard on Ijarah may be referred. Further, AAOIFI Resolution on sukuk issued in February 2008 which provides necessary explanation to the subject standard is also adopted with this standard.
Clause 2	Investment sukuk are certificates of equal value representing undivided shares in ownership of tangible assets, usufruct and services or (in the ownership of) the assets of particular	The following is added as footnote to the clause: "The phrase 'undivided shares' appearing in the clause may be read as 'undivided share.'"

² IBD Circular No. 03 of 2013

	projects or special investment activity, however, this is true after receipt of the value of the sukuk, the closing of subscription and the employment of funds received for the purpose for which the sukuk were issued. In this standard, sukuk have been designated as Investment sukuk in order to distinguish them from shares and bonds.	
Clause 3/2/2	These are certificates of equal value issued for the purpose of leasing out tangible future assets and for collecting the rental from the subscription revenue so that the usufruct of the described future asset passes into the ownership of the holders of the certificates.	The following clarification is added as the footnote to the clause which defines Ijarah Mowsoofa fi Zimmah certificates: "The Ijarah Mowsoofa fi Zimmah" referred to in the clause means Ijarah of described but unidentified assets or services."
Clause 3/2/3	These are certificates of equal value issued for the purpose of providing services through a specified provider (such as educational benefits in a nominated) and obtaining the service charges in the form of subscription income so that the holders of the certificates become owners of these services	The following is added as footnote to the clause: "The phrase 'subscription income' used in the clause may be read as 'subscription revenue'."
Clause 4/3	Investment sukuk are issued on the basis of a Shari'a-nominated contract in accordance with the rules of Shari'a that govern their issuance and trading.	The following is added as footnote to the clause: "The term 'Sharia - nominated' used in the clause may be read as 'Shari'a - compliant'."
Clause 4/4	The trading of investment sukuk is subject to the terms that govern trading of the right they represent.	The following clarification is made with respect to the clause: "The clause may be read as 'The trading of investment sukuk is subject to the terms that govern trading of the assets they represent'."
Clause 5/1/5/2 (c)	The issuer of these certificates is the seller of services; the subscribers are buyers of the services, while the funds mobilized through subscription are the purchase price of the services. The certificate holders are entitled to sell the profits of all the types that are listed at (a), (b), and (c) and are entitled to the income from the resale of such	The following is added as footnote to the clause: "The holders of these sukuk listed at a, b, and c of the clause are entitled to the revenue generated by onward sale of these services."

	usufruct.	
Clause 5/1/5/10 & 5/1/5/11	<p>(a) The issuer of these certificates is the owner (or owner of usufruct) of the land that consists of trees; the subscribers are those who assume the obligation of irrigation through a Musaqah contract, while the realized funds are the maintaining cost of the trees.</p> <p>(b) The issuer of these certificates may be the irrigator (the worker) and the subscribers the owners of the land (investors whose subscription amounts are used to irrigate the land). The certificate holders are entitled to a share of the produce of the trees as per agreement.</p>	The following is added as footnote to the clause: "The phrase 'maintaining cost' in these clauses may be read as 'maintenance cost'."
Clause 5/1/8/4	The prospects must explicitly mention the obligation to abide by the rules and principles of the Islamic Shari'a, and that there is a Shari'a board that approves the procedures of the issues and monitors the implementation of the project throughout its duration.	The following is added as footnote to the clause: "Islamic bank investing in such sukuk shall put in place a mechanism to satisfy itself regarding the Shari'a compliance of the sukuk during its entire duration."
Clause 5/1/8/7	The prospectus must not include any statement to the effect that the issuer of the certificate accepts the liability to compensate the owner of the certificate up to the nominal value of the certificate in situations other than torts and negligence nor that he guarantees a fixed percentage of profit. It is, however, permitted to an independent third party to provide a guarantee free of charge, while taking into account item 7/6 of Shari'a standard No. (5) in respect of guarantees. It is also permitted to the issuer of the certificate to offer some tangible or personal guarantees with respect to its wrongful act or negligence, while taking into account item 3/1/4/3 of Shari'a standard no. (12) in respect of Sharika (Musharaka) and Modern Corporations as well as the contracts stated in that standard.	The following is added as footnote to the clause: "The clause pertains to sukuk based on Shirkatul Aqd and not on those based on Shirkatul Milk."

Clause 5/2/2	In the case of negotiable sukuk, it is permissible for the issuer to undertake, through the prospectus of issue, to purchase at market value, after the completion of the process of issue, any certificate that may be offered to him, however, it is not permissible for the issuer to undertake to purchase the sukuk at their nominal value.	The following is added as footnote to the clause: “The impermissibility of undertaking by the issuer to purchase the sukuk at nominal value is not applicable on sukuk based on ‘Shariktul Milk’ or ‘Ijarah’. Further, the term ‘negotiable sukuk’ used in the clause may be read as ‘tradable sukuk’.”
Clause 5/2/5	It is permissible for the issuer to redeem, prior to maturity, certificates of ownership of leased assets at the market price or at a rate agreed upon, at the date of redemption, between the certificate holder and the issuer.	The following is added as footnote to the clause: “This clause is applicable on sukuk issued on the basis of portfolio of already leased assets only.”
Clause 5/2/7	It is permissible for the issuer to redeem sukuk of ownership of the usufruct of tangible assets from the holder, after allotment and payment of the subscription price, at the market price or at a price agreed upon between the parties at the time of redemption, on the condition that the subscription amount or redemption price is not deferred. See item ¾ of Shari’s standard No. (9) pertaining to Ijara and Ijara erminating in ownership.	The following is added as footnote to the clause: “In cases of sukuk based on sale - and lease - back, the issuer shall not repurchase the leased asset from the sukuk holders before the completion of one calendar year.”
Clause 5/2/14	It is not permissible to trade in Salam certificates.	The following is added as footnote to the clause: “However, trading of Salam sukuk is permissible only after taking delivery of the goods and before their onward sale.”

Sources:

Shari’a Standards for Islamic Financial Institutions, AAOIFI (2010)
Website of State Bank of Pakistan (www.sbp.org.pk)

The Role of Awareness and Perceived Values Upon The Acceptance of Islamic Banking in Dagestan

By
Muhamad Abduh* & Magomed Idrisov

Abstract

Islamic Banking has been introduced in many countries globally for the last three decades. However, in Russia, Islamic Banking and Finance industry is still in its early stages. The study is aimed at examining the role of awareness and perceived values among Dagestanians upon their acceptance towards Islamic banking. Modified theory of reasoned action model was used to examine the factors affecting Dagestanians' behavioral intention to patronize Islamic Banking. Information from 400 respondents was extracted using structural equation model. The findings indicated that awareness, although without having fundamental knowledge about Islamic banking, has a positive influence on intention to support Islamic banking via attitude while perceived values have positive influence on intention to support Islamic banking but statistically insignificant.

Keywords: Islamic banking, awareness, perceived values, theory of reasoned action, Dagestan

Introduction:

The Republic of Dagestan is located in the North Caucasus Mountains. It is the southernmost part of Russia with 50,300 square kilometer area. Dagestan is bordered on its eastern side by the Caspian Sea, Republic of Kalimikiya on the North, Chechen Republic on the West, Georgia on the Southwest and Azerbaijan in the South. Its capital and largest city is Makhachkala, located at the center of Dagestan on the Caspian Sea.

With a population of 2,910,249¹, Dagestan is ethnically diverse (it is Russia's most heterogeneous republic, where no ethnic group forms a majority) with several dozen

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Federal State Statistics Services of Russian Federation
http://dagstat.gks.ru/wps/wcm/connect/rosstat_ts/dagstat/ru/statistics/population/

ethnic groups and subgroups inhabiting the republic, most of which speak Caucasian and Turkic languages. The largest among these ethnic groups are the Avar, Dargin, Kumyk, Lezgian, Laks, Azerbaijani, Tabasaran and Chechen. Ethnic Russians comprise about 3.6% of Dagestan's total population. Russian is the primary official language and the lingua franca among the ethnic groups.

Currently, there are three Islamic financial institutions in Dagestan, namely, LaRiba Finance, Massraf and Fikrah finance and consulting. While Massraf and LaRiba are merely financing institutions, which are running their business on the basis of murabahah and mudharabah, Fikrah is playing a major role in providing knowledge about Islamic banking and finance through seminars and business forums conducted.

With 85% of Muslim population, Dagestan is a big potential market for Islamic banking and finance. However, expanding business with insufficient research and information will not be the best way of doing it. This study is aimed to help practitioners as well as policy makers by examining the level of awareness of bank customers in Dagestan towards Islamic banking and to test whether or not the theory of reasoned action (TRA) is suitable to model their behavioral intention in patronizing Islamic banking. Moreover, it is expected that this study would fill the gap of research done in the area of Islamic banking, particularly in the Republic of Dagestan.

The structure of this paper is as following. Part one provides the introduction that explain about Dagestan and the needs of conducting this study in Dagestan. Part two shows previous related studies with bank customer awareness and the use of perceived values and TRA for bank patronizing behavior. Part three will be the data and methodology and continued by the discussion of the findings in part four. Finally, conclusion, limitations of this study, and suggestions for future researches are drawn in part five.

Literature Review:

The perception of customers is regarded as a major factor for the effective development of the banking industry around the world. For this purpose, many researches had been dedicated to better understand this field which clearly pointed out that understanding and adjusting for changes in consumer behavior is necessary for the bank to remain competitive in the market.

With regard to the area of Islamic banks, there are not many researches done on customer awareness and preferences in choosing banks. One of them was done by Gerard and Cunningham (1997) who conducted a study to examine the level of awareness upon Islamic banking among the Singaporean population. The researcher distributed 405 questionnaires, of which they received 222 responses and only 190 forms were available for analysis. Questionnaires were assorted into two sub groups, Muslims and non-Muslims, 29 Muslims and 161 non-Muslims. They found that 22.6% of Muslim participants selected the religiosity reason, as for non-Muslims 35.4% gave the same reason. Religion and profitability are chosen as the main reason to patronize Islamic banks by 70% of Muslim participants while 37.9% non-Muslims have also chosen the same reasons. As many as 51% of Muslim participants agree that more people will utilize the services provided if there will be more branches, 33.5% of non-Muslims agreed on this. Lastly, 44.9% of Muslim participants said that even if there is no profit for depositors, they will keep their deposits with Islamic banks, where 66.5% of non-Muslims will withdraw their deposit.

Okumus (2005) conducted a case study which was aimed at investigating the use and customer awareness of interest-free products and services provided by the SFHs in Turkey using questionnaires which were distributed randomly to account holders in 5 interest-free financial institutions in Turkey, namely Albaraka Turkish Finance House, Asya Finance House, Anadolu Finance House, Kuwait Turkish Finance House and Family Finance House. The research found that 75% of respondents consider themselves as partly fulfilling Islam's requirements when dealing with Islamic banks and thus 78.3% are aware of Islamic banking products and use wadiah current account while others use mudharabah saving account. However, 36% of respondents still view that there is a lack of products offered by SFHs in Turkey.

In Libya, Gait and Worthington (2009) conducted a study on attitudes, perceptions and motivations of Libyan retail bank consumers towards Islamic banks. As many as 385 Libyan retail bank consumers have responded to their survey. The results indicated that the majority of the respondents have some basic knowledge about Islamic banking and financing, however they are generally unaware of products offered by the industry. Similar findings can be found in Brunei Darussalam via research conducted by Bashir (2013). The study focused on customer satisfaction in the Islamic banking sector in Brunei Darussalam with the objective of examining the effects of awareness and service quality upon satisfaction towards Islamic banking performance in Brunei Darussalam. The research concluded that the establishment of higher levels of awareness would lead to a higher level of customer satisfaction. The results also show that the effect of service quality and product quality on awareness is positive and significant. They also found that 56% of respondents were aware of the instruments used by Islamic banks in financing products and 53.4% were aware about differences between conventional and Islamic banks. Despite its successful approach to the people, the study found that 44% of respondents were strongly agreed that Islamic banks still lack in their marketing effort.

Hussain and Ralf (2007) reported on Australian Muslim awareness and willingness to deal with Islamic financial products. The results indicated that there is willingness of the Australian Muslim community to move to Islamic banks as long as Islamic banking services are competitive with their conventional counterparts. Thus, it is important for Islamic financial institutions in Australia to come out with new Islamic products and services that meet customer needs and demands. Interestingly, the study also found that the Muslim community lacks knowledge of basic rulings and principles of Islamic banks and thus, Islamic financial institutions in Australia must play a big role in educating the Muslim community about Islamic financial products.

Abduh and Omarov (2013) conducted research on Muslim awareness and willingness to patronize Islamic banking in Kazakhstan. The research concluded that, the majority of Muslims are willing to patronize Shariah based products and services. The Kazakh Muslim community also believes that Islamic banks will provide better services to customers. The research also showed that 50% of respondents are aware of Islamic banking products and services but they are not aware of products and services offered by Islamic banks.

Data and Method:

Data

Data collection was done from April 2014 to June 2014 in the capital city of Dagestan, Makhachkala. Out of 500 questionnaires distributed, 100 were discarded, as

they were not fully completed by the respondents. The remaining 400 questionnaires were responded completely and therefore used in the analysis.

Since, the questionnaire was in English and the official language in Dagestan is Russian, the questionnaire was translated into the Russian language prior to data collection process. For this purpose it was translated by a professional and rechecked by language experts in Dagestan. A quality check has been done after the translation process to avoid any problems that could arise during the data collection.

Variables and Model Tested

There are five latent variables measured in this study which are Awareness, Perceived Values, Attitude, Subjective Norms and Intention to Perform. Each of the latent variables has three observed items except for Attitude which has four items (See Table 1).

Table 1. Latent and Observed Variables

	Statement (Observed Item)
Awareness	
1	Islamic banking products and advertisement in Dagestan
2	Contracts in Islamic banks: Murabaha, Mudharabah, Musharakah, Ijarah
3	Profit and loss sharing concept
Perceived Values	
1	I believe Islamic banks will play big role in poverty elimination
2	Islamic banks will serve low income community in Dagestan
3	I believe Islamic bank will fulfill the banking needs of Muslim in Dagestan
Attitude	
1	Patronizing Islamic bank is more shariah compliant
2	Patronizing Islamic bank is more profitable
3	Patronizing Islamic bank is more flexible and beneficial
4	Patronizing Islamic bank is fair for me and the bank
Subjective Norms	
1	People whose opinions I value would support my engagement with Islamic bank
2	People who are important to me think that I should engage with Islamic bank
3	It is expected of me that I should engage with Islamic bank
Intention to Perform	
1	I will seriously consider to patronize Islamic banking
2	I will strongly recommend Islamic banking to others
3	I will definitely become an Islamic bank customers in the future

The understanding of products and services offered by Islamic banks and having enough knowledge on it can be referred to as awareness (Naser, 1999). Furthermore, there is a strong relation between awareness and knowledge, for instance, if people are more informed on a particular product, they will easily participate with that product. Awareness or knowledge on a financial product shall motivate people to act towards that product. In this research, Awareness of Dagestanian people towards Islamic banking will

be categorized as external variables that will influence their attitude towards Islamic banking.

