Risk Management Innovation of Islamic Financial Institutions

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Abstract - **The early of the millennium witnesses fast development in Islamic Financial Institutions. Professional practise and Islamic Financial specialist academics have been breathlessly racing to invent new Islamic Financial Institutions innovation in a rushing attempt to fill in all gaps and satisfy every need that may be thought of. The present paper aims at studying the risk management innovation arrangement in Islamic finance as may be derived from the axioms and rulings, especially in relation to the managing the risk. This is necessary to investigate the means and processes of risk management based on the Islamic financial paradigm. Even though, on average the Islamic Financial Institutions have good risk management practices, there is still enough room for Islamic Financial Institutions to improve their risk management system. The introduction of an effective risk management culture in Islamic Financial Institutions will ensure their competitiveness in the financial industry and financial crises.**

Keywords-component; ***Risk Management Innovations; Islamic Financial Institutions***

I. INTRODUCTION

The emergence and rapid growth of Islamic finance today is a reflection of the comprehensive and complete of Islam as a religion and a way of life. It is really represented as an integrated and holistic worldview covering various aspects of human living, economic activities, political behaviors, and educational development. Each of these aspects of human living cannot be treated in isolation from each other. Whether at the level of worship*(ibadah*) or those mundane affairs *(muamalah).* Islam is the carrier of a teaching which is entirely directed towards the collective and social dimension. It is to extend that we can say that there is unreal practice of religion without personal involvement and investment in the community (ISRA, 2011).

In 1960's, Islamic finance was said to be in an early stage and thus needed a lot of nurturing and protection for it to see the light of day. Less than ten years ago, Islamic Finance was known as an industry in transition operating as an emerging product in emerging markets. Currently, Islamic finance has a firm footing in developed markets such as and is expanding its reach to Europe, while still growing and experiencing market penetration and product development trends in its stronghold markets in IDB (Islamic Development Bank) member countries.

Islamic finance is effectively an industry that is broadening its ownership base and building a strong value proposition for it to reach wider acceptance and richer value. Today, more than 500 Islamic financial institutions are operating worldwide, which are claimed to manage assets worth no less than $1.2 trillion. Islamic financial institutions registering an unprecedented growth of 20-30 percent in the last ten years (The European Financial Review, 2014).

The objectives of this paper are to discusses the issues arise on risks management of Islamic financial institutions and the innovations in manage the risks by focusing on operational risks management. Risk management of Islamic financial institution are becoming focused on the arrangements in manage risk management at the Islamic financial institution in order to maintain the risk at adequate parameters to permit the development of the Islamic financial institution activity in best conditions.

The remaining of this paper divided into four sections. The first section is discussed about the introduction of Innovation Risk Management in Islamic Financial Institution. The second section, discuss the development of Islamic financial institutions. The third section will discuss risk management overview and the key of risk. We will argue that risk management activities themselves can expose Islamic financial Institutions to risk. In the fourth section; we will discuss operational risk management innovation and their application in Islamic Financial Institution. The last section concludes the paper Innovation Risk Management in Islamic Financial Institutions.

II. AN OVERVIEW OF ISLAMIC FINANCIAL INSTITUTION

Islamic financial institutions were established three decades ago as an alternative to conventional financial institutions mainly to provide compliant investments, financing, and trading opportunities. The Islamic financial institutions school of thought can be investigated from 1500 B.C with the advent of Islam and *teaching of Quran*. But it is gaining global importance and emerging as an alternative to interest based economic system (Satar, 2011). The Islamic financial institutions industry has grown impressively during a short period of time. In the early 1960's, Islamic financial institutions and finance sector witnessed a steady growth in its different aspects such as size, complexity of the transactions, and internal processes. It has been estimated that the sector is witnessing a 15% annual growth rate (10% of which is in the gulf region (ISRA, 2011).

Financial Services Authority, the financial services regulator in the United Kingdom, recently estimated Islamic banking was as large as $500 billion. Standard & Poor's, a rating agency, estimates that the *Sukuk* (deed) market has reached $70 billion, and will top the $160 billion mark by the end of the decade.

