KINGDOM OF SAUDI ARABIA
Ministry of Higher Education
KING ABDULAZIZ UNIVERSITY
Islamic Economics Research Centre
http://islamiccenter.kaau.edu.sa

Rating of Islamic Financial Institutions

Some Methodological Suggestions

Dr. Mohammed Obaidullah

1426/2005

Scientific Publishing Centre
King Abdulaziz University
Jeddah, Saudi Arabia

KINGDOM OF SAUDI ARABIA
Ministry of Higher Education
KING ABDULAZIZ UNIVERSITY
Islamic Economics Research Centre
http://islamiccenter.kaau.edu.sa

Rating of Islamic Financial Institutions

Some Methodological Suggestions

Dr. Mohammed Obaidullah

1426/2005

Scientific Publishing Centre
King Abdulaziz University
P.O. Box 80200, Jeddah 21589
Saudi Arabia

This study is based on a research project, *A Study on Developing a Transparent Rating Methodology for Islamic Banks and Islamic Financial Instruments,* generously funded by the Institute of Research and Consultation, King Abdulaziz University. The help and support extended by the Institute is being gratefully acknowledged.

PREFACE

This is a study on developing a transparent and appropriate methodology for rating of Islamic financial institutions. While Islamic financial institutions are currently being rated by the top international rating agencies, such as, Moodys and Capital Intelligence among others, the rating methodology is not different from what is followed in case of conventional banks and financial institutions. Arguably, the business of Islamic banking and finance is different. It is strongly rooted in Islamic values and ethics.

The present study undertakes a through examination of the rating methodology employed by the international rating agencies for conventional financial institutions for rating of financial performance. It finds that these methods may be suitably modified in the light of the special risk characteristics of Islamic financial institutions to rate their financial performance.

The focus of the present study is however, on rating of ethical performance of the Islamic financial institutions. It examines the need for such rating and the factors that should be taken into account in any process of ethical or Islamic value rating. A comprehensive survey of researchers, scholars, bankers and finance professionals is undertaken in order to assess the relative importance of criteria that may be employed in the rating of ethical performance of Islamic financial institutions. A simplified model of Islamic value rating is then presented. The need for a new concept called Islamic value accounting, in lines similar to social and ethical accounting is highlighted. It is hoped that the ideas presented would spur further research in this very useful area.

I am much beholden to Dr. Muhammad Najeeb Ghazali Khayat, Director and to all my colleagues at the Islamic Economics Research Centre for being a constant source of encouragement in this endeavor.

I am extremely thankful to the reviewers of this project report at various stages of preparation. Many of the good ideas are theirs; all of the remaining errors are mine. I am grateful too, to my co-researchers Dr. Ahmed Saied Bamakhramah and Dr. Abdulazim Islahi who have provided me with invaluable feedback and a wealth of suggestions for improvement. I would like to put on record my special thanks and appreciation for all the brothers who were part of the research team and who helped me collect and analyze the data. I am particularly thankful to Br. Syed Anwer Mahmood of the Islamic Economics Research Centre for producing the manuscript in camera-ready format.

Mohammed Obaidullah
June 2005

Contents

		Page No.
1.	Introduction	1
2.	Motivation and Methodology	3
	2.1 Objectives of the study	4
	2.1 Methods of study	5
3.	Findings and Discussion	7
	3.1 The “uniqueness” of Islamic financial institutions	7
	3.2 Conceptual framework of an Islamic financial institution	11
	3.3 Islamic financial products and services	13
	3.4 Survey of existing rating methodology	14
	3.5 Composite rating for Islamic financial institutions	17
	3.5.1 Unique feature of risk absorption	17
	3.5.2 Debt rating	18
	3.5.3 Management quality rating	21
	3.6 Empirical research on rating	27
	3.6.1 Review of research	27
	3.6.2 Lessons from research	30
	3.7 Islamic Value Rating (IVR)	31
	3.7.1 Survey findings	32
	3.7.2 The model	36
	3.7.3 Need for Islamic Value Accounting (IVA)	37
4	Summary and Conclusion	40
5	Notes and References	43
	Annexure I: Rating Agencies Across the Globe	46

List of Tables

Table No.		Page No.
1	Survey Results on Components of VMG Statements of Islamic FI	9
2	Range of Islamic Financial Products and Services	15
3	Empirical Studies Cited in the Review	28
4	Survey Results on Need for Islamic Value Rating	33
5	Relative Significance of Islamic Value Concerns	35

1. INTRODUCTION

A rating is an opinion. From a practical viewpoint, a rating is a comparison, with established benchmarks and with other rated institutions. The issue of devising a rating methodology for Islamic financial institutions poses major challenges for the analyst.

Some recent studies have attempted to understand the nature of Islamic banking and finance and sought to explain why it needs a different rating methodology. As Faheem Ahmad highlighting the rating scheme of DCR-VIS in Pakistan[1] writes, "the very nature of Islamic banking transactions is different from conventional system. Risk sharing, treatment of funds under management, nature of deposits and the profit sharing mechanism are core basic differences".