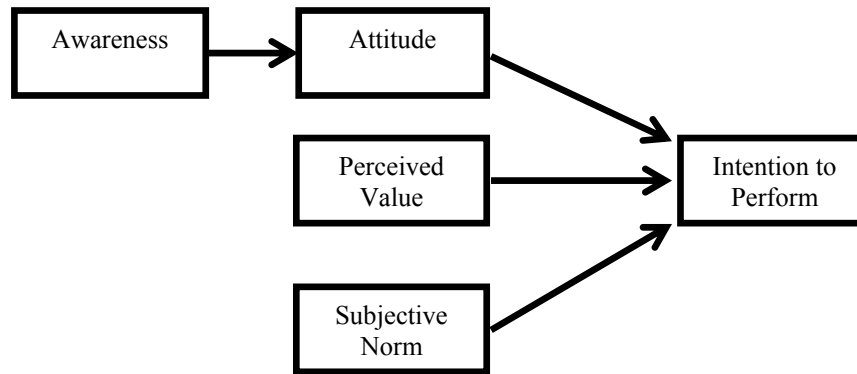


Figure 1. Proposed Model

From the proposed model, as has been portrayed in Figure 1, four hypotheses were developed. The following are the hypotheses of the present research:

- H1: Awareness has a positive effect on the attitude of people in Dagestan to support Islamic banking.
- H2: Perceived value has a positive effect on intention to support Islamic banking in Dagestan.
- H3: Subjective norms have a positive effect on intention to support Islamic banking products and services in Dagestan.
- H4: Attitude has a positive effect on intention to support Islamic banking in Dagestan.

Methods

This study had used structural equation model (SEM) as its statistical analytical tools because it possesses some special features:

1. The model usually perceived indirect measurable and hypothetical construct. For instance, attitude, anxiety, goals motivation, intelligence and socio-economic status can display representatives of such construct.
2. SEM includes an error term for each measure whether it is predictable variable or an expletory. The purpose of such errors is to deal with the potential error of measurement in observed variables.
3. SEM normally fits to matrices of interrelationship indices that is correlation or covariance matrices between all pairs of observed variables.

To assess the degree of fit between the sample and model, following goodness of model-fit-indices was used:

1. $\frac{\chi^2}{df}$ is the fundamental measure-of-fit that provides a mathematical result of the differences between the actual observed covariance matrix and the estimate covariance matrix. Recommended value of Chi-square $\frac{\chi^2}{df}$ is ≤ 5 . However, the value of $\frac{\chi^2}{df}$ is dependent on the sample size and will always be increased with larger size, consequently its value cannot be used only to test model-fit (Abduh, et.al, 2012).
2. Comparative Fit Index (CFI) is one of the mostly used indices to check model-goodness-fit. The value of CFI extents from 0 to 1 and higher value indicate a good-fit-model. CFI value bigger than 0.9 is considered as acceptable and value greater than 0.95 indicates an excellent fit.
3. Root Mean Square Error of Approximation (RMSEA) is very significant method used to check model-goodness-fit. Acceptable value of RMSEA is a value less than 0.08.
4. Normed Fit Index (NFI) calculates the estimate model by equating the Chi-square χ^2 value of the model to the χ^2 value of the null-model. NFI value range between 0 and 1 and NFI value higher than 0.9 indicates a good-fitting model, and 0.95 is an ideal result of NFI.

Findings and discussions:

Descriptive Statistics

It can be seen from Table 2 that the majority of respondents fall under the first two groups by age, which are group below 25 years and group between 25 to 35 years old with the percentage of 44.5% and 27.3% respectively. This is mainly due to the fact that a large portion of the questionnaires were distributed in Dagestan State University. Furthermore, regarding the religion of respondents, almost all of them are Muslim, with only 2% affiliated to another religions. The reason for this is that almost 90% of Dagestan's population is Muslim. As for marital status, married and non-married are almost equal at 48.3% and 51.7% respectively. In terms of education of the respondents shown in Table 2, it can be seen that 46.5% of respondents are holders of Bachelor degrees, final year students are 29.3%, and Masters degrees are only 3.3% and remaining 21% are Diploma holders. As for income level, 164 out of 400 (41%) have an income level below 10000rub per month, 126 (31.5%) between 10000rub – 20000rub, and 90 between 20000rub – 50000rub. The remaining two groups have the lowest share with 3.8% and 1.3% respectively.

Table 2. Demographic Profile of Respondents

		Frequency	Percentage
Gender	Male	224	56
	Female	176	44

Age	< 25 years	178	44.5
	25 – 35 years	109	27.3
	36 – 45 years	58	14.5
	46 – 55 years	33	8.3
	55 and above	22	5.5
Religion	Islam	392	98
	Others	8	2
Marital Status	Married	193	48.3
	Not married	207	51.7
Level of Education	Elementary – High school	117	29.3
	Diploma	84	21
	Undergraduate degree	186	46.5
	Postgraduate	13	3.3
Occupation	Entrepreneur	22	5.5
	Government employee	57	14.2
	Employee of private company	125	31.3
	Student	131	32.8
	Teacher	21	5.3
	Others	44	11
Monthly Income Level	< 10000 rub	164	41
	10000 – 20000 rub	126	31.5
	20000 – 50000 rub	90	22.5
	50000 – 100000rub	15	3.8
	100000 rub and above	5	1.3

Interestingly, the statistic in Table 3 below shows that only 6% out of 400 respondents are familiar with Islamic banking products and advertisement in Dagestan, while 5.8% of them are very familiar. Furthermore, 38.8% of them are less familiar and lastly 49.5% of them are not familiar at all.

Table 3.Respondents' Awareness on Islamic Banking

Observed Items	Not familiar at all		Less familiar		Familiar		Very familiar	
	Freq	%	Freq	%	Freq	%	Freq	%
Islamic banking products and advertisement.	198	49.5	155	38.8	24	6	23	5.8

Contracts in Islamic banks: Murabaha, Mudharabah, Musharakah, Ijarah.	298	74.5	78	19.5	15	3.8	9	2.3
Profit and loss sharing concept.	244	61	113	28.2	27	6.8	16	4

It can also be observed from Table 3 that 298 (74.5%) out of 400 respondents are not familiar at all with any contract in Islamic finance, and 19.5% are less familiar with contracts in Islamic finance. Meanwhile, as many as 3.8% are familiar and 2.3% are very familiar with contracts used in Islamic banks i.e. Murabaha, Mudharabah, Musharakah, Ijarah.

In terms of profit and loss sharing concepts and investing in Halal industries, the results indicate that 61% of respondents are not familiar at all, 28.2% of respondents are less familiar, 6.8% are familiar and 4% are very familiar.

Reliability Analysis

Cronbach's Alpha is one of the most common measurement tools to measure reliability. Nunnally (1978) said that the value of Cronbach's Alpha must be of 0.7 and above. The results have shown good internal consistency values for most of the latent variables except for the awareness which is only 0.659 or below 0.7. Table 4 below indicates the values of Cronbach's Alpha for every latent variable.

Table 4. Reliability Analysis

Latent Variable	Number of Items	Cronbach's Alpha
Awareness (AW)	3	.659
Perceived Value (PV)	3	.879
Attitude (ATT)	4	.895
Subjective Norm (SN)	3	.863
Intention to Perform (INT)	3	.897

Goodness-of-Fit Test

Table 5 provides the values for all model fit indices, before and after modification. At the beginning, the model fit indices demonstrate inadequate results for all of the tested variables. The fit indices before modification are 11.461 for chi – square degree of freedom, 0.757 for CFI, 0.741 for NFI, 0.758 for IFI, 0.715 for TLI and 0.162 for RMSEA.

Table 5. Model Fit Indices

Model Fit Index	Before Modification	After Modification
NFI	0.741	0.947
RFI	0.696	0.932
IFI	0.758	0.967
TLI	0.715	0.958
CFI	0.757	0.967

Chi square χ^2	11.461	2.557
df		
RMSEA	0.162	0.062

If the data in model fit indices are not satisfactory, then there is a need to use modification indexes (MI) to obtain a better fit for the hypothesized model. The examination of MI in this study suggests three primary changes to the model. Firstly, to add double headed arrow of covariance between “Awareness” and “Perceived value”. Secondly, to add double headed arrow of covariance between “Awareness” and “Subjective norm”. Lastly, to add double headed arrow of covariance between “Perceived value” and “Subjective norm”.

After modifications as suggested by MI results, a good improvement was observed such as increased in CFI from 0.757 to 0.905, GFI from 0.739 to 0.857 and decreasing in RMSEA from 0.162 to 0.103. The next suggestions from MI were to add double headed arrow relationship between e1 and e2, between e1 and e3, between e2 and e3, between e11 and e12, between e12 and e13 and lastly between e6 and e7.

After all those modifications the model has shown very good results of goodness of

fit. The following results were obtained chi-square to degrees of freedom (χ^2/df) = 2.557, CFI = 0.962, NFI = 0.947, IFI = 0.967, TLI = 0.958 and lastly RMSEA = 0.062 (see Table 5).

Mmmmm

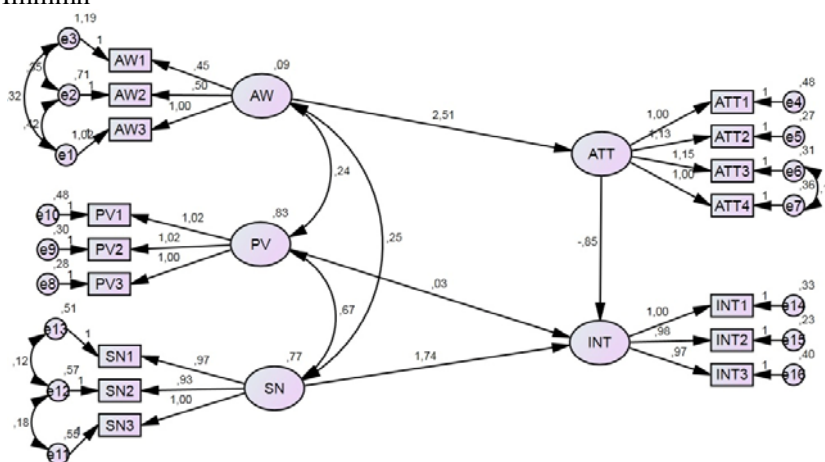


Figure 2. Final Model

Relationship among Variables

From Table 5, it now can be seen that the model’s goodness-of-fit is admissible. Hence, the analysis goes forward to shed light on the parameters estimated by SEM. Figure 2 above shows some important information with regard to the relationship among latent variables and hypotheses set in this study.

1. H1: Awareness has a positive effect on the attitude of people in Dagestan to support Islamic banking. This hypothesis is supported by the finding ($\beta = 2.51$, p -value < 0.000). This entails the need for educating the people about

Islamic banking and finance in order to improve their awareness and finally to obtain their support on the development of Islamic banking and finance in Dagestan.

2. H2: Perceived value has a positive effect on intention to support Islamic banking in Dagestan. This hypothesis is supported by the finding since its β is positive 0.032. Unfortunately, this study cannot provide enough evidence to support the hypothesis since the value for the parameter is not statistically significant.
3. H3: Subjective norms have a positive effect on intention to support Islamic banking products and services in Dagestan. This hypothesis is supported by the finding since its $\beta = 1.74$ and $p\text{-value} < 0.000$. This implies that positive opinion or views about Islamic banking and finance in Dagestan from people considered important by the person is playing a big role towards his decision to support Islamic banking and finance in Dagestan.
4. H4: Attitude has a positive effect on intention to support Islamic banking in Dagestan. This hypothesis is rejected since the findings shows reverse results ($\beta = -0.85$, $P = ***$).

Conclusion

The aim of this study is to investigate the level of awareness of potential Islamic bank customers in Dagestan towards Islamic banking products and services. Furthermore, it also tests the behavioral model of TRA for Islamic bank customers in Dagestan.

The findings show that people in Dagestan were not aware of Islamic banking products and services, with only 11.8% being aware. As for knowledge of contracts in Islamic banks, such as Murabahah, Mudharabah, Musharakah and Ijarah, only 6.1% were aware. Finally, only 10.8% of total respondents know profit and loss sharing concepts.

Three research hypotheses for modified TRA model were proven correct while one hypothesis was rejected. Awareness was proven to be positively and significantly affecting the Attitude while Perceived Values and Subjective Norms were proven to be positively and significantly affecting the Intention to support Islamic banking in Dagestan. Despite its significant estimated linear parameter, Attitude was reversely affecting the Intention and thus, its positive influence upon Intention to support Islamic banking and finance cannot be proven yet in this study.

Limitations of the Study

This study was intended as a feasibility study or preliminary analysis for the development of Islamic banking and finance in Dagestan. Despite great efforts made for the completion of this study, limitations are inevitably. Among the limitations for this study are: (i) sample selection were focused more on university stakeholders, (ii) people were not yet familiar with survey based research, and (iii) limited information obtained when it relies on one method only.

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Analysis of Challenges and Opportunities in Islamic Banking

By

Salman Ahmed Shaikh^{*}

Abstract

Islamic banking has achieved exceptional growth in the last two decades and has been able to sustain it even during the recession and afterwards. In this paper, we analyze the economic merits of Islamic banking principles that have made it so successful and widely acceptable. We provide mathematical exposition of the Islamic banking architecture and discuss its salient economic merits. Then, we discuss the potential challenges that it has to overcome. We discuss that lack of flexible financing options, incomplete product mix, scale diseconomies, contractual frictions and constraints in liquidity management are potential future challenges for this industry. We also highlight growth opportunities by noting that Islamic banks in many jurisdictions are yet to enter into infrastructure financing for development spending, energy financing, investment banking and sovereign financing. 10 of the 25 most growing economies have Muslim majority population and it is a lucrative market for transnational banks especially after the credit crisis and contagion in Europe. We also note that Islamic banks are yet to fully capitalize on their ideals and principles. By establishing their niche in microfinance and agriculture finance, they can validate their egalitarian status and mandate. We also show that most Muslim majority countries have savings deficit which is important for growth and development. Hence, Islamic banking has the potential to promote savings culture and contribute in capital formation in these economies.

Keywords: Islamic Banking, Islamic Finance, Interest Free Banking, Ethical Banking

JEL Codes G20, G21

1. Introduction

The financial crisis of 2007-2009 and ongoing sovereign debt crisis in Europe has challenged the conventional wisdom. Massive levels of debt and consumption beyond

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means and speedy financial innovation with lax regulation has put major economies in a deep crisis. Macroeconomic policies especially the monetary policy with ease in rates had been ineffective to say the least in generating substantial number of new jobs in post-crisis period. Where growth had been restored, it is jobless growth in most cases. Fiscal stimulus bailed out the undisciplined financial sector which did not use the stimulus for extending credit to the private sector as much as was required. The securitization of consumer debt magnified the losses and created unjust effects on savers and taxpayers who had nothing to do with the mess in the first place.

To reduce the crisis effects, quantitative easing was adopted time and again to rescue the economy. But, it discouraged savings, created even more fluctuation in real asset prices, and encouraged more speculation to profit from correct anticipation of inflation and financial asset prices rather than to take the pain of productive enterprise.