Due to Islamic *Shari'ah* rules, Islamic financial institution cannot be involved in the production or distribution of specific activities which are forbidden by Islam such as alcohol, pork, and gambling. In replacement, they should invest in long-term assets such as Profit Sharing Agreement (*Mudharabah*), Cost-Plus-Financing (*Murabaha*), Equity Participation (*Musharaka*), and Leasing (*Ijarah*). These activities are based on real assets rather than financial assets (Bahrain Monetary Agency, 2006).

III. WHY IS RISK MANAGEMENT NEEDED?

One of the major aspects that should be taken into consideration in dealing with Islamic finance is risk management and then risk mitigation. With respect to financial institutions, risk management, as defined by finance literature, is the practice of creating economic value in a firm by using financial instruments to manage the exposure to different risks. Being involved in the intermediation process, risk management is as important to the Islamic Financial Institutions as it is to the conventional financial institution (A risk management standard, 2002). A growing literature suggested that risk management is even more challenging for the Islamic Financial Institutions compared to the conventional counterpart

Islamic financial institutions are a risky business and several risk factors have been identified as critical to ensure that the Islamic financial institutions position remain intact amid the intense competition in the industry. The survival and success of a financial organization depends critically on the efficiency of managing these risks (Khan and Ahmed, 2010). More importantly, good risk management is highly relevant in providing better return to the stakeholders (At-Tamimi, 2007). In addition, prudent risk management by financial institutions is the hallmark to avoid financial distress that could lead to financial crisis. In view of this, the issue of risk management in the financial institutions is a topic interest not only to the industry players, but also the policy makers.

Risk is variability and volatility of unpredictable out comes. Financial institutions face number of risks these can be classified in different ways such as business risks, operational risks and financial risks. As far as the business risks are concerned they arise from the nature of business while financial risks arise from the possible loss in financial market due to movement in financial variables. Financial risks include market risk and credit risk, while non-financial risks are operational risk, regulatory risk and legal risk. Having a full furnished risk profile in view, the risk management normally demands some step for each type of risk included in the profile.

Because of the fact that the importance of risk management, highly recognized international institutions such as the Basel committee has suggested a set of principles and rules in order to identify and mitigate different financial risks. For example, Basel two, pillar one recommended sets of principles to calculate minimum capital requirements necessary to support the different risks in the business. While pillar two has recommended set of principles to be adopted by the Islamic Financial Institutions supervisory authority in order to have an effective review over the risk management process. Islamic Financial Institutions, being part of the financial sector, aim through risk management to identify, control, and mitigate the different risks they face in order to maximize owner's value and preserve depositors rights.

The importance of the risk management system in the Islamic financial sector has lead international financial authorities that deals with Islamic finance such as the Islamic Financial Services Board (2005) to formulate and recommend set of principles for the best practice of the system. This means that risk management is a crucial element of any Islamic financial institutions aiming to sustain its operations for the future since it is considered as an important factor in mitigating the probability of failure due to improper risk handling, thus leading to a direct negative effect on the owners, depositors, and consequently the society.

The Key of Risk

According to financial knowledge (finance) and economics, such as stated Heffernan (1995) risk is defined as volatilities or standard deviation of the net cash flow of a company / business unit. Risk exists when there is a possibility that the outcome of a not just a single event and its biggest outcome is unknown. Risk also changes or movement over outcomes that are not expected (Khan and Ahmad, 2001). Possibility Islamic financial institutions loss as a result of
change in conditions that affect the value of position among Islamic financial institutions including definitions of risk.

State Islamic Financial Institution of Pakistan document defines financial risk in the Islamic financial institutions organization with possibility (probability) that outcome of an activity ".... could bring up adverse impact". It is would cause direct harm to the income or capital position of the Islamic financial institution or the Islamic financial institution's ability to achieve its business objectives. It will also affect the ability of Islamic financial institution conducting business or to obtain advantage and opportunity of extending the reach of its business.

The risk associated with Islamic financial institutions refers to the probable reductions in their value due to changes in the business environment. In other word, risk refers to probable loss of income and asset value. Only unexpected losses are included and expected losses are not included in the definition of risk.