Capital Intelligence (CI) is the first international rating agency to start assigning ratings to Islamic financial institutions. However, one notes a similar lack of transparency and absence of an accepted solution as far as the question of a separate rating methodology for Islamic financial institutions is concerned. As Darren Stubing notes, "at this point in time, we believe that conventional rating methodology can be applied to Islamic banks as it is applied to non-Islamic banks. The issues addressed in arriving at a rating are applicable to both systems but the degree of importance will vary between Islamic banks and conventional banks. From CI's experience, the focus currently varies from one Islamic bank to another. Islamic banks do possess special characteristics and profiles, but we believe that these are recognized in our overall analysis and in arriving at the rating, which indicates our view on the soundness of the institution. Some characteristics make an Islamic institution less riskier while others increase the risk profile." Interestingly, his paper goes great length in highlighting the special nature of Islamic banks. As he asserts, "the Islamic banking framework, whereby there is an absence of guarantee and the rate of return on deposits, has, in turn, implications for traditional rating definitions and the institution's overall capacity for timely repayment". It follows from this that Islamic banks cannot be "credit-rated" in a manner similar to their conventional counterparts. Does it imply that Islamic banks should be rated in lines similar to investment and asset management companies? "In an Islamic bank, neither the capital value nor the return on investment deposits is guaranteed. The Islamic bank pools depositors' funds and provides a vehicle for investment. As such it acts, at least in part, as an investment manager and characteristics are shared with those of investment or fund companies. However, there are differences. Investment companies sell their capital to the public, while Islamic banks accept deposits from the public. As

such, shareholders of an investment company own part of the company's equity and are entitled to certain rights. Depositors cannot influence the investment policy of the bank and can withdraw their funds at any time.'[2]

According to Andrew Beikos, "in principle activities of an Islamic bank can be more closely related to that of a fund manager where deposits which are collected from the general public are invested into a variety of business ventures and projects on a profit and loss sharing basis, without recourse to the bank itself. In this respect, the bank acts as a fund manager off the balance sheet. As a fund manager, such institution should be evaluated based on criteria, which are quite different from evaluating the risk that an institution may default on its debt. Assessing trustee (or fiduciary) risk evaluates the risk for an investor in entrusting his money to a third party for management purposes. Therefore, such evaluation should take into consideration to what extent the structure, organization and systems of a particular fund manager expose investing clients to risk. In plain language a rating assigned to such institution would reflect its ability and capacity to dispense its duties as safe keeper, administrator and custodian of investors' funds.'[3]

The task of rating Islamic banks and more generally, the Islamic financial institutions is therefore complex and is less than satisfactory, given the state-of-the-art of research in this area. Islamic financial institutions combine specific characteristics of conventional banks, custodian banks, investment and asset management companies and other service providers. Hence, a search for an appropriate methodology would necessarily begin with an in-depth understanding of methodologies employed for the above types of organizations.

In credit rating of conventional banks, the analyst studies individual institutions in a particular market, talks to the banks themselves, to regulators, supervisors and commentators, and eventually forms a picture in his mind of roughly where a bank fits in at the market and what its prospects are. Whatever system of rating is then used, the analysts will attempt to assign rating to each bank, which reflects the bank's intrinsic character, strengths and weaknesses, and its position relative to other rated participants in the market. In practice, the analyst takes into account both factual, quantitative factors such as amounts of capital, level of non-performing loans etc., and qualitative factors such as shareholders' support, strength and ability of senior management, and forms a judgment, which is expressed in the rating. The credit rating approach described above can partly be applied to Islamic financial institutions. However, because of their uniqueness, a number of challenges arise when evaluating their risk.

2. MOTIVATION AND METHODOLOGY

A prospective fund-seeker knows more than its potential fund-providers about the financial soundness of the project being financed or its own creditworthiness, and thus is in a position to disclose information selectively in a way that would favorably bias an outsider's opinion. Because potential fund-providers know that a fund-seeker has an incentive to provide a distorted picture of its prospects, it can be a challenge, even for a low-risk fund-seeker, to convince fund-providers that it would be unlikely to default. Without some means for reliably transmitting relevant information, there can be a market failure, in the sense that worthy investment projects fail to be financed. Credit rating agencies serve to reduce the extent to which profitable opportunities are left unfunded. The importance of credit rating was underscored in several papers presented at recent seminars organized by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) on supervision of Islamic banks and credit rating.[4] There seems to be a general consensus on the need for a rating methodology for Islamic financial institutions. As Faheem Ahmad notes, the fundamental importance of accounting standards and making ratings public is also recognized by the Supreme Court of Pakistan. To successfully implement the Islamic financial system, the rating of listed companies and mutual funds has been made mandatory in the famous "Judgment on *Riba*". Ratings, in the opinion of Honorable Judges, will help eliminate *gharar* from transactions and investors/shareholder will be more aware about their investment risk.[5]

From the literature survey in the preceding section it is clear that the issue of suitability of conventional methodologies for the purpose of rating Islamic financial institutions needs serious examination. Since it appears that such methodologies after a process of "conversion" or transformation may be suitable for rating of financial performance of Islamic financial institutions, it would be pertinent to examine this possibility rather than trying to "reinvent the wheel".

Rating the ethical performance of Islamic financial institutions may be a "unique" and distinct necessity. In order to develop an appropriate rating methodology for this purpose, one needs to start from a zero-base as conventional financial literature does not recognize Islamic values having any role in financial markets. There is a need to address the fundamental issues here relating to need, criteria and methodology.

2.1 Objectives of the Study

The study has two major objectives.

- To identify or develop a methodology suitable for rating of financial performance of Islamic financial institutions; and
- To develop a methodology suitable for rating of ethical performance of Islamic financial institutions.

In order to achieve these two major objectives, the following sub-objectives were formulated.

- To examine the methodologies devised by leading international agencies for rating of conventional banks, asset management and securities companies, providers of various services, such as, custodial and safe-keeping services, and assess their suitability for rating their Islamic counterparts;
- To examine various credit-risk-classification and credit-scoring schemes found in academic financial research literature to identify suitable quantitative approaches to rating;
- To examine the need, delineate norms and criteria for possible consideration in an Islamic Value Rating (IVR) exercise, based on a survey of researchers, scholars, bankers and finance professionals working in the field of Islamic finance; and
- To develop a model for Islamic Value Rating and examine its practical requirements.