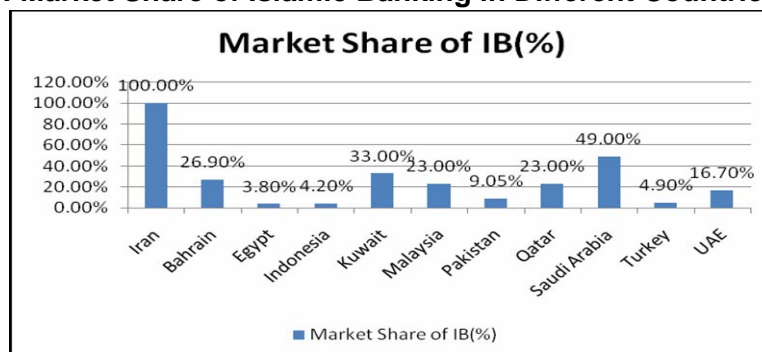
It is a revealing statistic that share of U.S. gross domestic income accruing to finance and insurance, according to the Bureau of Economic Analysis, had risen fairly steadily from 2.3% in 1947 to 7.9% in 2006 (Greenspan, 2010). These earnings are transaction costs for the productive sector. Financial institutions that were just supposed to be playing a supportive role to the productive economy got much bigger and unregulated through shadow banking practices.

In this backdrop, a new paradigm is needed which will put the focus back on productive enterprise, bring recovery with job creation, limit and regulate speculative financial instruments and improve corporate governance by influencing the incentives more deeply and proactively. In this paper, we analyze how Islamic finance principles and institutions can provide basis of new financial intermediation architecture.

During the last decade and half, the Islamic financial industry has seen tremendous growth even when the conventional financial institutions went into a deep crisis. The Islamic finance industry has demonstrated its potential with steady 15-20% growth during the last two decades. Islamic finance is a growing industry almost everywhere. The key regional hubs of Islamic finance include Middle East, South Asia, East Asia and Europe. The industry is growing at a rapid pace and now it has presence in Africa, Central Asia and North America.

Figure 1 shows the market share of Islamic banking assets in total banking assets in some selected countries. It can be seen that there are quite a few countries where this ratio exceeds 20% now.

Figure 1: Market Share of Islamic Banking in Different Countries (%)



Source: Ernst & Young Competitiveness Report 2012-13

Some economists argue that growth in Islamic finance owes to some unique features inherent in Islamic financial products. Adel (2010) explained the economic

merits of Islamic banking by pointing out that credit expansion through Islamic banking is linked to the growth of the real economy by allowing credit primarily for the purchase of real goods and services. It also requires the creditor to bear the risk of default by prohibiting the sale of debt, thereby ensuring that he evaluates the risk more carefully.

Chapra (2007) highlighting the benefits of asset backed financing stated that asset-based debt should further help by not allowing the debt to exceed the growth of the real economy. The introduction of such a discipline carries the potential of helping realize not only greater stability, but also greater efficiency and equity in the financial system.

If we look at regional and asset wise classification of assets, it appears that GCC and MENA are the leading centers of gravity for Islamic finance. While Asia and Sub-Saharan Africa with their significant non-banking population represents tremendous opportunity for growth and penetration of Islamic finance products.

Table 1: Breakdown of Islamic Finance Assets (in bln USD)

Breakdown of Islamic Finance Assets (in bln USD) -2012E				
Region	Banking Assets	Sukuk Outstanding	Islamic Funds' Assets	Takaful Contributions
Asia	171.8	160.3	22.6	2.7
GCC	434.5	66.3	28.9	7.2
MENA (Except GCC)	590.6	1.7	0.2	6.9
Sub-Saharan Africa	16.9	0.1	1.6	0.4
Others	59.8	1	10.8	0
Total	1273.6	229.4	64.1	17.2

Source: Islamic Financial Services Industry Stability Report

In this paper, we analyze the principles of Islamic finance and identify future challenges and opportunities for this industry. The paper proceeds as follows:

In section 1, we give theoretical foundations of Islamic banking. We analyze the interest based financial intermediation and its effects on business cycles and income distribution. We also give a mathematical model of Islamic banking operations. In section 3, we identify various challenges facing the industry and how Islamic banks can cope up with them. In section 4, we identify various opportunities for Islamic banks which can enable them to sustain growth and successfully manage the future challenges.

1. Theoretical Foundations of Islamic Banking

1.1 Analysis of Interest Based Financial Intermediation

Mainstream economics define physical capital stock as things that are ‘produced means of production’. In a market economy, physical capital stocks are either traded or rented. But when it comes to the price of capital, the user cost of capital is applied which was formulated by Jorgenson (1963).

$$UC = P_k (r + d)$$

UC is user cost of capital,
Pk is purchase price of capital stock,
r is real rate of interest,
d is the depreciation rate.

In the intertemporal transfer of money in the loanable funds market, interest is legally regarded as the price of capital. However, this does not answer the philosophical and deep question of Thomas Aquinas as to what is the right price of money.

The contemporary view takes interest based financial intermediation as a given and exogenous. Given the existence of interest based financial intermediation, real interest is used as price (opportunity cost) of use of physical capital stock.

If \$ 1,000 earn 10% rate of interest in bank account, then \$ 1,000 invested in machinery should yield at least 10% for justification of efficient allocation of resources. But, the legal, moral and philosophical base of 'interest based financial intermediation' still needs justification.

From the economic standpoint, there are following problems in interest based financial intermediation and its subsequent effects on goods markets and resource markets.

- i) It ignores the negative externality imposed through inflation on people. Interest paid is added in cost and through transfer pricing, it is paid by people eventually.
- ii) It discourages investment in socially optimal profitable projects, but which are not favored because of relative costing comparison from prevalent real interest rate.
- iii) It compels firms to engage in aggressive advertising and to promote consumerism to meet interest cost. Selling small number of units will not allow benefit from leveraging and meeting interest cost. Hence, they have no choice than to promote as much sales as possible.
- iv) If sales do not increase, it may lead to business cycle fluctuations with unplanned increase in inventories.
- v) With increased pressure to service debt, the environmental degradation and human resource exploitation may become common.
- vi) It results in skewed distribution of income and wealth with guaranteed return to capitalists and uncertain return to real sector entrepreneurs who are burdened to provide compound interest to capitalists.
- vii) It supports only the wealthy entrepreneurs who are able to afford interest payments right from the start from their entrepreneurial pursuits and who already own capital that can be used as collateral. This will affect the kinds of entrepreneurial investments they make and hence allocation of resources.
- viii) With barriers to entry due to restricted availability of funds for investment in real sector, the real sector could result in increased market concentration in large scale businesses.

- ix) It may result in other negative externalities, e.g. increased income inequality, poverty and below full employment use of real scarce resources resulting by artificially making capital scarce. This is discussed by Keynes (1936) in his seminal book.
- x) Increased printing of fiat money by borrowing on interest will jeopardize the welfare of future generations. With no afterlife accountability, no policy maker or institution can incorporate infinite horizon and accountability to future generations. This creates the problem of moral hazard even in policy making.

1.2 Mathematical Exposition of Islamic Banking Model

The basic structure of Islamic banking can be explained mathematically as follows. First, an Islamic bank creates an asset pool (AP) which consists of bank's equity (E) and deposits (D). Deposits include two further classifications, i.e. remunerative deposits (RD) and non-remunerative deposits (NRD). RDs are mobilized using partnership mode 'Mudarabah' with bank's shareholders and depositors as partners. Profit sharing ratio is agreed at the start of this partnership. NRDs are mobilized using Qard (non-compensatory loan).

Mathematically, we have:

$$AP = E + RD + NRD \dots (i)$$

This pool of assets is used to provide asset backed financing (ABF). In an Islamic banking model:

$$AP = ABF \dots (ii)$$

ABF consists of various financing assets based on different underlying financing contracts, i.e. Ijarah, Diminishing Musharakah, Murabaha, Istisna etc. Islamic bank does not lend money. It provides asset backed financing in which the asset is owned by the bank. These financing modes can be categorized as lease based financing (LBF) or credit sale based financing (CSBF).

Hence, (ii) can also be written as:

$$AP = ABF = LBF + CSBF \dots (iii)$$

Income stream is generated either through profit on credit sale or rent for use of asset.

Hence, income (I) comes in the form of rent (R) or profit on sale (P).

$$I = R + P \dots (iv)$$

If R is some α proportion of LBF and P is some β proportion of CSBF, then (iv) can also be written as:

$$I = \alpha LBF + \beta CSBF \dots (v)$$

Since Islamic banks use the same interbank benchmark rate (KIBOR) for pricing assets in credit sale for profit determination and computing rentals necessary to amortize the cost of asset during lease period, α and β can assumed to be same except for term premia and counterparty risk premia in customized financing assets.

$$I = \alpha (LBF + CSBF) \dots (vi)$$

Where $\alpha = \beta = 1$

Replacing AP for (LBF + CSBF) in (vi), we can see that income is distributed among the contributors in pool, including bank's shareholders and depositors. To achieve spreads for financial intermediation function, profit sharing is done between bank and depositors as per the pre-agreed profit sharing ratio.

$$I = PSR_{RD} I_{RD} + PSR_B I_B \dots (vi)$$

Where, $I = I_{RD} + I_B$, I_{RD} represents income share of depositors and I_B represents income share of the bank.

1.3 Economic Merits of Islamic Modes of Financing

Often, in commercial financing, huge financing is required for different projects that take time to be completed; for instance, construction of plant, highways, dams etc. The firm providing services to undertake and execute such projects may have expertise, but lack funds to undertake such projects. Financial intermediation can bring necessary financing, liquidity and risk mitigation that enables the unknown counterparties to undertake such projects.

Giving funds for raw material purchase directly by the client will pose certain challenges of agency conflict and moral hazard. In such a case, the financial intermediary can aid with better credibility, standing, and economies of scale in authenticating the counterparties and the ability to effectively and efficiently enforce contracts.

There is often need of making payments for resource supplies before production is complete. To keep the production cycle going, Istisna can be used to ensure resource supplies availability and production.

Often, it is desirable to keep low levels of inventory and improve turnover ratios. Keeping huge inventory all the time will require inventory maintenance cost and may result in underemployment of assets at times. It will dampen liquidity and turnover ratios and hence affect stock price of companies. Using Murabaha and Istisna right when financing is needed for new projects will reduce operational and financial inefficiencies.

Often, construction and engineering companies enter into big-volume, but customized contracts with institutional clients. Keeping inventory beforehand is neither financially possible nor operationally appropriate. Hence, financing the project requirements after project deal is signed will enable firms to work with less cash tied up.

From the risk and profitability perspective, Islamic modes of financing keep the Islamic financial system liquid and less prone to risk due to asset backing. Islamic financial intermediary enables credit availability to ensure that productive transactions are executed and also, it reduces the transaction and monitoring costs which result in more productive transactions happening in the economy.

Often, the investors with bank (the deposit holders) are risk averse and want consistent returns. But, small savers do not have enough funds to finance big volume projects directly. But, using investors' pool of funds to provide financing, the investors are able to share in benefit of such economic activities.

Financing big projects without financial intermediation will be a very difficult task. Equity financing is also costly in some ways because of high floatation cost, risk of under subscription and inflexibility in modifying capital structure when needed. But, using investors' pool of funds to provide financing, the banks can effectively finance such big projects that have positive benefits to direct parties involved as well as positive externalities enjoyed by masses in the society.

2. Challenges for Islamic Banking in Future

2.1 Predominant Use of Debt Based Modes of Financing

It is an empirical fact that Islamic banks prefer to offer debt based financing products (Ismail, 2011). Some scholars like Ismail (2011) argued that recent growth experience and product innovation directed towards coming up with more sophisticated products using debt based structure exhibit that growth has taken more precedence over Shari'ah compliance in letter and spirit. Sharing the same viewpoint, Chaudhry (2006) also raised the concern that a narrow juristic interpretation of the Shari'ah is followed, leaving aside the Tawhidi core.

Mufti Muhammad Taqi Usmani in his article 'New Steps in Islamic Finance' writes:

"...One must not forget that these instruments are not modes of financing in their origin. They are in fact some forms of trade that have been modified to serve the purpose of financing at initial stage as secondary and transitory measures. Since they are modified versions of certain forms of trade, they are subject to strict conditions and cannot be used as alternatives for interest-based transactions in all respects. And since they are secondary and transitory measures, they cannot be taken as final goal of Islamic Finance on which Islamic Financial Institutions should sit content for all times to come. It is a matter of concern for a student of Islamic finance, like me, that both these points are increasingly neglected by the players in the field, and especially by the new-comers in the industry."

Furthermore, in his book, 'Introduction to Islamic Finance', the respected scholar, Mufti Muhammad Taqi Usmani writes:

"It should never be overlooked that, originally, Murabaha is not a mode of financing. It is only a device to escape from "interest" and not an ideal instrument for carrying out the real economic objectives of Islam. Therefore, this instrument should be used as a transitory step taken in the process of the Islamization of the economy, and its use should be restricted only to those cases where Mudarabah or Musharakah are not practicable." (p. 72)

But, still the share of Mudarabah and Musharakah financing in asset side operations is almost negligible.

2.2 Incomplete Product Mix

Islamic banks do not have complete product alternatives for all kinds of conventional finance solutions. While it is indeed appreciable that not all conventional practices are followed by Islamic banks, but such lacking in solutions and alternatives cannot completely be attributed to this factor. Distress financing, educational financing, health financing and microfinance are areas where if Islamic product alternatives can be

developed and adequately marketed, will increase the size and scope of Islamic banking. Furthermore, it will validate the position of Islamic banks as having solutions for all classes and stratum in economy and not just for the big corporations looking to expand with lumpy assets acquisition.

2.3 Constrained Liquidity Management

In Islamic banking, deposit mobilization has much less contractual frictions than creating a Shari'ah compliant financing asset. In providing finance, it is important that finance is provided for genuine purchase of an asset whose ownership, possession and risk has to be borne by the bank so as to be able to earn any sale premium or rents for the use of asset.

When people become aware of Islamic banking and accept its status as Islamic, most people would start using Islamic banking services first by opening bank accounts than by obtaining finance. It is easier for a customer to switch from conventional bank deposit to Islamic bank deposit than to convert a conventional debt based liability to Islamic financing product. Islamic banks have remained solvent and liquid and hence during and after consumer-financing bust, people have placed more faith in Islamic banks for parking their surplus funds.

While ease in deposit mobilization is a salient plus, it is also a challenge when financing operations have limited product alternatives, contractual frictions and non-Compliance risk. To manage surplus liquidity, it is important to have investable options for short term other than providing credit.

2.4 Lack of Flexible Financing Options

In an empirical study, Hasan (2003) explained that adequate capital ratios play a weak empirical role in explaining the performance of Islamic banks. Islamic Banks' loan portfolio is heavily biased towards short-term trade financing. Their loans have low risk and only contribute modestly to the banks' profits.

In Islamic banking, financing is always provided for the purchase of an asset whose ownership belongs to the bank before second leg sale is executed. Once the client and the bank agree to the contract's financials, i.e. sale price, it cannot be changed. In this case, problem of moral hazard and adverse selection become even more significant. If there is increased use of flexible financing options where payoffs to the bank are not fixed to the historical prices of assets, it will be more equitable to both the bank's shareholders and depositors.

2.5 Lack of Economies of Scope

Using data from two Sudanese banks, Bashir (1999) argued that the relationships between size and profitability measures are statistically significant, indicating that Islamic banks become more profitable as they grow in size. The significant negative effect of the risk variable implies that, as the Islamic banks grow in size, the operating risk decreases. This result strongly supports the intermediation theory, which confers a diversification advantage as size increases.

Using Data Envelopment Analysis, Yodistra (2003) concluded that Islamic banks suffered slight inefficiencies during the global crisis of 1998-9. He indicated that there are diseconomies of scale for small-to medium Islamic banks which suggests that

mergers should be encouraged. Regarding regional differences, he concluded that Islamic banks within the Middle East region are less efficient than their counterparts outside the region. Additionally, market power, which is common in the Middle East, does not significantly have an impact on efficiency. The reason is that Islamic banks from outside the Middle East region are relatively new and very much supported by their regulators. Furthermore, publicly listed Islamic banks are less efficient than their non-listed counterparts.