Hence, Islamic reporter of risk contained in the terms *maysir* and *gharar*. As Islam prohibits compliance needs in falsehood; usury, *maysir*, and *gharar* is a source of the most important of the sleaze. Justice aspect is emphasized Islam does not require the falsehood because it would undermine the achievement of the overall objectives of Islam (*falah* or welfare).

The prohibition of *riba* and *gharar* (including *maysir*) become a central issue in the discussion of the Islamic finance. *Riba* more intersect with interest (interest), *gharar* while related with the problem of risk (risk). These restrictions have important implications for the nature of the financial assets, trade, and risk mitigation, as well as the management Islamic financial assets in general (Thariq, 2004).

Hassan (2009) identifies three types of risks from the Islamic Perspective. First, is the essential risk that is inherent in all business transactions. This business risk is necessary and must be undertaken to reap the associated reward or profit. Two legal maxim associating returns to essential risks form the basis of Islamic economic transaction. The first maxim state "the detriment is as a return for the benefit *(*Majallah, 2011). This maxim attaches "the entitlement of gain" to the "responsibility of loss". This maxim is usually used to propose the preference for profit-and-loss-sharing (PLS) financing instruments. The second maxim is derived from the Prophetic saying stating that "the benefit of a thing is a return for the liability for loss from that thing" (Majallah, 2011). The maxim asserts that the party enjoying the full benefits of an asset or object should be bearing the risk of ownership.

Second is the prohibited risk in the form of excessive *gharar*. Gharar means uncertainty and risk. *Gharar* is not precisely defined as *riba* where it is absolutely prohibited. According to Arsalan Tariq (2004) *gharar* is any transaction whose consequences are hidden. A minor part of *gharar* may refer to consumer protection in modern securities law. *Gharar* is present when an essential element of a transaction is missing such as the exact price or the ability to deliver the product. *Gharar* is considered to be the second major prohibition in Islamic Financial Institutions and finance. Generally, *gharar* relates to the ambiguity and or ignorance of either the terms of the contract or in the object of the contract. Thus, a sale can be void due to *gharar*, due to risks of existence and taking position of the object of sale on one hand and uncertainty of the quantity, quality, price and time of payment on the other. Ibn Taymiyyah (1998) provides another perspective of forbidden *gharar* by equating it to activities leading to evils and unjustified devouring of people's wealth as in the case of gambling. Thus, transactions having gambling-like features are forbidden due to excessive *gharar* this prohibition aims to protect both small and large investors from future risks arising from uncertainty and speculation. An example of *gharar* is trading what you do not actually own. A contemporary example would be buying a house where the price or the specifications will be determined in the future.

The final form of risk identified by Hassan is the permissible risk that does not fall in the above two categories. Examples of these risks can be operational risks, liquidity risks, etc. These risks can be either be accepted or avoided. Although all businesses face uncertainty (risk), financial institutions will feature a special feature of the risks resulting from their activities. Risks faced financial institutions can be divided into financial and non-financial risks. Financial risks consist of market risk and credit risk. Non-financial risk is risks operational, complains risk and legal risk (Khan and Ahmed, 2011).

Credit risk is defined as the prospect that the counterparty fails to meet its obligations in accordance with agreed terms. This type of risk is considered to be the main risk associated with Islamic as well as conventional financial institution. The lending in conventional financial institution is replaced by investment and partnership in the Islamic financial institutions system. Therefore, Islamic financial institution a chance of experiencing credit risks because the value of the traded commodity is volatile and may change. Islamic financial institutions have to bear market risk and commodity risk on the asset side of the balance sheet (Tariqullah, 2007).

Historically, credit risk has been thought of as the most significant risk in financial institutions, as it was the main reason for major cause of serious financial institutions potential distress continues to be lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other external circumstances that can adversely impact the credit standing of a financial institution counterparties. Based on principle it is said that credit risk inherent Islamic financial institutions is intermingled with other risks, such as market risk, which makes it more severe than that in conventional financial institutions. Nevertheless, it should be clarified that in conventional financial institutions too market risk associate other types of risks, which is referred to as the grey area accompanying credit and market risks, identified by Morrison (2004). The grey area appear when credit risk is caused by unfavorable market conditions, which implies credit risk in this case arises as a result of market risk.