In order to put the above objectives and sub-objectives in right context, it was felt necessary to examine the nature of Islamic financial institutions; the vision-mission-goal (V-M-G) of the Islamic financial institutions, the products, services, activities and operations that Islamic financial institutions offer or engage in, the type of risk factors they are exposed to or involve. In the light of these, the most important question for the study was addressed: what is the nature of rating appropriate for an Islamic financial institution? Is it credit rating? Is it rating for overall risks that include credit as well as, market and operational risks? Is it rating of managerial efficiency? Is it rating of *Shariah* compatibility and adherence to Islamic values? Is it possible and desirable to combine some or all of the above factors in one composite rating?

2.2 Methods of Study

The study was conducted in three parts. Part I and III are based on an exhaustive survey of bankers, scholars, researchers and others interested in the field of Islamic finance. The questionnaires were mailed to all the 1917 members of IBF Net: The Islamic Business and Finance Network.[5] Part I of the study involved an empirical examination of Vision-Mission-Goal statements of Islamic financial institutions to identify and bring together major components of such statements. The researchers sought information from 165 Islamic financial institutions from across the globe on their Vision-Mission-Goal Statements. Though the response rate was poor at about 15 percent, additional information was obtained through web-search of their sites on the Internet. Information on products and services were entirely collected from the Internet as almost all websites of Islamic financial institutions provided such information in detail. The components were then subjected to an opinion-survey on their desirability. Respondents were asked to assign a score to each specific component on a scale of 1-5 with a score of 1 implying totally irrelevant; a score of 2 implying highly irrelevant; a score of 3 implying marginally relevant; a score of 4 implying highly relevant and a score of 5 implying extremely significant and essential. 195 respondents replied to the questionnaires reflecting a response rate of slightly above 10 percent.

Part II of the study involved a review of products and services offered by Islamic financial institutions in order to highlight their unique characteristics. Then an extensive review and in-depth examination was undertaken of existing rating methodologies employed by the top international rating agencies for credit-rating of conventional banks, performance-rating of custodian-banks, investment and asset-management companies. This involved: (i) obtaining necessary documents that highlight the rating methodologies, (ii) delineating the common practices, and (iii) examining their relevance in the light of "unique" risk factors with Islamic financial operations. The purpose was to identify which of the practices and procedures are relevant to the Islamic banking products and services with or without modification and adaptation.

This part of the study also involved an exhaustive survey of academic studies in the field of credit rating in general. These studies invariably used quantitative tools, statistical techniques and addressed a wide variety of research questions relating to rating. The review undertaken in this section enabled the researchers to assess the suitability or otherwise of a quantitative approach to rating for Islamic financial institutions, as compared to a judgment-based approach.

Part III of the study involved a survey undertaken to examine the need, delineate norms and criteria for possible consideration in an Islamic Value Rating

(IVR) exercise. As mentioned above, questionnaires were sent to 1917 members of the Islamic Business and Finance Network comprising researchers, scholars, bankers and finance professionals working in the field of Islamic finance. One section of the questionnaire contained statements highlighting the need for Islamic Value Rating and the respondents were asked whether they strongly agree/ agree/ undecided/ disagree/ strongly disagree on statements that essentially highlighted the need for Islamic Value Rating. Another section of the questionnaire enumerated a list of Islamic Value Concerns that may be used as criteria for rating the ethical performance of Islamic financial institutions and required the respondents to assign a score in the range 1-10 to each one of the concerns, which in their view reflected the relative importance of the given concern from the standpoint of rating. Respondents were classified into four categories of (i) economists and researchers (ii) bankers and finance professionals (iii) religious scholars and (iv) others in order to examine if their professional exposure in any way influenced their views. Out of the 195 respondents, 74 fall into the first category, 63 fall into the second category, 39 fall into the third category and 19 fall into the fourth category.

3. FINDINGS AND DISCUSSION

3.1 The "Uniqueness" of Islamic Financial Institutions

The business of Islamic banking and finance is different. While Islamic financial institutions are more like "universal banks" that undertake various kinds of fund-based and fee-based operations, the characteristic that sets them apart is the need for *Shariah* compliance and promotion of Islamic values. The vision-mission statements of these organizations are supposed to clearly reflect this distinct character.

We undertook an empirical examination of Vision-Mission-Goal statements of Islamic financial institutions to identify and bring together major components of such statements. The researchers sought information from 165 Islamic banks and financial institutions fom across the globe on their Vision- Mission-Goal statements. Though the response rate was poor at about 15 percent, additional information was obtained through web-search of their sites on the Internet. Information on products and services were entirely collected from the Internet as almost all Islamic financial institutions websites provided such information in detail.

The following components were identified.

1. become the premier universal Islamic financial institution;
2. operate in accordance with *Shariah* principles;
3. maximize investors' and shareholders' returns;
4. offer a chance to employees to contribute and to advance on merit;
5. aim at 100% customer satisfaction by delivering quality products and services where and when the customer needs these;
6. use creativity and technology to differentiate services and to develop and deliver our products and services to customers;
7. establish Islamic banking as banking of first choice;
8. facilitate the implementation of an equitable economic system, providing a strong foundation for establishing a fair and just society for mankind;
9. develop an organizational culture based on learning, fairness, respect for individual enterprise and performance;
10. attain viability and sufficient level of profitability to sustain growth;

11. develop and foster a competent and innovative management imbibed with high standards of integrity and Islamic banking professionalism;
12. develop a motivated workforce inculcated with appropriate work ethics fully committed to the Bank;
13. constantly strive to protect its shareholders' interest;
14. be always conscious of responsibilities and duties as an Islamic corporate citizen;
15. aim to increase brotherhood and solidarity and reduces the reliance on debt finance;
16. establish a presence in all the key markets of the region;
17. remain at the forefront of the fast-growing Islamic capital market by providing our clients with superior financial and investment solutions;
18. focus on activities where we can add value by tapping our distinctive core competencies;
19. identify and realize prospective business opportunities in a proactive, creative and innovative manner;
20. work with shareholders, clients, business allies and staff in a partnership of mutual respect and trust;
21. uphold the principles of honesty, integrity and partnership;
22. preserve the confidentiality of all relationships;
23. continually exceed the expectations of clients; and
24. manage change adapting a creative approach in all we do.