Hasan (2003) in an empirical study found that high capital and loan-to-asset ratios lead to higher profitability. In his study, he found that the Islamic banks' profitability measures respond positively to the increase in capital and negatively to loan ratios. The results revealed that larger equity to total asset ratio leads to more profit margins.

Haron (2004) in an empirical study discovered that there is positive association between deposits growth and profitability in Islamic banks. He also found that there was no significant variation in earnings between Islamic banks in competitive and monopolistic markets. However, there was strong evidence which indicates that firm's and shareholder's welfare were maximized in the monopolistic market.

Using Stochastic Frontier Approach (SFA), Mokhtar (2006) inferred that cost and profit efficiencies have improved in Islamic banks and they are relatively better in controlling costs than generating profits. His results also suggest that Islamic banks in Europe are relatively more cost and profit efficient than the other group of banks. Banks in the Middle East region are significantly less efficient than Islamic banks in Africa but more efficient than banks in the Far East and Central Asia.

In another study, Mokhtar (2006) showed that the overall efficiency level in Islamic banks has increased, but it is still lesser than the conventional banks. He inferred that among the Islamic banking institutions, the full-fledged Islamic banks are more efficient than Islamic banking windows.

Kablan (2011) in an empirical study on bank efficiency found that countries with Islamic banking system do not necessarily display efficiency scores superior to the average. He inferred that the subprime crisis seems to have impacted those banks indirectly. He concluded that Islamic banks do not benefit from scale economy.

In Islamic banking, each financing contract requires thorough documentation and ascertainment of genuine purchase of an asset. However, if Islamic banks can identify stable growth companies with widely used tangible products for consumers and industries, then they can provide credit facility and generate economies of scale by standardizing some compliance procedures and delegating others to the partner vendors.

3. Future Opportunities for Growth

3.1 Public Infrastructure Financing

Brunnschweiler (2009) in an empirical study of 119 non-OECD countries using panel data, concluded that lack of financing is one of the major obstacles for minimal use of renewable energy in developing countries. Financial sectors of these countries are often underdeveloped and are unable to efficiently channel loans to produce renewable energy.

In financing structures, there are three possibilities, i) standalone bank financing, ii) syndicate financing, iii) public issuance of securities.

3.1.1 Standalone Financing

Currently, the size of Islamic banks is not as big as conventional banks in terms of assets and capital base. Due to prudential regulations, they cannot usually finance big projects on standalone basis. But, if a project's capital requirement is divisible in separate chunks of capital goods, then, standalone financing can be obtained. It is also going to be most useful when only partial financing is required for some energy infrastructure.

3.2.2 Syndicate Financing

In syndicate financing, group of banks join to provide financing for a big project. It has many advantages over standalone financing. First, it increases the number of potential projects that can be financed through Islamic banking. Second, it diversifies the risk of the banks. Third, it enables more effective pooling of resources. Fourth, it still is cheap and customizable since small numbers of financiers are involved and this method also avoids the floatation cost and underwriting uncertainties.

3.3.3 Public Issuance of Securities

Sovereign and corporate Sukuk issuance can also help in obtaining long term finance for big projects. Issuance of these securities can also result in deepening of financial markets with more investment avenues. This will promote the savings culture and make financial markets more competitive and responsive to the small savers.

4. Sovereign Financing for Development Spending

In table 2, we can see that in all sectors, Islamic banks have grown faster than conventional banks in their financing operations, except in financing to the government.

Table 2: Financing Growth in Sectoral Financing (2008-2011)

Financing Growth 2008 - 2011		
Category	Islamic	Conventional
Corporate	8.30	4.20
Government	10.00	12.90
Personal	30.40	8.50
Real Estate	12.80	10.20
Services	23.50	12.80

Source: Ernst & Young Competitiveness Report 2012-13

Part of the reason is that Islamic banks cannot provide finance for debt swap, debt repayment and deficit finance where no asset is involved. However, in most developing countries, the governments pay more than 50% of their tax revenues in servicing debt and spend very little in development. Often, these governments trim development spending to cover other non-discretionary current expenditures. Islamic banks can finance the government for the purchase of infrastructure that can be used in development projects.

In Pakistan, Government of Pakistan had already issued several Ijarah Sukuk and its public sector units like National Highway Authority and WAPDA have also issued

Sukuk in past. As much as 2% of sovereign financing is now by way of Sukuk in Pakistan. These Sukuk can deepen Islamic money market and provide more investment alternatives to Islamic banks' treasuries.

4.1 Microfinance

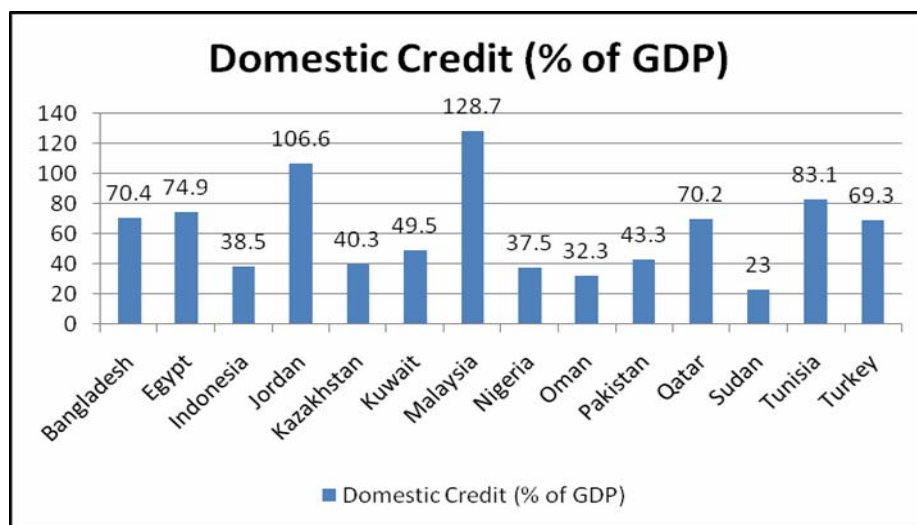
Currently, less than 1% of Islamic financing assets are involved in micro financing. Financing costs are also high in Islamic banking as depicted by the high spreads ratio. Contribution to SME financing and rural presence is also low in Islamic banking as compared to the conventional banking. In a survey conducted by World Bank in Africa, it was found that out of 5,071 respondents, only 52% people have ever heard about Islamic banking (Source: Global FINDEX Database).

If Islamic banks enter into micro financing, they can benefit from high recovery rates and spreads in this sector. Plus, in most developing countries, significant portion of population lives in rural areas and engaged in agriculture. Often, government provides support prices for the farmers and hence, there is little price and market risk.

4.2 Expansion in Untapped Markets

It can be seen in Figure 2 that there are a lot of Muslim majority countries where domestic credit to GDP ratio is very low. There is huge portion of non-banking population that will be new to both conventional and Islamic banking. Even besides the religious and ethical appeal of interest free banking, effective marketing can enable Islamic banks to penetrate and increase their presence and size in these countries.

Figure 2: Domestic Credit (% of GDP)



Source: Statistical Monograph 2013, IDB

In table 3, we see that there a lot of populous Muslim majority countries where savings ratio is very low. Part of the reason why savings culture is weak is that people do not want to invest in interest based investment options. The evidence for this argument is the sustained increase in deposits growth in Islamic banking. Hence, if Islamic banks increase their outreach, these economies will also benefit to reduce their savings-investment gap.

Table 3: Muslim Majority Countries with Saving Investment Gap

Country	Investment to GDP (%)	Savings to GDP (%)	Gap (%)
Afghanistan	25.4	-19.8	-45.2
Albania	25.3	3.1	-22.2
Jordan	24.5	2.8	-21.7
Kyrgyz Republic	24.4	-2.9	-27.3
Lebanon	32	6.4	-25.6
Morocco	30.6	21.5	-9.1
Mozambique	24.3	7.8	-16.5
Pakistan	11.5	8	-3.5
Senegal	30.6	10.9	-19.7
Sierra Leone	14.9	4.6	-10.3
Tajikistan	18.7	-2.8	-21.5
Tunisia	24	24	0
Turkey	21.8	14.9	-6.9
Uganda	24.4	13.8	-10.6

Source: Statistical Monograph 2013, IDB

In Table 4, we show that there are 10 Muslim majority countries in the list of top 25 economies of the world. It presents tremendous opportunity for large transnational banks to increase their presence in these economies and offer Islamic banking products and services. This will expedite the process of financial development and make financial markets more responsive and competitive.

Table 4: Muslim Majority Countries in Top 25 Growing Economies

Country	GDP Growth (CAGR)	Rank in Most Growing Countries
Qatar	12.8	1
Kazakhstan	8.5	3
India	7.4	4
Nigeria	6.4	6
Indonesia	5.2	9
Malaysia	5	10
UAE	4.9	11
Egypt	4.9	12
Turkey	4.2	16
Saudi Arabia	3.4	23

Source: Ernst & Young Competitiveness Report 2012-13

4.3 Increasing Investment Banking Operations

Islamic commercial banking has experienced steady growth in last three decades, but Islamic financial institutions have to establish and increase their investment banking operations as well to steer more IPOs and Sukuk issuance. Investment banking operations will have positive complimentary effects on commercial banking operations. Increased IPOs and number of corporations will increase the size of commercial banking target market as well.

Conclusion

In this paper, we analyzed the economic merits of Islamic banking principles that have made it so successful in the last two decades. We presented mathematical exposition of the Islamic banking architecture and discussed its salient economic merits. We discussed the challenges and opportunities for Islamic banking in future. Our analysis identifies potential future challenges which include lack of flexible financing options, incomplete product mix, scale diseconomies, contractual frictions and constraints in liquidity management. We also highlighted growth opportunities by noting that Islamic banks in many jurisdictions are yet to enter into infrastructure financing for development spending, energy financing, investment banking and sovereign financing.

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Islamic Home Financing and Ownership Transfer to the Customer: Models Compared

By

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Abstract

In my latest article on Islamic home financing models in the ISRA Journal June 2013, I had shown that the Zubair Diminishing Balance Model (ZDBM) does not involve compounding of return and the transfer of ownership to the customer perfectly matches the payments' rate; the two norms Islamic models must meet. It is satisfying to note that Nabil in the same issue of the journal takes up these issues in a comprehensive and tightly argued conceptual paper and convincingly vindicates my position on the compounding issue. However, he argues that the transfer of ownership in the ZDBM also does not meet the stated ideal even as it is closer to the norm than other constructs. The objective of this brief note is to clarify my position on this latter issue albeit I shall put on record a more clinging demonstration of interest compounding in the conventional formula as many Islamic banks do use it in various contracts, especially in home financing.

Key words: Shari'ah norms; home financing, ZDBM; MMP; Segmental murabahah

1. Introduction

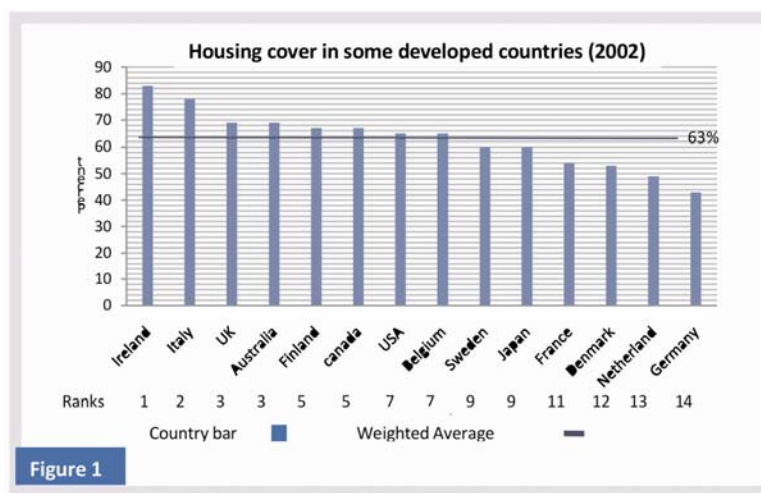
The importance of a residential accommodation can hardly be over emphasized in civilized living. That is why Islam counts housing from its very inception among the basic human needs which must be met for all individuals living in a Muslim country. It is also true that housing shortage remains an agonizing reality not only in Muslim countries

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but throughout the world. It is surprising that even the most developed of modern economies do not have full provision as Figure 1 depicts though the data closer to date was not available. Interesting, the infamous 2008 sub-prime debacle in the US was the result of heightened speculation, not of action to provide a roof on the heads of the homeless.

In view of the huge backlog and increasing shortage of housing in developing countries, the issue has gained urgency across the globe. Recently the Islamic Development Bank (IDB) has initiated a massive program to ameliorate the situation in Muslim countries. One result of the added attention to the housing problem in Muslim communities has been the search of a *Shariah* compliant model for home financing. The writings on the subject in the Islamic literature have been on the rise. The focal point in these discussions has been the consequences of the widespread use of a conventional formula for determining the periodic installment payments the client has to make to the bank to acquire complete ownership of the house.



Source of data for construction: The Economist on line, 30 March 2002

In the on-going discussion, the paper of Nabil (2013) has convincingly established that Islamic home financing models in current use involve compounding of return on capital—interest, rent or mark-up¹—if the Excel formula is used for the determination of a uniform periodic installment payment.² However, the paper argued that in the ZDBM too the ownership to the customer does not pass pro rata albeit he finds the results much closer to that ideal compared with other models (PP. 70-74). For this demonstration Nabil uses what he calls the dynamics of outstanding balances in Islamic home financing

¹ Nabil looks vacillating on the point (2013; 40, 77-78). A critic presumably taking cue from Nabil wrote to me that the Excel formula does involve compounding but its Islamic condemnation is confined to interest and as Islamic banks take rent or profit, not interest no objection can be raised to the compounding of returns in their case. He provided no juristic documentation on the point. To me, the fixity of rent/profit rates in the MMP and the admission of their compounding make the model identical to the conventional in form and substance. The analogy of interest compounding is solid I believe to dismiss the stated speculation on compounding in Islamic financing.

² For a quick demonstration see Appendix 1,

models. The objective of this small note is to correct this misconception about the ZDBM.

To open the discussion, let me reiterate that what I call the pro rata transfer of ownership to the customer is the epitome of justice in Islam. Justice means equality before the law: the Scripture does not permit withholding from the people what rightfully becomes due to them. A tradition says: pay the wages of the worker before his sweat dries up³. The Qur'an unequivocally instructs the believers not to usurp each other's property using unjust means (2:188 and 4:29). Justice is the crux of the matter for calling something *Islamic*. Another verse (16:90) says:

Behold: God enjoins justice, and the doing of good, and generosity towards one's fellow men, and He forbids all that is shameful and all that runs counter to reason, as well as all envy, and He exhorts you repeatedly so that you might bear all this in mind.

The transfer of property at a rate slower than the payment rate must possibly be avoided more so as the ability to predict the course of events in an economy is extremely limited (Ormerod 2010). The track record of forecasting is very poor. We shall demonstrate that the ZDBM meets that norm to perfection. Nabil's claim that it does not is based on a misinterpretation of what he calls the dynamics of outstanding balances. The following section provides a clarification on the point.