Market Risk. Different from conventional banks, the market risk in Islamic banks is concentrated in the banking book due to *Murabaha, Ijarah, Salam, Musharaka and Murabaha*. According to Ashhoob (2013) credit risk and market risk must be managed together. The market risk in Islamic financial institutions refers to the potential impact of adverse price movements such as benchmark rates (mark up risk), price risk, foreign exchange (FX) risk, as well as price fluctuations in securities price risk. The market risk may also arise from a decrease in the returns of investment accounts (saving). To protect against this, Islamic banks are creating special funds (IRR and PER) aimed to support the clients in the case of non-desirable outcomes. These funds are created from the contribution of some of the bank's profits, investors, and Takaful companies (Islamic Insurance).

Another issue development in the area of Islamic financial instruments is a new form of debt; Islamic *Sukuk*, in their diversity and capability to provide funds. These are Islamic bonds that act like regular bonds but comply with the rules of *Shari'ah*. Islamic *Sukuk* can be an ideal solution in developing an integrated market of financial instruments of various risk levels to meet the needs of the investors. Islamic *Sukuk* will enhance the ability of the markets to grow, because its growth will not depend on the size of the institution and its ability to borrow, but on its ability to issue *Sukuk* resulting from securitizing assets. Permitting institutions to issue *Sukuk* will improve their financial returns, growth prospects, and spread the risks resulting from the institutions borrowing from a larger number of investors those that issue *Sukuk*, and not to let it be borne by Islamic financial institution. In other words, it will improve the credit rating of the institutions that issue the *Sukuk* and the banks that finance it (Box, 2005; Al Manea, 2006).

Liquidity risk is the potential loss due to the incapability to meet obligations or to fund increases in assets. The two major types of fund providers are the current account and the profit loss sharing accounts. Because the current account generates zero profit, it is considered as a debt or a loan that will be paid instantly upon the client's request. Therefore, Islamic banks must provide enough funds to support potential withdrawals. According to Yaqoobi (2008), liquidity risk in Islamic financial institutions is reduced internally and externally. It is reduced internally because it goes through the *Shari'ah* board principles that treat financial institution management, shareholders, and stakeholders as trusted business partners. It is reduced externally, because it is regulated and connected with the real sector underneath the *Shari'ah* regulations. Risks such as rate of return, withdrawal, and treasury risk will all lead to liquidity risk.

Liquidity management function is a challenging task affecting the performance of Islamic financial institution, which is particularly vulnerable to liquidity risk given their limited opportunities to access funds to meet their obligations. Such risk results from the mismatch between the maturities of the two sides of the balance sheet, creating either a surplus of cash that needs to be invested or a shortage of cash that needs to be funded (Maroun, 2002). Prohibition by *Shari'ah* law from borrowing as well as the absence of an active inters financial institution money market has restricted Islamic financial institution options to efficiently manage their liquidity position. The current use of secured commodity *Murabaha* and short-term trade financing has enabled Islamic financial institution to invest their short-term surplus cash. However, Islamic financial institutions do not have an efficient mechanism for funding their shortage of cash in case of need (Secured commodity *Murabaha* involves the purchase of commodities, traded on the London Metal Exchange, with the full payment of the spot price. This is followed by their sale to a third party on the basis of *Murabaha*for a deferred payment with a maturity of one week to six months with spot delivery. Repayment of the principal and profit is usually guaranteed by an acceptable international bank. Short-term trade financing is similar to secured commodity *Murabaha* except for the fact that it is mainly used to finance the importation of basic commodities needed locally, such as crude oil).

Therefore, these factors have raised Islamic financial institution exposure to liquidity risk, and adversely affected their profitability by limiting their ability to invest their capital in long-term, generally less liquid but more profitable assets in order to honour withdrawal requests from their depositors. According to Maroun (2002), factors such as lack of *Shari'ah* compatible instruments, the absence of qualified market makers and the limited dissemination of information and data hinder the development of well-functioning secondary markets where long-term instruments can be traded. For instance, long-term *Mudharabah* investment certificates can provide liquidity for both the bank and the investor by enabling the latter to trade the certificates in the secondary market without the need to redeem them directly with the issuing financial institution

(As a result of these constraints, most transactions take place in the primary market with limited trading in the Secondary market. *Ijara Sukuk*, issued by the Bahrain Monetary Authority (BMA), present an exception for which a secondary market exists. They are traded on the Bahrain Stock Exchange).