In addition to the above twenty-four components we added eight more components that we felt are possible candidates. Some of these are supposed to address the very rationale underlying the Islamic banking movement and the creation of these distinct institutions.

1. seek to eliminate poverty and backwardness of Muslim societies;
2. ensure capital injection into developmental projects in Muslim countries;
3. prevent capital flight to developed markets and economies in the West;
4. free the financial market of *riba* (interest) and speculation;
5. seek environmental and ecological balance through investment decisions;
6. uphold human rights, especially women's rights in all our activities;
7. discourage manufacture of harmful objects, such as, arms and ammunitions; and
8. discourage manufacture of harmful objects, such as, tobacco, pornography, non-*halal* products.

All these components were then subjected to an opinion-survey on their significance. Respondents were asked to assign a score to each specific component on a scale of 1-5 with a score of 1 implying totally irrelevant; a score of 2 implying highly irrelevant; a score of 3 implying marginally relevant; a score of 4 implying highly relevant and a score of 5 implying extremely significant and essential. The results are presented in table 1.

An analysis of the above statements reveals that *Shariah* compatibility and adherence to Islamic values is entrenched in the V-M-G statements of Islamic financial institutions with explicit reference to Islam and the values they promote. While shareholder wealth maximization is recognized as a legitimate objective, it is not the only one. The statements explicitly recognize the interests of other stakeholders besides shareholders, such as, employees, customers and business allies. More importantly, they talk about duties and responsibilities as an Islamic corporate citizen, services to the Muslim community and the like. There is a frequent mention of bounds of *Shariah*, adherence to Islamic values and ethics, such as, trust, mutual respect and partnership.

Table 1: Survey Results on Components of VMG Statements of Islamic FI

STATEMENT	AVERAGE SCORE			
	A	B	C	D
become the premier universal Islamic financial institution	3.3	3.7	3	3.5
operate in accordance with *Shariah* principles	4.6	4.7	5	4.8
seek to eliminate poverty and backwardness of Muslim societies	3.6	3.4	4	3.9
ensure capital injection and developmental projects in Muslim countries	3.3	3.6	4.5	4
prevent capital flight to developed markets and economies in the West	2.9	3.7	4	3.7
free the financial market of *riba* (interest) and speculation	4.1	4.4	5	4.6
maximize investors and shareholders' returns	3.5	3.9	4.5	4.1
offer a chance to employees to contribute and to advance on merits	3.2	3.8	4.5	4
aim at 100% customer satisfaction by delivering quality products and services where and when the customer needs these	3.5	3.6	5	4.3
use creativity and technology to differentiate services and to develop and deliver our products and services to customers.	4.3	3.7	4	4.1
establish Islamic banking as banking of first choice	4	4.5	4.5	4.5
facilitate the implementation of an equitable economic system, providing a strong foundation for establishing a fair and just society for mankind	3.9	4.1	4.5	4.1
develop an organizational culture based on learning, fairness, respect for individual enterprise and performance.	3.8	3.7	4	3.8
attain viability and sufficient level of profitability to sustain growth;	4.1	3.9	4	3.9

Cont'd

STATEMENT	AVERAGE SCORE			
	A	B	C	D
develop and foster a competent and innovative management imbibed with high standards of integrity and Islamic banking professionalism;	4.6	4.2	4	4.3
develop a motivated workforce inculcated with appropriate work ethics fully committed to the Bank	4.0	3.5	4	3.9
constantly strive to protect its shareholders' interest;	3.7	3.6	3.5	3.6
be always conscious of responsibilities and duties as an Islamic corporate citizen.	4	3.7	4.5	4.2
aim to increase brotherhood and solidarity and reduces the reliance on debt finance.	3.8	3.5	4.5	3.9
remain at the forefront of the fast-growing Islamic capital market by providing our clients with superior financial and investment solutions	4.4	3.8	4.5	4.3
focus on activities where we can add value by tapping our distinctive core competencies	4.1	3.5	4	3.9
identify and realize prospective business opportunities in a proactive, creative and innovative manner	3.9	3.7	4	4
work with shareholders, clients, business allies and staff in a partnership of mutual respect and trust.	4.2	3.8	4	3.9
uphold the principles of honesty, integrity and partnership	4.4	4.2	4.5	4.5
preserve the confidentiality of all relationships	4.1	3.7	4.5	3.8
continually exceed the expectations of clients	3.9	3.5	4	3.5
manage change and adapting a creative approach in all we do	3.8	3.5	4	3.4
seek environmental and ecological balance through investment decisions	3.3	3.5	4	3.3
seek environmental and ecological balance through investment decisions	3.3	3.5	4	3.3
uphold human rights, especially women's rights in all our activities	3.6	3.5	4.5	3.6
seek environmental and ecological balance through investment decisions	3.3	3.5	4	3.3
uphold human rights, especially women's rights in all our activities	3.6	3.5	4.5	3.6
discourage manufacture of harmful objects, such as, arms and ammunitions	3.3	3.4	2	2.8
discourage manufacture of harmful objects, such as, tobacco, pornography, non-*halal* products	4	3.9	2.5	3.2

Note:

1. Category: A. Economists and Researchers; B. Bankers and Finance Professionals; C. Religious Scholars; and D. Total
2. Category D shows the results of total respondents that include "others" category as well. Results for "others" category is not separately reported as it could not be subjected to any meaningful interpretation.