2. The Dynamic Balance

The argument in Nabil centers around the changing balance of the payment that remains outstanding as installments are progressively paid until this balance is reduced to zero. However, note that outstanding balances are the *consequence* not the *cause* of how the installment is determined. In focusing at that end Nabil is perhaps putting the cart before the horse³. It is fixity of installment that is the basic and common point in all

³ It is argued that the reason for the prohibition of *riba* imputed to Ibn Rushd is its potential to inflict extreme injustice. El-Gamal (2014) perceives its presence even in pure *mudarabah* contracts. He writes that there is nothing in the Islamic rules of *mudaraba* that prevents the capitalist from offering the worker a share of profits, which could turn out to be grossly unfair relative to his market wage. If the worker has no access to other work, this ostensibly *Islamic* partnership model contains the possibility of allowing severe exploitation: the worker may be forced to earn much less than his market wage with unwanted risk to boot. That is the very same extreme injustice (*ghubnfahish*) for which *riba* is but one vehicle. El-Gamal claims that many classical jurists had classified *mudaraba* as *ijara bi-l-gharar*; hire with (forbidden if excessive) uncertain wage. It may also include an element of *riba* in the sense that the profit share is not commensurate with the work done, fairness being determined by the market wage, as many classical jurists also have determined. The message is to call a transaction "Islamic," it must be fair in some clear sense. He concludes that there is no amount of juristic (*fiqhi*) analysis of contract forms that will help you determine whether or not there is injustice in the exchange. If one cannot refute him, the conclusion is a serious challenge to those who see the solution of all monetary ailments that afflict the world today in universal *Risk Sharing scheme* and interestingly, insist on keeping it distinct from profit (loss) sharing (Askari et al {2012}).

³ Starting from the consequence end has led Nabil (2013; 50) to conclude that the ZDBM model is not cheaper for the customer than the MMP in identical cases if time value of money is taken into consideration. But should not the aggregate payment under the ZDBM

deferred payment contracts using Excel formula, housing included. The essential point here is how to define the outstanding balance? Should the definition of deductible payment to find this balance with reference to ownership transfer be the sum of (i) the amount of capital returned plus (ii) the return on capital after each installment is paid or it should include only the first of these two elements? The basic difference between Nabil and the present author is on this point. To arrive at his dynamic (outstanding) balance, Nabil includes both as deductibles⁴. On this criterion, he finds the BBA model of home financing alone meeting the ideal; home ownership transfer to the client pro rata as his Figure 1, on page 72 shows.

The reason is that in the BBA the total amount payable to the bank is settled once for all. The periodic installment may be calculated for uniformity and comparison by inserting the principal (P_0) the agreed rate of return (r) and number of time units (n) into the Excel formula (See Nabil 2013, P. 42 & Table 1). The sum of installments that is the principal amount plus the full period return on it became a loan via a *murabahah* (mark-up) based contract. In BBA, it was this conversion of return on capital into debt that led banks into trouble when in a case of breach or early offer of settlement the amount they claimed as unpaid was challenged and held as unjust in law courts (Zulkifli vs Affin Bank, December 2005). Later on the grant of *ibra* (discount) was introduced into the picture to overcome the difficulty and provide relief to the customers in such cases.⁵ The grant of *ibra* is discretionary though, the banks commonly use it.

The case of the BBA apart, it is *prima facie* illogical to merge the return of capital with the return on capital to discuss the issue of ownership transference to the customer. Return on capital is not a variable that exists independent of the return of capital. The bank focus is the latter alone; as long as capital remains unpaid interest accrues on the balance remaining unpaid. If the loan is cleared before time the interest payment stops simultaneously.

Thus, the relevant deduction for calculating the outstanding balance each time is only the return of capital. In a case of breach of contract, the bank will not accept from the sale proceeds of the property less than the part of capital that remains unpaid in the MMP model as in the conventional, assuming for simplicity that the market price of the house remains unchanged. On this view of what Nabil calls the *dynamic balance*, only the ZDBM meets the pro rata transference ideal; the MMP model does not. We have shown it earlier but we reproduce it here for completion of this brief note using the same illustration that we used in earlier writings and which our critics also found convenient to use for comparison.

be at least smaller by the amount compounding adds, Nabil admits, to that payment in the MMP? Note that allowing a mark-up in deferred payment contracts is recognition of the time value of money. Once allowed it cannot be repeated as does compounding in the MMP (Hasan 2013; 14, 21).

⁴ “(T)he analysis is based on the notion that each element of the periodic instalments can be accounted for in the balance” (Nabil 2013; 46). This assumption is untenable; it vitiates his entire argumentation and hybrid models

⁶ *Ibra'* means to absolve a debtor from his debt obligation what has been established as his liability. Technically, *ibra'* is “an act of absolving one’s financial rights established in another person’s liability which leads to discharging the other from liability to fulfil the obligation”. It is a unilateral waiver of right by a party to the contract which is granted out of his benevolence (*ihsan*) at his discretion. (AbdulKhir:2013; 3).

3. Ownership Transfer – MMP versus ZDBM

In bare bones the illustration that Nabil also uses is as follows. The value of the house is \$100,000 of which the customer contributes \$20,000 and the bank provides the remaining \$80,000 for 10 years payable in 20 uniform semi-annual installments. In the MMP the semi-annual installment is as usual calculated using the Excel formula at \$5886.54. The amount includes both the return of capital and the return on capital components. It is this notion of installment payment that lies at the heart of Nabil's analysis. However, the ZDBM sees the payments differently. It talks of the uniformity in the return of capital only i.e. \$4000 semi-annually.⁶ The *murabahah* mark-up at 8% per annum replaces rental and is *segmental* i.e. applied to the diminishing balance at each time point. Thus, the total payment – return of capital plus return on capital – per period does not remain uniform as in the ZDBM. Table 1 compares the two positions.

Table 1: Ownership Transfer: MMP versus ZDBM

Semi annual periods	MMP				ZDBM			
	Return on capital	Return of capital	Outstanding Balance (80,000 – B)	Total payment (A + B)	Return on capital (G*.04)	Return of capital	Outstanding Balance (80,000 – n*F)	Total payment (E+F)
n	A	B	C	D	E	F	G	H
1	3200	2687	77313	5887	3200	4000	80000	7200
2	3093	2794	74520	5887	3040	4000	76000	7040
3	2981	2906	71614	5887	2880	4000	72000	6880
4	2865	3022	68593	5887	2720	4000	68000	6720
5	2744	3143	65450	5887	2560	4000	64000	6560
6	2618	3269	62182	5887	2400	4000	60000	6400
7	2487	3400	58782	5887	2240	4000	56000	6240
8	2351	3536	55247	5887	2080	4000	52000	6080
9	2210	3677	51571	5887	1920	4000	48000	5920
10	2063	3824	47748	5887	1760	4000	44000	5760
11	1910	3977	43771	5887	1600	4000	40000	5600
12	1751	4136	39636	5887	1440	4000	36000	5440
13	1585	4302	35335	5887	1280	4000	32000	5280
14	1413	4474	30862	5887	1120	4000	28000	5120
15	1234	4653	26209	5887	960	4000	24000	4960
16	1048	4839	21370	5887	800	4000	20000	4800
17	855	5032	16338	5887	640	4000	16000	4640
18	654	5233	11105	5887	480	4000	12000	4480
19	444	5443	5662	5887	320	4000	8000	4320
20	227	5660		5887	160	4000	4000	4160

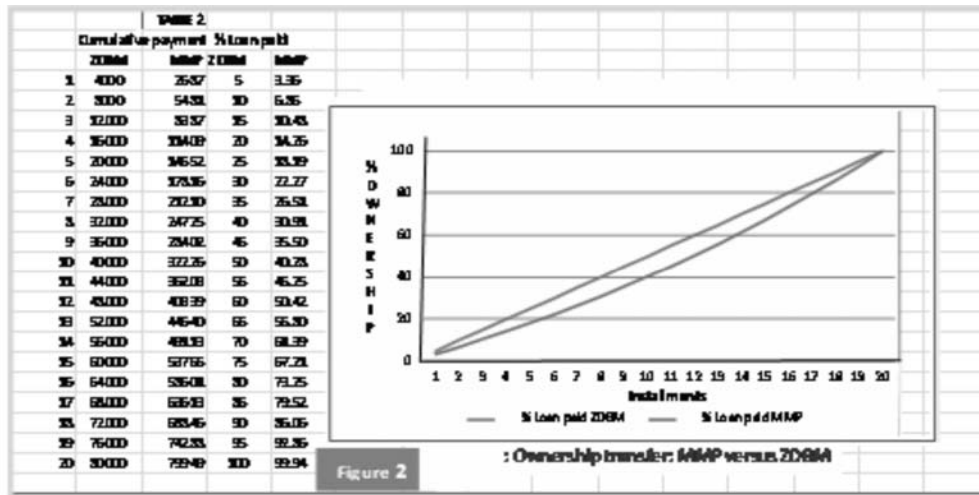
Source: Author's own construction

Table 2 has been derived from Table 1 and Figure 1 is its graphic depiction. The straight line in the Figure shows the pro rata transfer of house ownership to the customer. In other words, at each point of the line we have:

$$\frac{\text{Cumulative Amortization ratuo}}{\text{ownership transfer ratio}} = 1$$

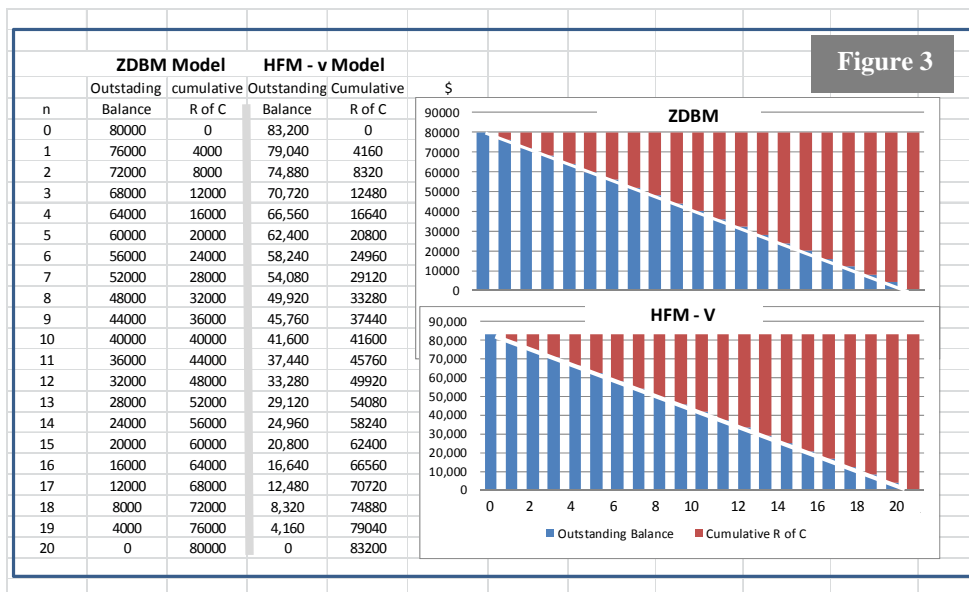
⁶ I must add in all humility that I did not make the needed distinction myself in earlier writings and used total periodic payment – return of capital + return on capital – as the basis of my demonstrations relating to the transfer of ownership to the customer.. I realized the lapse after reading Nabil, especially after seeing the Figure on page 72 of his paper. I regret if this has in any way misled him.

This is what happens under the ZDBM. In contrast, under the MMP cumulative amortization ratio remains less than pro rata transfer ratio(=1) as shown by the gap between the curve and the straight line until the last (20th) payment has been made. This is a serious matter from the Islamic viewpoint and must keep the contract inequitable and therefore void all along the line.



Source: Author's own construction

If the above argument is acceptable, the conceptual framework of Nabil presenting several hybrid models would possibly need a relook as the total payment – return of capital + return on capital – is the basis of their construction. To illustrate, we compare in Figure the HFM-v model of Nabil with the ZDBM on the basis of data he provides for his model in Table 4, P. 64 of his paper.



It is easy to see that the two models are identical except that in the HFM-v Nabil adds the *total* mark-up \$3200 to bank finance \$80,000 and divides the sum \$83200 by 20

to arrive at the uniform semi-annual installment = \$4160. In its features the HFM-v is identical with the BBA model of home financing shares its blemishes in equal measure.

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Appendix 1

The conventional loan amortization process is not free of compounding

The formula for determining the equal periodic installment payments (A) to clear the loan on time is as follows

$$A = P_o \frac{r_o (1 + r_o)^n}{(1 + r_o)^n - 1} \quad (1)$$

In our illustration we have $P_o = \$80,000$ semi – annual rate of interest 4%, and loan period $n = 20$ semi-annuals units.

Substituting the values in the above formula we get :

$$A = 80,000 \frac{.04 (1 + .04)^{20}}{(1 + .04)^{20} - 1} = \$ 5886.54$$

$$P_n = 5886.54 * 20 = \$117730.8 \quad (2)$$

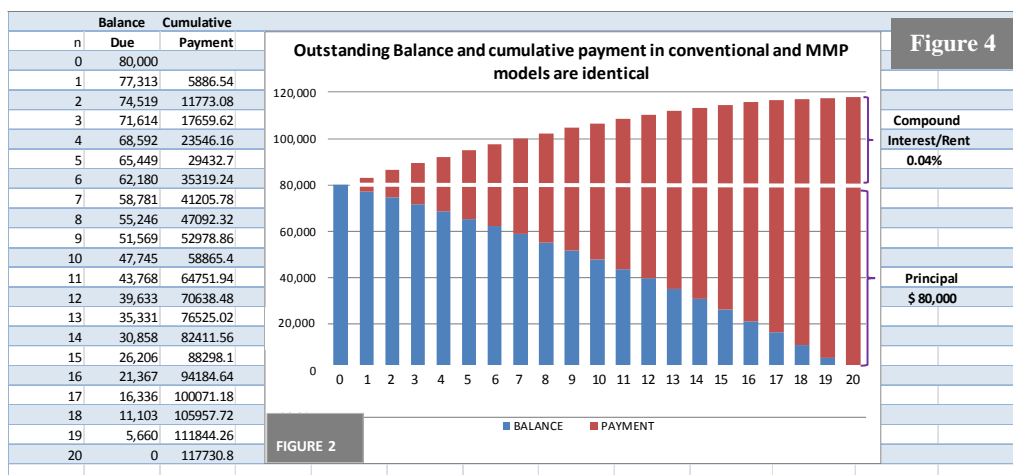


Figure 4

Compound
Interest/Rent
0.04%

Principal
\$ 80,000

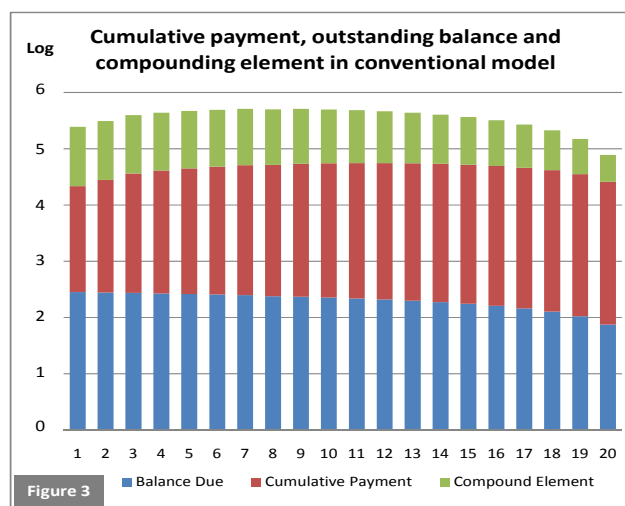
I could isolate the compounding element in my earlier paper. It enters into the picture as the formula capitalizes the preceding period return on capital to arrive at the current period outstanding balance (Hasan 2013; 14-15). Thus, the compounding element can be obtained through multiplying the periodic return on capital each time by the periodic rate of return - interest rent or mark-up as in table 3 but the amount is too small for showing visibly in Figure 4 above. However, we know that the conversion of natural values into logarithm in a series gives greater weight to smaller values and less to larger ones. This enables one to make the compounding element vivid as in Figure 5.