. In this respect, the establishment of the International Islamic Financial Market (IIFM) and the Liquidity Management Centre (LMC) should permit a more efficient management of Islamic financial institutions liquidity needs.

Operational risk. According to BCBS (2001), operational risk is the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and technology or from external events. Operational risks are more significant in Islamic financial institutions than conventional ones due to their specific features such as *Shari'ah* requirements and legal environment. The main operational risks associated with Islamic financial institutions are people risk, technological and system risk, and legal risks (Vicary Abdullah, 2007).

As the Islamic financial institutions are newly formed industry, therefore the operational risk in terms of personal risk can be acute in these institutions. One of the challenges faced by Islamic financial institutions is the lack of qualified professionals (capacity and capability) to conduct the Islamic financial operations (Khan and Habib, 2007). Particularly the different nature of business, the computer software available in the market for conventional financial institutions may not be appropriate for Islamic financial institutions. This gives rise to system risks of developing and using informational technologies in Islamic financial institutions.

Legal Risk. Given the different nature of financial contracts, Islamic financial institutions face risk related to their documentation and enforcement. As there is no standard form of contracts for various financial instruments, Islamic financial institutions prepare these according to their understanding of the regulation, the local laws, and their needs and concern. Lack of standardized contracts along with the fact that there are no litigation systems to resolve problems associated with enforceability of contracts by the counterparty increases the legal risks associated with the Islamic financial institutions contractual agreements. Equally important for the operation of Islamic as well as conventional financial institutions is the presence of a conductive institutional environment and an efficient regulatory framework. Such poor supporting institutional infrastructure exposes Islamic financial institutions to systemic risks related to institutional, legal and regulatory issues. At the forefront of these is institutional risk resulting from the lack of consensus among fiqh scholars on contractual rules governing financial transactions. For instance, while some *fiqh* scholars consider the terms of a *Murabaha* or *Istisna* contract to be binding to the buyer, others argue that the buyer has the option to rescind from the contract even after making an order and paying the commitment fee. This raises Islamic financial institutions' exposure to counter-party risks arising from the unsettled nature of contracts, and may lead to potential litigation problems (Mulyawan, 2008). A related issue is the general confusion created by the heterogeneous interpretations of the fundamental rules resulting in differences in financial reporting, auditing and accounting treatments by Islamic financial institutions.

Moreover the lack of standardized contracts for Islamic financial instruments as well as the absence of effective litigation and dispute resolution systems creates a business environment risk. Poor enforceability of contractual agreements ultimately increases Islamic financial institutions' exposure to counter-party risks of default and delinquency. While the imposition of penalty in the case of late payment is not accepted according to the law, some Islamic financial institutions enforce the penalty as a deterrent mechanism and use the collected sums for charitable causes.

Compliance Risk. *Shari'ah* compliance of finance transactions in Islamic countries fuelled by sovereign-sponsored efforts of capital market development with successful issues creating firsts for different collateral types of Islamic finance that create further demand as asset supply widens and the investor base matures**.** As most depositors and investors use Islamic financial institutions due to their Islamic character, financial institutions must ensure that all their activities conform to the principles and values of Islam. This would require contacts and all necessary supporting documentations including the legal papers, forms and processes to be compliance. To be *Shari'ah* compliance, Islamic financial transactions can't involve interest, gambling, speculation, or prohibited industries

Another issue of compliance risk involveproduct development. As pointed out, the general trend in Islamic finance has been to come up with compliant alternatives to conventional products. While this approach can potentially make the industry susceptible to similar risks and crises, it also exposes the sector to compliance and reputation risks. Instead of using the current product-based method of developing compliant alternatives to conventional products, a functional approach to develop based products can be used to mitigate these risks.