The survey results reflecting the opinions of various categories of participants show that all the participants agree that VMG statements of Islamic financial institutions must include the following. They must aim to (i) operate in accordance with *Shariah* principles (ii) free the financial market of *riba* (interest) and speculation (iii) establish Islamic banking as banking of first choice (iv) develop and foster a competent and innovative management imbibed with high standards of integrity and professionalism and finally (v) uphold the principles of honesty, integrity and partnership. These components were rated above 4 (80%) by all the four categories on average. The results are quite revealing in the sense that all the highly preferred components related to Islamic values and most of these are conspicuous by their absence from the actual VMG of Islamic financial institutions.

The components that were rated above 4 (80%) by at least two of the four categories are: (i) use creativity and technology to differentiate services and to develop and deliver our products and services to customers; (ii) facilitate the implementation of an equitable economic system, providing a strong foundation for establishing a fair and just society for mankind; (iii) develop a motivated workforce inculcated with appropriate work ethics fully committed to the Bank; (iv) be always conscious of responsibilities and duties as an Islamic corporate citizen; (v) focus on activities where we can add value by tapping our distinctive core competencies; (vi) work with shareholders, clients, business allies and staff in a partnership of mutual respect and trust; (vii) preserve the confidentiality of all relationships and (viii) remain at the forefront of the fast-growing Islamic capital market by providing clients with superior financial and investment solutions. A surprising revelation from the survey relates to the text-book goal of protecting and maximizing shareholder interests. None of the categories were observed to rate "constantly strive to protect its shareholders' interest" as an essential component of the VMG statement. The goal of "shareholder wealth maximization" was also assigned a score of less than 4 out of 5 by both the groups of researchers and bankers and financial professionals.

We therefore, feel that the traditional risk-return framework of maximizing shareholder returns while minimizing risk is grossly inadequate for Islamic financial institutions. And a rating that merely focuses on the above two aspects is inadequate too.

3.2 Conceptual Framework of an Islamic Financial Institution

An Islamic financial institution is an organization that performs all the typical functions of financial intermediation while retaining its Islamic character. It undertakes both (i) mobilization of funds from savings-surplus economic units

(usually household sector) through an array of financial assets (deposit products) and (ii) canalization of funds into profitable projects floated and operated by savings-deficit economic units (usually corporate and government sector). While conventional banking uses the interest rate mechanism to perform its task of financial intermediation, Islamic banking relies on profit/loss sharing for purposes of financial intermediation. Several models have been suggested for the structure of an Islamic financial institution.

The first model is based on *mudaraba* and is commonly referred to as the "*two-tier mudaraba*" model. The basic concept of this model as originally developed by Khan (1986) is that both funds mobilization and funds utilization are on the basis of profit sharing among the investor (depositor), the bank and the entrepreneur. The first tier *mudaraba* contract is between the investor and the bank, where investors act as suppliers of funds to be invested by the bank on their behalf as *mudarib*; the investors share in the profits earned by the bank's business related to the investors' investments. Funds are placed with the bank in an investment account. The liabilities and equity side of the bank's balance sheet thus shows the deposits accepted on a *mudaraba* basis. Such profit-sharing investment deposits are not liabilities (the capital is not guaranteed and they incur losses if the bank does so), but are a form of limited-term, non-voting equity. The second tier represents the *mudaraba* contract between the bank as supplier of funds and the entrepreneurs who are seeking funds and agree to share profits with the bank according to a certain percentage stipulated in the contract. In this model, in addition to investment deposits, banks would accept demand deposits that yield no returns and are repayable on demand at par value and are treated as liabilities. A distinguishing feature of the "two-tier" model is that, by design, the assets and liabilities sides of a bank's balance sheet are fully integrated and thus minimize the need for active asset/liability management, which provides stability against economic shocks. Early claims of superiority of Islamic banking over conventional banking were based on this model propounded by Khan (1986) that demonstrated that the former are far more robust than the latter in absorbing external shocks.[7]

When the above theoretical model was put into practice, the early models that emerged envisaged three main sources of funds and four principal uses of these funds. The three sources of funds are: (i) the bank's share capital (ii) *mudaraba* deposits, and (iii) demand deposits. The four principal uses of these funds are (i) *mudaraba* financing (ii) financing on the basis of the principles of *musharaka* (iii) purchase of ordinary shares of companies and (iv) *qard al-hasanah*. Later models took cognizance of the fact that Islamic banks may need to branch into certain other activities to deploy their funds.

As things stand now, on the "liabilities" side of its balance sheet, the Islamic financial institution offers current, savings, investment and special investment accounts to depositors. Current accounts are demand accounts and are kept with the bank on custodial arrangements and are repayable in full on demand. Current accounts are based on the principle of *wadiah* (trust or safekeeping), and at times based on *qard-hasan* (deposits are treated as loans from depositors to Islamic financial institution). The major portion of an Islamic financial institution's financial liabilities would consist of investment accounts that are strictly not liabilities but a form of equity investment, generally based on the principle of *mudaraba.* An Islamic financial institution may offer special investment accounts linked to special investment opportunities identified by the Islamic financial institution. These opportunities would have specific size and maturity and result from the Islamic financial institution's participation in syndication, private equity, joint venture or a fund. The maturity and distribution of profits for special investment accounts are negotiated separately for each account, with the yield directly related to the success of the particular investment project.