Table 3: Compounding element in Instalment payments

Instalment #	1	2	3	----	19	20	Total
R on C	3200	3093	2981	----	444	226	37731
(R on C)*.04	128	124	119	----	18	9	1510

Values in logarithms

Balance Due	Cumulative Payment	Compound Element
4.903	3.77	2.107
4.888	4.007	2.092
4.872	4.247	2.076
4.855	4.372	2.059
4.836	4.469	2.04
4.816	4.548	2.02
4.801	4.615	1.998
4.754	4.673	1.973
4.742	4.724	1.946
4.712	4.77	1.917
4.679	4.811	1.883
4.641	4.849	1.845
4.598	4.884	1.802
4.548	4.916	1.752
4.489	4.946	1.693
4.418	4.974	1.622
4.33	5	1.534
4.213	5.025	1.417
4.045	5.049	1.249
3.751	5.071	0.957



Based on the present and earlier demonstrations, I maintain my position that not only the formula in equation 1 but any logical method of determining a uniform periodic instalment payment combining return of capital with return on capital will invite the same sort of criticism as spelled out in my writings: it must involve compounding of return and an ownership transfer to the customer at a less than amortization rate until the last instalment is paid.

There is another and more revealing way to identify compounding in the exercise. The bank receives a fixed instalment of \$ 5887 semi-annually. How the management looks at it internally is a matter of discretion. It is interesting to see that we may break the instalment into *average* semi annual receipt of return of capital \$4000, return on capital \$1887 their sum being 5887semi-annual payment. Table 4 presents the result. It is interesting to see that the periodic return of capital remains the same (\$4000) as in the ZDBM but the average return on capital is more each time average return is capitalised to calculate the outstanding balance as shown elsewhere. (Hasan 2013, 14). Here the last row separates the element

Table-5: Break-up of instalment into uniform Return of capital and Return on capital

Instalment Number	n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
Return of capital	A	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	800
Return of Capital	B	1887	1887	5887	1887	1667	1887	1887	1887	1887	1887	1887	1887	1887	1887	1667	1887	1887	1887	1887	1887	3773
Instalment	C=A+B	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	5887	11773
B#0.04	D	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	75.46	1509

Big Data Technology in Shari'ah Compliance Risk Management (SCRM): A View of Information Technology in Islamic Finance Risk Management

By

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Abstract

The global Islamic finance sector is booming and is likely to sustain a stable growth. With many Islamic Finance products introduced over the years, the demand in studying risk pertaining to Islamic finance product is becoming a major concern. The main reason to manage risk is to attain the organizations' objectives on financial stability. In Islamic finance the risk is much further than just financial itself because we have to look into activities related to the Islamic Finance existence. These activities related to Islamic Finance must abide by the Shari'ah law. Thus, the Shari'ah non-compliance is a unique risk for Islamic finance which needs a special risk management apart from typical risk management of conventional finance. From Information Technology point of view this problem can be addressed by implementing Big Data technology in risk management systems. This will enable financial bodies to identify the breach of Shari'ah law in the Islamic Finance activities. Big Data technology have the ability to perform analysis of vast amounts of information that can be converted into decision making and priority of impact level in risk event. Adopting Big Data technology in risk management, opens a new door to Financial Risk Management techniques with primarily focuses on Islamic finance.

Keywords: analytics, analysis, big data, compliance, Islamic finance, non-shariah, risk management, shariah.

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1.0 Introduction

Islamic finance institutions have grown alongside with conventional finance all over the world especially in Muslim countries like Malaysia, Brunei, Indonesia, United Arab Emirates (UAE) and Kuwait. Islamic finance operates according to Shari'ah principles as the foundation. The entities are governed both by Islamic laws and by the finance industry rules and regulations that apply to their conventional counterparts. Islamic Finance industry has many complex issues that need deep understanding so the risk could be identified and managed. These finance institutions need a proper and effective risk management that encompasses managing, reducing and eliminating the risk of threat, data breaches and also risk of non-compliance with regulations to survive and growth and in providing proper Islamic Financial services. Noraini Mohd Ariffin and Salina Kassim (2011) discover from their research that Islamic banks are still lacking the disclosure of Shari'ah non-compliance. There have been a number of recorded banks' risk management failures such as Baring Bank and Société Générale Bank as lesson learned for other bank to strengthen their risk management practices.

In this paper, the discussion will be based on practiced framework on Risk Management that addresses the risk of Islamic Finance. The proposed solution will look into the Information Technology perspective in assisting Islamic Finance especially in Shari'ah non-compliance risk.

2.0 Review on Bank Failure in Risk Management Practice

Islamic finance must be prepared to mitigate challenging risk which it faces as additional risk as opposed to conventional financing due to underlying Islamic operation (Cihak and Hesse, 2008) (Noraini Mohd Ariffin & Salina Kassim, 2011). Many failures in risk management practices and performance have been recorded. Bank Barring was the oldest merchant banking company in England to collapse in 1995 due to the activities of its trader, Nick Leeson who lost \$1.4 billion by investing in the Singapore International Monetary Exchange (SIMEX) under absence of oversight to detect gambling. This loss due to inadequacy of internal control.(Sam, 2009). Allied Irish Bank, the second biggest bank in Ireland lost \$750 million in 2001 through unauthorized trading done by John Rusnak also due to flaw in risk management architecture (Alan, 2004). Next risk management failure occurred at the National Australia Bank (NAB) in 2004 that lost hundreds of millions of dollars in foreign currency trading, first due to traders that depended on speculation and high risk investment activity (Jake, 2004), then the problem became worse as the perpetrators incorrectly recorded genuine transaction, entering false transaction and used false revaluation which exploited the weakness of bank's process (PriceWaterhouseCoopers, 2004). In 2008, a French bank, Société Générale lost approximately €4.9 billion due to unauthorized transactions by Jérôme Kerviel, a trader with the company. Based on Sayer (2008), this happened because of lack of security system (Sayer, 2008). Learning from the failure of conventional bank, the Islamic finance need to focus on the risk management practices as it consists of unique risk of Shar'iah law compliance.

3.0 Islamic Banking

Islamic banking was introduced in Egypt in 1959 and continues to grow rapidly throughout the world to more than 60 countries (Salman and Amanat, 2009). Among those countries, Iran, Sudan and Pakistan are the countries that had fully adopted the

financial institution within Shari'ah law (Makiyan, 2008). The perception of Islamic Banking can be define as a banking system that abide by Islamic law (Shari'ah law) (Bank Negara Malaysia, n.d) and in Malaysian Islamic Banking ACT 1983 (IBA), Islamic Banking is define as "...banking business whose aim and operation do not involve any element which is not approved by Religion of Islam." (Abdul Razak Yaakob et al, n.d.). Principles that govern Islamic finance are considered as mutual risk and profit sharing between the parties and the fairness to all transaction are based on business activity and asset.

According to Hylmun Izhar (2010), the Shari'ah principles in Islamic finance are; (a) the prohibition financial activities involving interest (riba), (b) prohibition of gambling (maysir), (c) rejection of speculative trading (gharar), (d) rejection of getting profit from Haram economic (prohibited industries like alcoholic beverages and pork products), (e) only recognized physical asset can be used in the financial transaction and (f) risk and reward must be shared with the parties involved in the financial transaction. This concept distinguishes Islamic banking from conventional banks. In Islam, it is clearly stated that Allah s.w.t. has forbid riba in Al-Baqarah verse 275 as follows:

الَّذِينَ يَأْكُلُونَ الرِّبَا لَا يَقُومُونَ إِلَّا كَمَا يَقُومُ الَّذِي يَتَخَبَّطُهُ الشَّيْطَانُ مِنَ الْمَسِّ ذَلِكَ بِأَنَّهُمْ قَالُوا إِنَّمَا الْبَيْعُ مِثْلُ الرِّبَا وَأَحَلَّ اللَّهُ الْبَيْعَ وَحَرَّمَ الرِّبَا فَمَنْ جَاءَهُ مَوْعِظَةٌ مِنْ رَبِّهِ فَاتَّقِهَا فَلَهُ مَا سَلَفَ وَأَمْرُهُ إِلَى اللَّهِ وَمَنْ عَادَ فَأُولَئِكَ أَصْحَابُ النَّارِ هُمْ فِيهَا خَالِدُونَ ﴿٢٧٥﴾

Translation: Those who consume interest cannot stand [on the Day of Resurrection] except as one stands who is being beaten by Satan into insanity. That is because they say, "Trade is [just] like interest." But Allah has permitted trade and has forbidden interest. So whoever has received an admonition from his Lord and desists may have what is past, and his affair rests with Allah. But whoever returns to [dealing in interest or usury] - those are the companions of the Fire; they will abide eternally therein. (Sahih International)

3.1 Islamic Financial Products

As mention earlier, in Islamic finance, the products will be based on the Shari'ah compliant contract. The contract cannot create debt, have interest and must provide sharing risk for parties involved. The Islamic contract must be lawful, have value and avoid inconstancy and the service or asset must exist, be owned by the seller and must be deliverable. According to Mohd Shahrulnizam Abd Hamid (n.d) as supported by Aznan Hasan (n.d), there are two categories of Shari'ah sales:

- i Shari'ah based sales: Initiated types of sales from Islamic Shari'ah and not involved with conventional product
- ii Shari'ah compliant sales: It consists of Shari'ah based and the structured sales (conventional product) that comply with Islamic Shari'ah rulings

Here are the lists of commonly used contracts in Islamic finance that must be signed by both parties when dealing with any monetary transaction:

Contracts of partnership	
Mudaraba	One party invests with another party in business activity and shares the profit from the investment (based on a pre-agreed ratio) but only investor loses money if the investment flops.
Musharaka	Both parties provide investment capital. This contract creates a joint venture in which both parties provide investment capital, entrepreneurial skills, and labor; both share the profit and/or loss of the activity.
Contracts of exchange	
Murabaha	Islamic financial institution sells goods at its cost price plus with the profit margin disclosed to the buyer and the profit amount is agreed by both parties.
Bay' Bithaman Ajil (BBA)	A murbaha sale with deferred payment and conducted as credit purchase with higher price compared to the spot price to absorb the risk related to time
Salam	This product is for loan as the counterpart of riba'. It is future contract. Islamic financial institution on behalf of the buyer pays full in advance for good that are going to be delivered in future
Istisna	Type of loan and future manufacturing sale contract. This gives permission to Islamic financial institution be the representative for buyer to buy a project that is under construction and completed in a future date.
Contracts of safety and security	
Wadia	Owner of a property gives permission to other party to safeguard their property like in Islamic banks, Wadia contract is for current accounts and saving accounts.
Hiwala	Islamic financial institutions use this contract to transfer money between people. The debt is passed from one debtor to another to free the first debtor from debt.
Kafala	Same as a guaranty in conventional finance. A third party accepts responsible to fulfill someone else's liability.
Rahn	A property is pledged against an obligation. Financial liability can be secured through a rahn contract.

TABLE 1: Islamic Financial Products Based on Sharia-Compliant Contracts

3.2 Risk Management in Islamic Finance

Risk management process is a comprehensive system that includes creating an appropriate risk management environment, maintaining an efficient risk measurement, mitigating, and monitoring process, and establishing an adequate internal control arrangement.

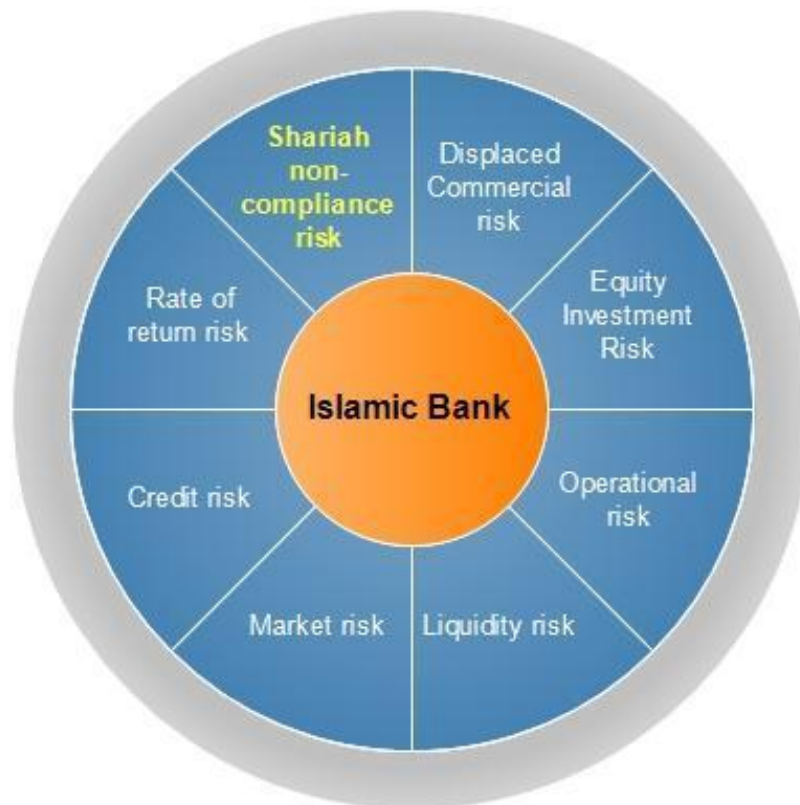


FIGURE 1: Overall Islamic Finance's Risk

The financial institution's competitive advantage depends on how well they manage their financial risk. Studying risk can help the financial institution to realize the financial institution's strategic, operational, compliance and financial objectives. As stated in Figure 1, the risk in Islamic financial institution could encompass risk of conventional finance risk as well as Islamic finance risk (Jeroen, n.d). The risk in Islamic finance are involved with financing assets in Shari'ah based sales such as Murabahah, Salam, Ijarah and Istisna. Normally, Islamic finance risk will be considered as unique risk that is different from conventional finance risk. The generic financial institution's risk can be broken up into four categories as follow:

Market Risk	Credit Risk	Operational Risk	Liquidity Risk
The risk originating as impact from adverse price movements and assets traded in economic value of asset.	The risk that counter party fail to meet its obligations timely and in line with the agreed terms	The risk due to insufficient internal processes, system and people or external events reducing the ability of banks to meet its liabilities.	The risk arise from the Bank's inability to meet its obligations or to fund increases in assets as they fall due without incurring unacceptable costs or losses

TABLE 2. Generic Financial Risk

The complete list of unique risks in Islamic finance are as follows:

Equity Investment Risk	Rate of Return Risk	Displaced Commercial Risk	Shari'ah non-compliance Risk
The risk from entering in to a partnership for the purpose of undertaking or participating in a particular financing or general business activity as described in the contract, and in which the provider of finance shares in the business risk. This risk is relevant under Mudharabah and Musharakah contracts.	The potential impact on the Islamic bank's returns due to unexpected change in the rate of returns of its assets.	The risk that the bank may confront commercial pressure to pay returns that exceed the rate that has been earned on its assets financed by investment account holders. The bank foregoes part or its entire share of profit in order to retain its fund providers and dissuade them from withdrawing their funds.	Risk arises from the failure to comply with the Shariah rules and principles