The functional approach to product development would examine the needs that the financial sector satisfies and then come up with Islamic alternatives that can satisfy these needs. For example, one function of the financial sector is to provide financing to enterprises. The most common way to meet this need of enterprises in conventional finance is to provide interest bearing loans. Under the product approach taken by Islamic financial institutions, this would result in using a product like *Tawarruq* that mimics the conventional loan in substance. The functional approach, however, would assess the need of the entrepreneur. In the case of a loan, the need is not money itself but the necessity of the entrepreneur to buy certain input with it (Nanto, 2009). The functional approach to financing would require understanding the need of the enterprise and then devising appropriate modes of financing (like *Istisna*, *Murabaha* and *Ijarah*) that appropriately satisfy the need. Similarly, another function of financial institutions is to minimize risks. In conventional finance, derivatives are widely used as hedging instruments. If the current compliant product approach is taken in Islamic finance, then one would try to develop Islamic forward, Islamic swap, etc. As conventional derivatives do not comply with principles, this may involve using financial engineering to come up with stratagems/ ruses to circumvent the prohibitions. Under the functional approach, however, the need of minimizing risks can be accomplished by using other means. For example, Al-Suwailem (2006) suggests using a cooperative technique of hedging currency risks that does not employ any derivatives.

IV. INNOVATION IN OPERATIONAL RISK MANAGEMENT

Many Islamic and traditional financial institutions are reviewing their risk management functions and models. Executive directors, Supervisory Board members, and boards of directors, are more actively engaged in the operational risk management decision-making process than ever before. The regulatory coordination and harmonization of standards and fatwa is inevitable and market and practice synergy is an aspiration of all stakeholders.

Enable operational risk management model in developing point of views on Islamic finance risk intelligence. Needless to say, the overall issues Islamic financial institutions and risk executives were structured around namely governance, process, people, and technology.

Governance: The governance capability focuses on the structure and organization of the risk management function (even if no risk manager position formally exists) in order to make risk-intelligent decisions and execute those decisions in a timely and effective manner. A company needs to define roles and responsibilities of the board and its committees, management, internal audit and risk management functions with respect to risk management. Risk management policies such as risk appetite, tolerance and delegation of authority need to be formally documented and communicated.

Process: The process capability focuses on the process in place to execute risk management. This includes core operational and infrastructure business processes necessary to run the risk management in an efficient manner to create and protect value.

Risk management steps and process in outer look, seems to be very simple and easy, but in reality it is the resultant of a high complex and intricate process. Risk management is often associated with risk identification, measurement, monitoring and controlling, but all these four steps cannot be effectively exercised unless the corporate governance issues and internal control tasks are performed well.

Within the model risk management we can divide to the three layers. This threefold model firstly has explained the most outer layer, where institutional development was emphasized. In the second layer internal control is contributing valuable part in risk management process and in the last layer risk management process itself has been highlighted. The model suggests that all policies, procedures, corporate governance and internal control are working in a single direction to manage risks in Islamic financial institution. The above mentioned layers are implemented on each step of risk management process. Accordingly risk management process has been divided into 4 steps, which are risk identification, risk measurement, risk monitoring and controlling.

Thus the model of risk management and regulatory from Satar (2010) work concludes the entire risk management is interdependent with each other. It has been explained that risk management process three layers. These all the elements are interdependent. One layer cannot be complete without proper supervision and control of other factors.

People: The people capability focuses on having the right number of people with the appropriate training and awareness to execute the risk management process. This includes trained people at all levels and a companywide risk awareness culture.

- Qualified Human Resources

  According to an IMF (International Monetary Fund) survey, the shortage of human capital with expertise in Islamic financial institution is deemed as part of the cause of the decline in the profitability of Islamic banks during the recent global economic crisis of 2007-2008. The need for more qualified staff is frequently highlighted as being one of the major reasons that Islamic financial institution has not developed any further or any faster. As noted, there are now a large number of courses and qualifications available. It is increasingly possible for institutions to send employee to these courses and are also fund available to pay for students to study for higher degrees.