The asset structure of an Islamic financial institution is usually more diversified. For short-term maturity, limited-risk investments, Islamic financial institutions have a choice of assets originating from trade related activities, and include *murabaha*, *bai muajjal*, or *bai salam.* In addition, an Islamic financial institution can provide short-term funds to its clients to meet their working capital needs. For the medium-term maturity investments, Islamic financial institutions may invest in *ijara* and *istisna* based assets. For longer-term maturity investments, Islamic financial institutions can engage into venture capital or private equity activities in the form of *musharaka.* We present an exhaustive list of products linked to liabilities and assets of an Islamic financial institution in the next section. It may be noted here that over the years debt-based products such as *bai-muajjal* and *ijara* have proved to be far more popular than equity or profit-loss-sharing based product like *musharaka* with Islamic financial institutions. In our own sample of 25 Islamic financial institutions, we observed that debt-based products account for over 85 -100 percent of assets while the share of equity-based product were quite insignificant.

3.3 Islamic Financial Products and Services

Islamic financial institutions offer a range of products and services that are supposed to meet the tests of *Shariah.* Below we provide an overview of the products and services and the underlying *Shariah*-nominate contracts. These contracts or *uqud* are extensively discussed in literature on Islamic law (*fiqh*) and one may find their finer details in any standard classical text of *fiqh*. There are exchange-based contracts, such as, *murabaha, bai-bithaman-ajil, ijara, salam,*

istisna, istijrar that create debt and hence, underlie debt-based financing products and securities. There are participatory contracts, such as, *mudaraba* and *musharaka* that underlie equity-based financing contracts and securities. These also underlie some deposit products used for mobilizing funds from the Savings-Surplus-Units (SSUs) in the economy. There are contracts, such as, *wadiah, amana, qard* that underlie deposit products. There are contracts, such as, *wakalah* and *ujr* that underlie many fee-based products. A comprehensive list of such products and underlying contracts is presented in Table 2.

Islamic commercial banks play the role of intermediaries in the financial system. They buy funds by offering a variety of deposit products – *wadiah* and/or *qard*-based current account deposits, *mudaraba*-based savings account and investment account deposits and the like. They sell funds through a variety of financing products – equity based and debt-based. Islamic equity-based financing products comprise trustee partnership (*mudaraba*) facility, joint venture (*musharaka*) facility, declining partnership (*musharaka*) facility and the like. Islamic debt-based financing products comprise cost-plus sale (*murabaha*) with deferred payment (*bai-bithaman-ajil*) facility, leasing (*ijara*) facility, deferred delivery sale (*salam*) facility, manufacture-sale (*istisna*) facility, recurring sale (*istijrar*) facility, benevolent loan (*qard*) facility and the like. Islamic commercial banks have also been offering a few highly controversial and unacceptable financing products, such as, repurchase (*bai-al-einah*), bill discounting (*bai-al-dayn*), tripartite resale (*tawarruq*), short-term cash loan & credit card based on *tawarruq* and *bai-al-einah.* Islamic commercial banks also provide a range of fee-based services, such as, opening of letter of credit (*wakala) and* letter of guarantee (*kafala*).

Islamic investment banks play the role of facilitators where the flow of funds is direct. They help the Savings-Deficit-Units (SDUs) in the economy create and offer various Islamic securities called *sukuk* to the SSUs. These *sukuk* are based on and hence named after the underlying *Shariah*-nominate contracts. Islamic debt securities comprise *murabaha sukuk*, *ijara sukuk, salam sukum* and *istisna sukuk*. Islamic equity securities comprise *mudaraba* and *musharaka* certificates.

3.4 Survey of Existing Rating Methodology

From the above, it is clear that Islamic financial institutions are "unique" organizations with "unique" risk factors. However, these are also essentially into the business of banking, finance, investment, and seek to provide a range of services similar to their conventional counterparts – more like the universal banks. It is therefore, desirable to begin with a survey of how conventional financial

Table 2: Range of Islamic Financial Products and Services

Products/Services	Underlying Contract(s)
• **Deposit Services**	
Current Deposit	*Wadiah Wad Dhamana / Qard Hasan*
Savings Deposit	*Wadiah Wad Dhamana / Mudaraba*
General Investment deposit	*Mudaraba*
Special Investment deposit	*Mudaraba*
• **Retail / Consumer Banking**	
Housing & Property Finance	*BBA / Ijara wa Iktina /Diminishing Musharaka*
Hire Purchase	*Ijara Thumma Al-Bai*
Share Financing	*BBA / Mudaraba / Musharaka*
Working Capital Financing	*Murabahah/ Bai Al-Einah/ Tawarruq*
Credit Card	*Bai Al-Einah/ Tawarruq*
Charge Card	*Qard Hasan*
• **Corporate Banking/ Trade Finance**	
Project Financing	*Mudaraba / Musharaka / BBA / Istisna / Ijara*
Letter of Credit	*Musharaka/ Wakala/ Murabaha*
Venture Capital	*Diminishing Mudaraba/ Musharaka*
Financing Syndication	*Musharaka + Murabaha/ Istisna / Ijara*
Revolving Financing	*Bai Al-Einah*
Short-term Cash Advance	*Bai Al-Einah/ Tawarruq*
Working Capital Finance	*Murabaha/ Salam/ Istijrar*
Letter of Credit	*Murabaha*
Letter of Guarantee	*Kafala + Ujr*
Leasing	*Ijara*
Export/ Import Finance	*Musharaka/ Salam/ Murabaha*
Work-in-Progress, Construction Finance	*Istisna*
Bill Discounting	*Bai al-Dayn*
Underwriting, Advisory Services	*Ujr*
• **Treasury / Money Market Investment Products**	
Sell & buy-back agreements	*Bai al-Einah*
Islamic Bonds	*Mudaraba / Mushraka + BBA / Istisna / Ijara*
Government Investment Issues	*Qard Hasan/ Salam/ Mudaraba*
• **Other Products & Services**	
Stock-Broking Services	*Murabaha/ Wakala/ Joala*
Funds Transfer (Domestic & Foreign)	*Wakala/ Joala*
Safe-Keeping & Collection (Negotiable Instruments)	*Wakala/ Joala*
Factoring	*Wakala/ Joala/ Bai al-Dayn*
Administration of Property, Estates and Wills	*Wakala*
Hiring of Strong Boxes	*Amana/ Wakala*
Demand Draft, Traveller's Cheques	*Ujr/ Joala*
ATM Service, Standing Instruction, Telebanking	*Ujr*