TABLE 2: Islamic Financial Risk

3.3 Concept of Risk Management in Islamic Finance from Islamic Perspective

Based on previous explanation it is understood that risk can be defined as potential loss resulting from certain action. In Islamic perspective Risk management is considered an important agenda. As stated in Surah Yusuf, verse 67:

وَقَالَ يَبْنَى لَا تَدْخُلُوا مِنْ بَابٍ وَاحِدٍ وَادْخُلُوا مِنْ أَبْوَابٍ مُتَفَرِّقَةٍ وَمَا أُغْنِي عَنْكُمْ مِنَ اللَّهِ مِنْ شَيْءٍ إِنْ أَلْحَمُّ إِلَّا لِلَّهِ عَلَيْهِ تَوَكَّلْتُ وَعَلَيْهِ فَلْيَتَوَكَّلِ الْمُتَوَكِّلُونَ ﴿٦٧﴾

Translation: And he said, "O my sons, do not enter from one gate but enter from different gates; and I cannot avail you against [the decree of] Allah at all. The decision is only for Allah; upon Him I have relied, and upon Him let those who would rely [indeed] rely." (Shahih International)

Shaykh Yasir Qadhi explain the moral behind the story of Prophet Yusuf (*alayhi salaam*) from the verse 67 from Surah Yusuf. In his explanation, he explains the advice of using different gates to enter is because a Muslim must be wise in avoiding the excessive suspicion and attention by using different method (Shaykh Yasir Qadhi, 2011). Furthermore, the mentioned verses tell a story about Prophet Ya'kub (*alayhi salaam*) who is trying to protect his children from evil eye. Based on this explanation, it can be understood that Muslim must find ways to minimize the risk which can be referred as the evil eye. Another risk management discussion can be found in the Hadith from Prophet Muhammad s.a.w (Rafiq, 2010):

"One day Allah's Messenger, sal Allahu alayhi wa sallam, noticed a Bedouin leaving his camel without tying it. He asked the Bedouin, "Why don't you tie down your camel?" The Bedouin answered, "I placed my trust in Allah." At that, the Prophet, sal Allahu alayhi wa sallam, said, "Tie your camel and place your trust in Allah" - [Tirmidhi].

The hadith above advises us as human beings to take action to ensure sufficient and effective method to protect and mitigate risks. After action is taken, then leave the rest to Allah s.w.t. for protection because there is no perfect control to mitigate the risk (Nasir Rafiq, 2010).

3.4 Shari'ah Compliance Risk Management (SCRM)

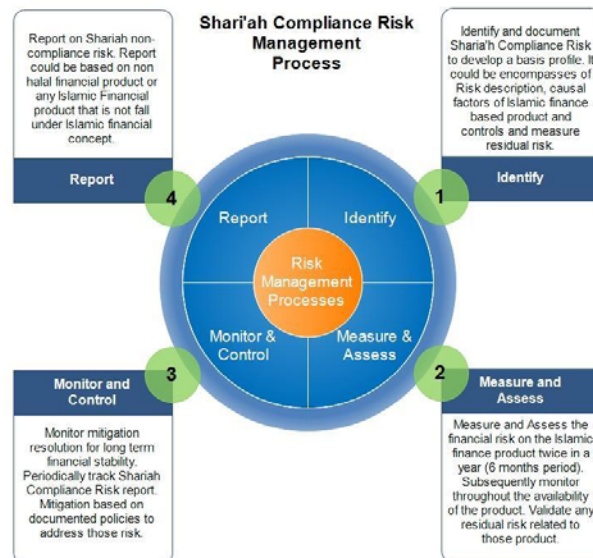


FIGURE 2. Shari'ah Compliance Risk Management Process (embraced from Mohd Nazri Chik, 2013)

For Islamic finance institution, Shari'ah compliance is a higher priority risk than other risks as the violation of Shari'ah law will lead to cancellation of transaction or income may be considered as illegitimate (Hylmun Izhar, 2010). Shari'ah compliance is the foundation for Islamic financial system. Activities between financial institution's and customers are based on Shari'ah law. The risk of Shari'ah non-compliance is critical compared to other risk and rises from the failure of financial institution to follow the Shari'ah rules and principles prescribe by the Shari'ah advisory board of bank and regulations issued by the regulatory authorities. Shari'ah Compliance and Shari'ah Governance provisions are specifically covered under Section 27 to Section 38 of the Act. Bank Islam (2013) had adopted the risk management process for Shari'ah non-compliance to mitigate this risk. Figure 2 above is the Shari'ah Compliance Risk Management (SCRM), a compilation of normal risk management process with practiced risk management process for Islamic Finance from Bank Islam Malaysia and other international financial bodies (Mohd Nazri Chik, 2013).

Mainly the Shari'ah risks can be divided in two categories:

1. Operational risk: risk of losses that includes Shari'ah non-compliance due to insufficient internal process, system and people or from external events but excludes strategic and reputational risk (Mohd Nazri Chik, 2013).
2. Reputational risk: marketing a product or a fund where its compliance with Shari'ah is questionable may find itself as labelled as non-Shari'ah compliant by the market participants.

The risk of Shari'ah non-compliance can impact non-financial risk such as breaking the command of Allah s.w.t., breaching the provision of Islamic Banking Act 1983 (Section 3(5) (a) & Section 4) and jeopardizing the Islamic finance's reputation (Mohd Nazri Chik, 2013). While in financial area, risk of Shari'ah non-compliance results in

haram income, withdrawal of funds, loss of income, invalidation of contract (aqad) or voiding of contracts that lead to reputation risk. The aspect of Shari'ah compliance risk in Islamic finance (Hylmun Izhar, 2010) can be referred to table below:

Contracts	Shari'ah Compliance Risk
Murabaha	<ul style="list-style-type: none"> •May arise due to the institution giving money instead of service and resulted exchange of money to money. The exchange of money and product must be guaranteed that the institution owns the product. •For late payment, penalty must be avoided as it will be considered same as riba'.
Salam	<ul style="list-style-type: none"> •Payment of Salam contract must be paid full in advance. •Penalty clause is illegitimate in the event of seller's default in delivering the goods •In parallel Salam, execution of second Salam contract is not contingent on the settlement of the first Salam contract
Istisna'	<ul style="list-style-type: none"> •Could arise if Istisna' is being used as a legal device for mere interest based financing. e.g. the party ordering the product to be produced is the manufacturer himself •In parallel Istisna', contracts should be separated to avoid two sales in one deal
Ijara	<ul style="list-style-type: none"> •Need to ensure that leased asset is used in a Shariah compliant manner. Otherwise, it is exposed to non-recognition of the lease income as non-permissible.
Musharakah	Shari'ah Risk may arise due to the final allocation of profit taking place based on expected profit. AAOIFI (2005: 205) commands that it is necessary that the allocation of profit is done on the basis of actual profit earned through actual or constructive valuation of the sold assets.
Mudarabah	Profit allocation is based on actual profit, not expected profit

TABLE 3: Shari'ah Compliance Risk

3.5 Review on Bank's Risk Management

Risk management practice is explained by risk management environment, policy and procedure, risk measurement practice, risk mitigation practice, risk monitoring practice and internal control practice (Noraini Mohd Ariffin & Salina Kassim, 2011).

Nocco and Stulz (2006) stated that enterprise risk management (ERM) have competitive advantage to the firm (or banks) compared to those that manage and monitor risks individually (as cited in Noraini Mohd Ariffin & Salina Kassim, 2011).

Fifth Third Bank (2013) used Enterprise Risk Management (ERM); a collection of policies, procedures, limits, and models. Enterprise Risk Management Framework that defines key risk activities for the eight different risk categories of credit risk, liquidity risk, market risk, operational risk, compliance risk, legal risk, reputational risk, and strategic risk.

Based on Ahmad Jachi (2008), the basic approach of Islamic finance risk management should consists of presentation of analytical accounting framework, identification of different risk classes and their measurement and finally the management of the risk as Figure 2 below:



FIGURE3. Islamic Finance Risk Management (IFRM), adopted from Ahmad Jachi (2008)

Mohd Nazri Chik (2013) explains the risk management framework communicates its vision and a strategy in managing risks includes the Shari'ah compliance risk. It use approach of (i) Foundation which consist of risk definition, governance and operational risk policies, (ii) Risk Mitigation Programs which include the internal control and business continuity plan, (iii) Risk Tools and Mechanism where tools for risk management are combined together and finally (iv) Risk Quantification is the way to evaluate risk and consist of input, tools and techniques and output capital allocation and insurance program. Bank Islam adopted the risk management process in their Shari'ah Compliance Risk Management. The risk management process includes identification, assessment and measurement, control and monitoring and finally reporting. The system for risk management gets the data from the source system and save it to the data mart. Next step is the firm wide risk system includes market risk and operational risk and finally the last step is the reporting process.

4.0 The Technology of Big Data

4.1 Big Data

Big data is not a new technology terms as the terms which refers to big data came early in 2001 (Laney, 2001). Data to be considered as big data is when its volume, velocity, or variety exceeds the abilities of IT systems to consume, store, analyze, and process it (Oracle, 2013). Big Data is famous among big enterprises who have huge set of data (structured or unstructured) across the organization. It is a common problem for organization in managing large set of data across all the organization, thus big data has become an alternative to address situation of unprecedented levels of data grow. One of the Big Data technology is called Hadoop. Hadoop is an open-source framework for storing large scale data. Hadoop has been widely used for data processing at some of the world's largest internet businesses. It can deal with unstructured data and it is faster and cheaper. Based on Dattoo (2013) from The Guardian has reported Hadoop is far cheaper than other rival technology based on processes of a terabyte of data.

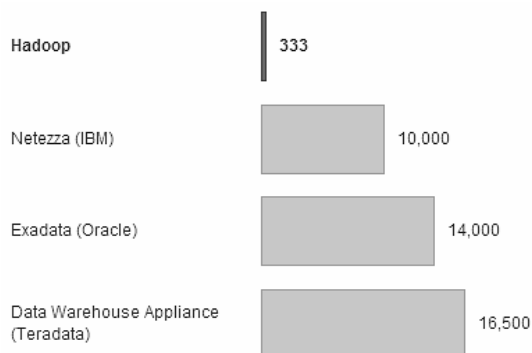


FIGURE 4. Cost in \$ per terabyte of data stored

4.2 Big Data Analytics

In the earlier explanation, we have understood Big Data is a set of data that are too large and another close term related to Big Data is Big Data Analytics that can be defined as the process of examining, analysing or mining those unstructured large amounts of data to effectively extract for useful information (CSA, 2013). The main objective of Big Data analytics is to assist organization in effective decision making with its advance analytic technology. Big data analytics allow users to take advantage of these distributed computing systems storing large quantities of data through flexible parallel processing and created differences between traditional analytics and big data analytics. The big data analytics can be easily understood as a technology for managers in analyzing the digital information and using it to make better-informed decisions.

4.3 How Big Data can contribution to Financial Risk Management

Big data technology has the ability to store huge volumes of data and perform analysis in parallel with functions to aggregating those data for further analysis on any financial issue. It becomes difficult to tracks any financial market cause of the diverse product and large number of scenarios such as changes in interest rates, exchange rates, and policy to be analyzed before even the risk is identified. With Big Data technology the analysis can be done easily by gathering every aspect of risk contributing to failure of the Islamic based financial products. For example, with detail analytics function, the system can do a background study on the source of investment fund to identify whether it is against the Shari'ah compliance or not. A key characteristic of analysis can be done from wide extracts of data such as profit ratio, rate of return, investment rate, pricing, customers, competitive, costs and security functions can be used as well to supplement for its other Islamic Financial analysis. The advance technology of Big Data and analytics has the power to study any past scenario based on past financial data to stimulate any market growth of Islamic Finance product. Bank whose activity conduct stress testing and scenario analysis have the capabilities to do so hence aid in quick risk identification and risk mitigation action.

5.0 Proposed Solution

As mention earlier, financial risk management has been a crucial agenda and the diverse products coming into the market have become even more challenging to track and monitor the risk before it damages the financial sector. Islamic finance risk management has been argued over the years and many frameworks have been introduced. The study mainly focuses on the financial sector rather than IT sector. Certain, studies that have been conducted did outline guidelines or framework for effective Shari'ah Compliance Risk Management in IT perspective. However, the idea is too general and the implementation doesn't have a solid foundation to be used as basis to support SCRM in IT. The proposed solution would be to address that gap with focus on the basic processes of Risk Management. The basic processes of Shari'ah Compliance Risk Management encompass four general processes as defined in Figure 2. Those processes have been adopted as a basic foundation in the proposed solution. The result of analysis done by Big Data platform will be outline those basic principles of risk management. Thus, the integration of those processes with the technology will be understandable and the

implementation will be reasonable. The integration between Big Data technology and SCRM as proposed may open various new idea of bringing new IT technology to address the SCRM issue. The following Figure 5 outlines the proposed Big Data Technology integration with Shari'ah Compliance Risk Management (SCRM) divided into five area of risk stage.

5.1 Identify

Identify any non-shariah compliant product based. It could encompass risk outline in policy of non-compliance and could be from residual risk. When a financial institution creates a new product, it will have to enter the details of the product such as type contracts, their category and principles. Based on the entered information, the system will try to find any non-compliance issue. If any non-compliance issue were found, the system will alert the authority for proper measurement action.

5.2 Measure and Access

In this stage, when the product is released to the market, there could be residual risk which causes the product to be non-compliant. For an example, in Mudaraba (an investment product), over the six month period, the source of funding for the investment might not be the same as it was first informed. Thus, the system should run validation periodically on product that has been released to make sure it follows the compliance rules of Islamic finance.

5.3 Monitor and Control

In this area, the system will actively monitor the released product to make sure the product does contribute to financial stability as well as following the compliance standards set. For example, a loan based product called Salam and Istisna might not contribute adequate amount of financial turnover to maintain the stability of the financial institution. Such problem could be related to profit rate that is too low when the current market is changing. Thus, monitoring aspect is important, not only to preserve the compliance of the Islamic product but also to monitor the market stability of the particular product over the years.

5.4 Report

All the data stored in the database will be retrieved for monthly or quarterly report. Based on those reports, financial institution can comprehend stability, compliance, residual risk and liquidity risk that may still exist or the risk could appear over the years to come based on market stability. The report data can be used as revision for the financial institution so that they will be able to take future action on risk mitigation and risk planning for the financial institution.