While there will probably always be some who become better known and whose opinion in most often sought, there needs to be a deeper pool of names. However, the skill required can only be obtained after many years of study in law, Islamic finance, law and finance. This can be daunting process. Islamic financial institutions will continue to need people who can monitor compliance in practice and ensure that there is a working system of governance in the institutions such as *Shari'ah* Supervisory Board.

The *Shari'ah* Supervisory Board is an independent body of specialised jurists in *fiqh al-muamalat* (Islamic commercial jurisprudence). However, the Board may include a member other than those specialised in *fiqh al-muamalat*, but who should be an expert in the field of Islamic financial institutions and with the duty of directing, reviewing and supervising the activities of the Islamic financial institutions. The rulings of the *Shari'ah* Supervisory Board are binding on the Islamic financial institutions.

The principal objectives of the *Shari'ah* Supervisory Board are to guide Islamic financial institutions in the setting of policies and regulations according to *Shari'ah* in approving their financial transactions from the legal side and in reviewing their contracts for future transactions according to Islamic law. Provisions governing the duties and objectives of the *Shari'ah* Supervisory Board at the respective Islamic financial institution can be found in the articles of association, statutory laws, or central financial institutions guidelines.

Furthermore to having the necessary professional competence, and understanding the applicable laws, rules and regulations of any government, regulatory authority, licensing agency or self-regulating professional organisation, Islamic financial institutions must ensure that the persons entrusted to deal on behalf of the Islamic financial institutions are equipped with an appropriate level of knowledge of the *Shari`ah* compliant characteristics of the financial products and services offered by the institution. Having staff with the necessary capabilities is key to avoiding excessive levels of operational risk in banking, and as such is a matter that falls under the supervisory review process.

To solve the problem of lack of human resources, it is recommended that the government could provide incentives for the establishment of formal and informal institutions which provide education in Islamic financial institution; Islamic scholar and academic actively write and publish text books on Islamic economics, banking and finance.

The lack of quality human resources in Islamic financial institutions is being identified as one of the biggest hurdles in the advancement of Islamic banking. In addition the misconceptions and confusions pertaining to the principles and practices of Islamic banking will continue to persist. The public will see no difference between the conventional banks and Islamic financial institution and assume that interest-based activities still persist in the Islamic financial institution. As a result it would create confusion among the general public and affect the public trust.

Technology: The technology capability focuses on IT systems used to analyze and communicate risk information throughout the organization as well as to enable risk-intelligent decision-making in a timely manner.

- Management Information System

Specific technological ability is important for Islamic financial institutions as much of the existing technology is the result of ‘tweaking’ of conventional technology. Genuine effort is needed with the combination of effort from *Shari’ah* scholars, market practitioners and academics to ensure a genuine technological product. While this focus is important, Islamic Financial Institutions also need to have in place a system for measuring quality of the various risks.

The effectiveness of risk measurement in financial institutions depends on efficient Management Information System, computerization and networking of the branch activities. The data warehousing solution should effectively interface with the transaction systems like core financial institutions solution and risk systems to collate data. An objective and reliable data base has to be built up for which Islamic Financial Institutions has to analyse its own past performance data relating to loan defaults, trading losses, operational losses and come out with bench marks so as to prepare themselves for the future risk management activities

V. CONCLUSION

The effective risk management of a developing financial industry is critical to ensure its future survival and profitability. Increasing innovation is becoming the norm for the Islamic financial institutions. There is a need to innovate and practice new ideas based on Islamic foundation and at the same time that are in harmony with the demands of modern markets. The need to further develop financial products and services in compliance with Islamic is essential to the survival and growth of the Islamic financial institution. To compete, Islamic financial institutions must continually improve their performance by innovating products and processes, and improve quality.

The analysis in this paper highlights several challenges faced by Islamic financial institutions
One thing is certain – the traditional operations and management of Islamic Finance will need to change. Islamic financial institution around the globe will not only need to deal with market risk management but will also need effective operational risk management. Operational risk management requires a skilled workforce in Islamic Finance to enable gain public trust. Responding to these new realities may require effective risk governance. Islamic financial institution Boards, Supervisory Boards and executives have an important role to play in providing proactive oversight of risk management and risk strategy.

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