* *Bai al-einah* and *bai al-dayn* are unacceptable according to most scholars.

institutions are rated. It is perhaps a better idea to make "necessary" modifications to the methodology instead of seeking to reinvent the wheel.

Though there are scores of rating agencies across the globe, (Annexure I provides a comprehensive list of such agencies and the type of their rating activities) three rating agencies are recognized worldwide: Standard & Poor's, Moody's Investor Service and Fitch Ratings. They essentially provide "credit rating" services and assign domestic and external ratings at the fund-seeker's request. Each of them is present in most of the countries and has a universal rating scale. Most of the rating agencies operate from the G-10 countries. Outside the G-10 countries, only several agencies are noteworthy, such as the Rating Agency Malaysia Berhad (RAM) in Malaysia. A new agency established exclusively for Islamic financial institutions in Bahrain called the International Islamic Rating Agency is yet to issue its first rating.

The three leading international rating agencies have established a universal and open methodology of drawing up the rating reports and an immaculate reputation. Because of that, assigned ratings have great meaning to investors. Reputation for rating agencies is very important because rating conclusion is subjective opinion of rating agency. Activities of rating agency are public and all the necessary information on rating decisions is available on the Internet. Among the many types of institutions and instruments rated, we find the following to be of relevance for Islamic financial institutions. We briefly discuss the rating methodologies for institutions – credit rating of commercial banks and investment companies followed by management quality ratings of asset management companies and service providers.

It must be noted that credit ratings provided by the agencies essentially seek to capture "credit risk" confronting various types of fund-seekers that include sovereign countries, manufacturing and service companies, banks, insurance companies, securities and investment companies and the like. On the other hand, the management quality ratings (MQRs), recently introduced by Moodys, provide institutional investors with an independent appraisal of custodian banks, asset management companies, and administrative service providers. The ratings assess the entity's organizational structure, risk management capabilities and operational controls, and provide an unbiased opinion on the organization's overall quality including management characteristics and operational practices.

MQRs, by their nature, are predominately qualitative assessments. Ratings are determined by service levels, organization strength, regulatory risk/compliance, and the overall control environment of the organization, and not by quantitatively defined levels of risk. All MQ ratings – for custodians as well as for asset management companies and administrative service providers — share some core features. MQRs do not address a company's ability to repay a fixed

financial obligation or satisfy contractual financial obligations. In this manner, MQRs are different from traditional debt ratings, which assess the ability of the issuer to fulfill its bond obligations with respect to principal and interest payments. However, together, they seem to be adequate to rate an Islamic financial institution.

3.5 Composite Rating for Islamic Financial Institutions

In this section we examine the relevant rating methodology employed by conventional rating agencies. We argue that a composite rating for Islamic financial institutions could be developed using the methods of analysis employed for debt rating and management quality rating in the light of special characteristics of Islamic banking.[8]

3.5.1 Unique feature of risk absorption

Islamic financial institutions are believed to be inherently less susceptible to instability than their conventional counterparts. This comparative advantage is rooted in the risk-sharing feature where financial institutions participate in the risks of their counter-parties, and investment depositors share the risks of the banking business. In the theoretical model, both shareholders and investment depositors absorb any negative shock to an Islamic bank's asset returns. While depositors in the conventional system have a fixed claim on the returns to the bank's assets as they are paid a predetermined interest rate in addition to their guaranteed principal irrespective of the bank's profitability, holders of profit-sharing investment accounts in the Islamic system share in the bank's profits and losses alongside the shareholders, and hence are exposed to the risk of losing all or part of their initial investment.

It must be recognized however that Islamic financial institutions face a kind of "withdrawal risk" that mainly results from the competitive pressures an Islamic financial institution faces from existing Islamic or conventional counterparts. An Islamic bank could be exposed to the risk of withdrawals by its depositors as a result of the lower rate of return they would receive compared to what its competitors pay.

Faced with this scenario Islamic financial institutions, operating in mixed systems, may pay their investment account holders a competitive "market" return regardless of their actual performance and profitability. As a result however, equity holders' returns are displaced, creating for them a commercial risk. The

Accounting and Auditing Standards for Islamic Financial Institutions (AAOIFI) takes note of the above in the following manner.[9]

> An Islamic bank is liable to find itself under commercial pressure to pay a rate of return to its Profit Sharing Investment Account (PSIA) holders which is sufficient to induce those investors to maintain their funds with bank, rather than withdrawing them and investing them else where. If this 'required' rate of return is higher than that which would be payable under the normal terms of the investment contract, the bank may be under pressure to forgo some of the share of profit which would normally have been attributed to its shareholders (e.g. part of the *Mudarib's* share). Failure to do this might result in a volume of withdrawals of funds by investors large enough to jeopardize the bank's solvency. Thus, part of the commercial risk attaching to the returns attributable to the PSIA is, in effect, transferred to the shareholders' funds. This is what has been termed 'displaced commercial risk'.