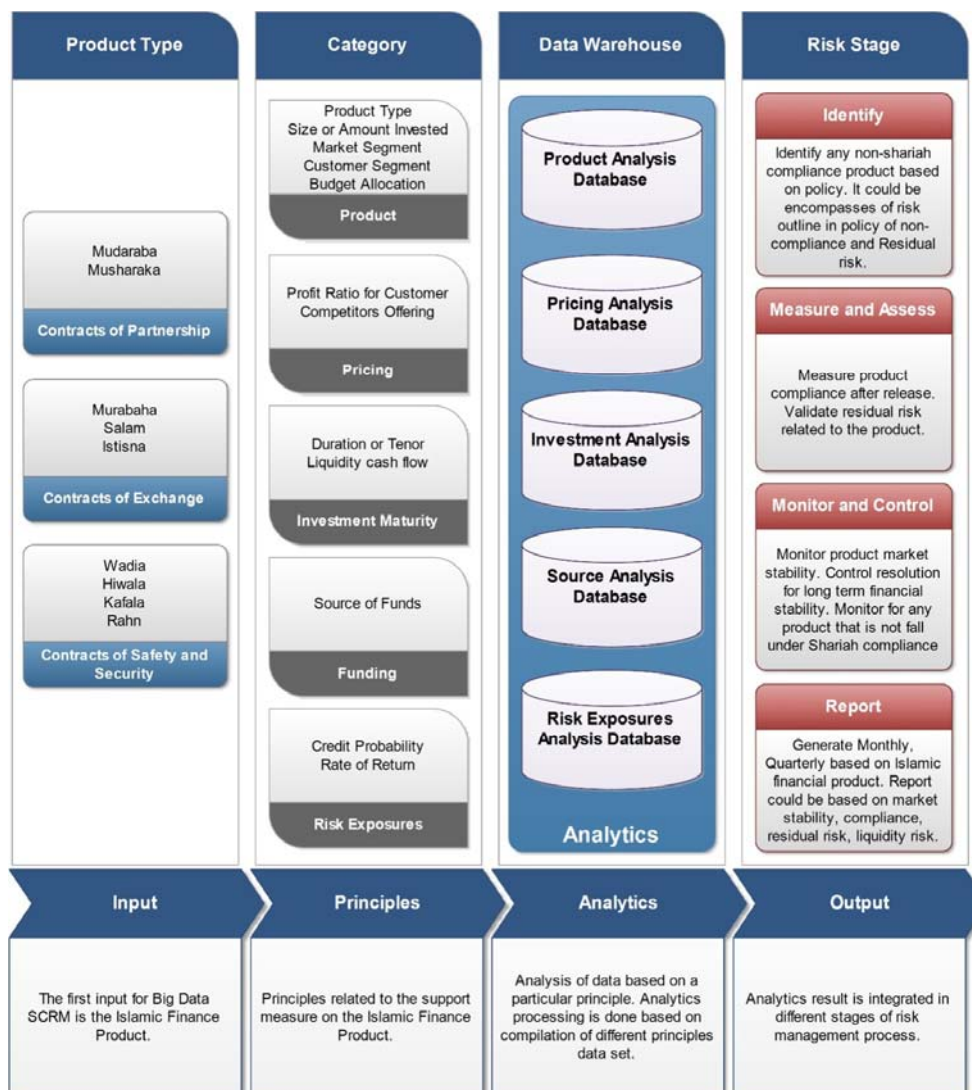


FIGURE 5. Integration of Big Data technology in SCRM

6.0 Conclusion

Risk management practices in Islamic finance are very challenging. It is important to have necessary action to manage the risk in Islamic financial institution especially in Shari'ah compliance. As the rapid growth of Islamic finance nowadays, the proper mechanism to implement better technology for its risk management is becoming a vital issue. Better Risk Management system can be introduced to better the practice of risk management processes such as monitoring and mitigating the Shari'ah non-compliance to ensure the activities in the Islamic finance abide by the Shari'ah law. The development of new technology for risk management in Islamic finance is required to sustain their competitiveness in the market. With the proposed solution of implementing Big Data in the risk management for Shari'ah compliance, the Islamic finance hopefully can mitigate their risk of Shari'ah compliance in an efficient technique than before.

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Country Model: Iran*

Islamic Republic of Iran is the largest contributor in overall Islamic finance industry with 42.7 percent share². In terms of top institutions, seven out of ten Islamic banks are from Iran; the biggest Islamic bank (Bank Melli) is also in Iran. However, given its huge potential and bigger size, the Islamic Republic of Iran does not appear an active participant in the global Islamic financial market. However, the joining of Iran's Securities and Exchange Organization (SEO) as full member of IFSB is an encouraging development in this regard.

Evolution of Islamic Banking

After the Islamic revolution in Iran in 1979, the process of Islamisation of banking system initiated with nationalization of all banks during the period 1979-82. In 1983, the most significant development, the law of Usury Free Banking, was passed in the country which became effective since the end of first quarter 1984. According to the law, banks were granted one year to convert their deposits in compliance with Islamic law and three years to make their full operations free from interest.

However, the law has not explicitly defined the prohibited *riba* while it is also acceptable for government owned institutions and departments to continue with their interest based transactions and agreements between each other. Consequently, banks can offer interest based funding to all government institutions/ organizations. Furthermore, banks are also permitted for offering non-contractual non-fixed bonuses in cash or in kind to their depositors. This has provided space to these banks to continue with accounting standards and practices of conventional banking. All these features indicate Islamic banking in Iran significantly different from the basic features of Islamic banking in other regions of the world. However, the Islamic republic of Iran is making efforts to nurture its Islamic banking by developing new Shariah compliant financial instruments. In this regard, the significant development is the approval of Law for Development of New Financial Instruments and Institutions in early 2010 and the preparation of necessary regulations in response to the law.

The Islamic Republic of Iran is also aware of the significance of Sukuk and the capital market of the republic has started emphasizing on this instrument to raise financing. The market of sukuk was originated in Iran with the issuance of Musharaka

Source: Tehrantimes; <http://tehrantimes.com/economy-and-business/106521-iran-holds-427-of-total-global-islamic-banking-assets> {accessed on May 20, 2014}

* Source: State Bank of Pakistan, Quarterly Islamic Banking Bulletin

Sukuk in 1994 by the municipality of Tehran. This successful first experience was followed by many state owned and private sector companies who used this instrument of Musharkaha Sukuk to raise funds. At that time those issuances were governed by regulations of the central bank which were issued in 1994. Later on in 1997 the Iran's parliament ratified the Law for Issuing of Musharaka Sukuk. According to the law the central bank was authorised to provide required permission for issuance of Musharkaha sukuk which was later shifted to SEO in 2005. In 2008 SEO has passed terms of reference for issuance of Ijara Sukuk, while the first Ijara sukuk came after three years of these regulations.

Conclusion

Islamic republic of Iran though constitutes major share of Islamic banking in the global market, however, the growth of banking sector has remained very sluggish. The republic has also not been seen as an active player in international market mainly due to economic sanctions against them as well as due to the premise that the fundamentals of Islamic banking prevalent in Iran are different from other countries having Islamic finance.

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NATIONAL

Pakistan central bank plan to boost Islamic banking

August 2014: State Bank of Pakistan's plan targets a 15% share of banking system assets for the sector by 2018. State Bank of Pakistan's (SBP) five-year strategic plan will drive strong asset growth in the Islamic finance sector, given the high domestic demand for Islamic banking, according to global rating agency Moody's.

SBP's plan targets a 15 per cent share of banking system assets for the sector by 2018, up from around 10 per cent as of December 2013.

"We believe that this strategic initiative will lead to strong growth and consolidation in the sector, given the relatively small size of market participants and capital bases needed to support growth," said Khalid Howladar, Moody's Global Head of Islamic Finance.

Source: Gulf News

Meezan Bank, Systems Limited sign agreement

August 2014: Systems Limited, an IBM business partner and the region's premier software house, has been appointed by Meezan Bank, which is Pakistan's first and largest Islamic bank, for the implementation of IBM Integration Bus. With this implementation, Meezan Bank would be able to extensively capitalize on their existing IT investments at remarkably low costs while enhancing business stability and increasing productivity.

Source: Business Recorder

HMB selects 'SIRAT' as its Islamic Banking Brand Name

August 2014: The word "SIRAT" (meaning path and a direction) has been carefully selected for our Islamic Banking offering. It is also an inspired journey towards excellence as a trusted partner for customers. HMB has developed this name and image also in alignment with their group strategy locally and internationally. The same reflects in the implication of the inner working of the brand named SIRAT: S-Security, I-Integrity, R-Reliability, A-Accessibility and T-Trust. The brand also depicts our legacy and corporate philosophy as a well recognized and respectable financial institution. The Bank practices strong ethical values which have been at the forefront for providing Shariah compliant banking solutions.

Source: Business Recorder

Islamic banking: Growing fast but can it be more than a niche market?

July 18, 2014: For years, Islamic banks have been growing at a double digit pace.

Ernst and Young (E&Y), in their latest World Islamic Banking Competitiveness report, shows the assets of Islamic banks grew at an average rate of 17% per year between 2008 and 2012.

This is two to three times faster than the rate at which conventional banks grew over the same period, due in part to the global financial crisis.

Islamic banks differ because they have to run their operations in a way that is consistent with the principles of Islamic law or sharia.

This prohibits banks from dealing with businesses that are considered sinful or haraam such as pork, alcohol and gambling. Admittedly, this is not much of a constraint.

However, usury or riba is also prohibited under shariah law so in principle banks cannot charge fees or interest for money lending.

Source: BBC News

Burj Bank NBP seeks to conduct due diligence

August 2014: National Bank of Pakistan (NBP) is seeking permission to conduct due diligence of Burj Bank Limited to acquire its majority shares. Sources in banking industry said that NBP has formally applied with State Bank of Pakistan (SBP) for a permission to conduct due diligence of Burj Bank, one of Islamic based banking institutions, willing to sale its Pakistan operation. Now shift its focus from micro finance to medium enterprises as this sector is not being properly catered by the incumbent financial institutions.

Source: The News

Mufti Hassaan joins DIB Pakistan as head of Shari'a

August 2014: Dubai Islamic Bank Pakistan (DIBPL) has appointed Mufti Muhammad Hassaan Kaleem as the Bank's new country head of Shari'a. Mufti Hassaan has also been appointed a member of the bank's Shari'a Board by the Board of Directors of DIBPL, subject to approval of State Bank of Pakistan.

Source: Dubai Islamic Bank Media Centre

FAA, Meezan Bank hold workshop

June 2014: In order to provide a platform for entire Islamic Banking Industry of Pakistan, Meezan Bank organized first-ever training accreditation workshop for Islamic Banking in Pakistan at its Head Office jointly with Finance Accreditation Agency (FAA), Malaysia. The training was conducted by Amat Taap – CEO FAA. This workshop was attended by prominent bankers and Shariah scholars of many Islamic banks, Islamic bank window operations of conventional banks, Modaraba Association and academic professionals. While conducting the workshop, Amat Taap – CEO FAA emphasized on the need of quality training in the Islamic Banking & Finance industry. He added that Pakistan is ranked as No. 1 in Islamic Finance education providers. He further briefed the audience on the importance, benefit and procedure of the proposed Finance Accreditation Program. Ahmed Ali Siddiqui, EVP-Head of Product Development and Shariah Compliance (PDSC)

Source: Daily Times

Basel III could help boost Islamic banks' capitalization, liquidity management, says S&P

Standard & Poor's Ratings Services believes the Islamic Financial Services Board's (IFSB) revised capital requirements for Basel III could help to strengthen the Islamic

finance industry according to its report *Basel III Offers 'An Opportunity For Islamic Banks To Strengthen Their Capitalization And Liquidity Management.'*

Source: Saudi Gazette

Pakistan tightens rules on Islamic banking windows

Pakistan's central bank has issued new rules for the operation of Islamic banking windows, aiming to strengthen their role in the world's second-most populous Muslim nation. The new requirements come at a time when Pakistan is stepping up efforts to develop Islamic finance, prompting several banks to expand their operations in the sector.

Source: Arab Times

INTERNATIONAL

Al Baraka joins global Islamic banking research

Al Baraka Banking Group has announced its collaboration with the World Bank to begin a research partnership that would be beneficial to the global Islamic banking industry.

The partnership's first initiative, part of a planned series of research projects, will be a study examining the risk-management challenges facing Islamic banks, with a particular focus on musharaka and mudaraba under the profit-and-loss-sharing system. Group President & Chief Executive Adnan Ahmed Yousif stated: "The collaboration with the World Bank is yet another demonstration of the group's commitment to research and knowledge-building in the Islamic financial services industry."

Source: Zawya

Robust growth seen in Oman's Islamic banking activities in first half

August, 2014: The Islamic banking activities witnessed a significant growth during the first half of 2014 in terms of deposits, revenues and finance amidst a remarkable turnout for Islamic banking products by individuals and corporate. The net revenues of Islamic banks and windows rose to OMR16.6 million by the end of June 2014, compared to OMR6.7 million at the end of June 2013, a 147 per cent growth. The deposits also grew by 133 per cent to hit OMR358.7 million, compared to OMR154 million during the same period last year.

Source: Times of Oman

Islamic banking faces challenging, yet promising future in Russia

Islamic banks in Russia are in a rather tricky position from the point of view of their legal status, taxation and contractual relations. However, the sector is now being actively developed and shows promise for the future.

One of the success stories in global finance of the last few decades has been the rise of Islamic banking, with \$822 billion worth of assets being managed in banks compliant with Islamic principles around the world by 2009, according to banking industry publication, The Banker.

Source: Russia and India Report

Philippine Islamic Bank Eyes New Life after Years of Struggle

A peace plan, a lifting of foreign ownership limits and the drafting of new Islamic banking rules in the Philippines could help breathe new life into one of the world's oldest Islamic finance institutions.

But while Islamic banks around the globe enjoy rapid growth rates and bumper profits, Al Amanah has failed to post a profit for years, and was ultimately forced to offer conventional banking products just to keep afloat.

The case of Al Amanah highlights the challenges that Muslim minorities face in accessing interest-free banking services outside of Islamic banking's core centres in the Middle East and Southeast Asia.

Lacking scale and Islamic banking expertise have meant Al Amanah has struggled despite a five-year rehabilitation plan started in 2009 by its parent, the Development Bank of the Philippines (DBP)

Source: Reuters

Islamic Finance on the rise in North Africa

The estimated \$1.4 trillion global Islamic finance sector could be on the rise in North Africa where governments have been introducing new regulation as they seek Shari'a-compliant alternatives for decreasing conventional funding sources and try to plug current account deficits. Tunisia and Egypt implemented new laws allowing for the issuance of Islamic bonds in late 2013, while Morocco last month put in place a legal framework for Islamic institutions, according to Standard & Poor's.

Source: Wall Street Journal

Bahrain eyes external Sharia audits for Islamic banks

Bahrain's Waqf Fund, a non-profit body set up by the central bank, has proposed mandatory external Shari'a audits for Islamic financial institutions to help strengthen compliance and improve the image of the industry. Regulators around the world are increasing their scrutiny of Islamic finance, including the boards of Shari'a scholars who rule on whether activities follow religious principles. Since Shari'a boards tend to be paid by the institutions whose activities they oversee, the scholars can be open to accusations of conflicts of interest - prompting calls for separate and independent oversight.

Source: Reuters

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The contributors are requested to observe the following rules.

- Articles should be typed in M.S. Word and restricted to 10 to 15 pages of A-4 size paper. We accept original contributions only and if the material is taken from some book or any other source, the source may be mentioned. The editorial team does not assume any liability for the views of the writers expressed in their articles nor may necessarily agree with their views.
- The articles should be submitted before start of the first month of each quarter, beginning from January, April, July & October enabling review and approval of the material by the editorial board for publication in the issue in hand.
- If the editorial Board is of the opinion that the article provisionally accepted for publication needs to be revised, shortened, or the particular expressions therein need to be deleted or rephrased, such opinions will be communicated to the author for appropriate action. The author may also be requested to recast any article in response to the comments made thereon by the reviewers.
- The numbering of footnotes will be consecutive, and the footnotes themselves will be placed at the end of the article.
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