3.5.2 Debt rating

A key determinant in the rating process is to assign the probability that a bank will default on its fixed income obligations and to assess the potential severity of loss for investors. The following factors are considered in a conventional debt rating exercise – liquidity, asset and liability management, asset quality, earnings coverage & recurring earnings power, profitability and its measurement, capital structure, background information on the bank, regulation, auditors and corporate governance, executive management team and principal subsidiaries and other interests.[10] These factors are equally relevant for Islamic financial institutions too. However, Islamic banking possesses some unique characteristics with respect to some of these factors that are highlighted below.

3.5.2.1 Liquidity

Rating agencies view liquidity as a very important part of their analysis. They see a strong liquidity position as being a key factor regarding the ongoing viability of a bank - even if asset quality deterioration prevails, or earnings generation is disrupted, a bank with a strong liquidity profile should generally be able to survive. A bank with a fragile liquidity profile is considerably more susceptible to such problems. This is less of a problem area for Islamic financial institutions as compared with their conventional counterparts with less of borrowing. Much of the funds of Islamic financial institutions come through PLS investment accounts without any fixed obligation attached to them. Rather the problem for Islamic financial institutions has been excess liquidity due to shortage of *Shariah*-approved assets where such funds may be parked.

3.5.2.2 Asset and liability management

In the context of conventional financial institutions the analysis usually concentrates on the management of interest rate sensitivity, value at risk, the historic interest rate sensitivity trend, as well as interest rate sensitivity tolerances. The rater investigates the extent to which different economic scenarios will impact the different business lines of a bank. Such analysis is relevant for those Islamic financial institutions having a large proportion of their assets “tied” to benchmark rates in the conventional markets.

A distinguishing feature of the "two-tier" *theoretical* model of Islamic banking as discussed earlier is that, by design, the assets and liabilities sides of a bank's balance sheet are fully integrated and thus minimize the need for active asset/liability management. All the liabilities for such a bank are supposed to comprise *mudaraba*-based investment accounts whose nominal value is supposed to go down automatically in the event of loss and vice versa.

However, Islamic financial institutions have faced the criticism that when they do write down the value of assets, they do not in practice write down the value of deposits. This implies that losses on the asset side are absorbed by either other deposit holders or the equity holders. This practice raises a question on the degree of transparency and information disclosure they practice. It also raises the issue of the need to separate asset types to match them closely to liabilities either through fire-walling or segmentation. Further issues relating to asset-liability management are discussed below under the section on risk management.

3.5.2.3 Asset quality

For conventional financial institutions, measurement of asset quality essentially involves the bank's internal loan approval policies and procedures. Debt in case of Islamic bank would essentially be asset-backed. However, certain aspects of this deserve special mention.

On the assets side of the balance sheet, as expected a clear preference for asset-backed securities (based on trade finance) is evident. This preference is due to the fact that sale-related securities are considered low risk and resemble familiar conventional fixed-income securities in terms of the risk-return profile. In conjunction with issues related to *mudaraba* and *musharaka*, these factors make these asset backed securities the preferred choice. In addition to trade-based instruments, Islamic financial institutions prefer leasing, considered to carry a lower risk and have less uncertain returns than *musharaka* or *mudaraba*. In a typical Islamic bank, sale and lease-based transactions dominate the assets portfolio and often exceed 80 percent, with the remainder allocated to profit-

sharing arrangements. As a result, Islamic financial institutions have limited themselves to a small set of asset classes that constrain their opportunities for portfolio diversification and its benefits. Although this practice is conservative in nature as assets are collateralized, it has associated costs in terms of additional exposure to credit and operational risk.

3.5.2.4 Earnings and its measurement

Transparency is defined as "the public disclosure of reliable and timely information that enables users of that information to make an accurate assessment of a bank's financial condition and performance, business activities, risk profile and risk management practices". Accordingly, lack of transparency creates a risk of incurring losses due to bad decisions based on incomplete or inaccurate Information. The current differences in accounting treatment between Islamic financial institutions have reduced the comparability, consistency and transparency of their financial statements.

3.5.2.5 Capital structure

Their analysis of the capital position of a bank will focus on a variety of factors, including management's philosophy, the composition of the capital, the measurement of the capital base, and how capital is allocated internally. Rating agencies try to understand how management decides on the appropriate level of capital for the bank, what management views as the appropriate methods for judging business risks requiring capital, such as credit risk, market risk, and off-balance sheet exposure. It should be noted here that the risk-sharing feature of investment accounts unique to Islamic financial institutions makes them near-substitutes of capital as far as risk absorption is concerned. Rating agencies also consider regulatory capital ratios within their analysis. From their standpoint, it is preferable for a bank to be categorized as "well capitalized". They give more credit to a bank with strong tangible common equity. The AAOIFI has recently come up with a framework to calculate such regulatory capital ratios for Islamic financial institutions in the light of the unique risk absorption feature of Islamic financial institutions. [11]

3.5.2.6 Regulation, auditors and corporate governance

Information disclosure through financial statements facilitates market discipline and enables different stakeholders to protect their own interests by

allowing depositors to withdraw their funds, shareholders to sell their shares and regulators to take the necessary actions in case of any mismanagement or misconduct. However, the current differences in accounting treatment between Islamic financial institutions have reduced the comparability, consistency and transparency of their financial statements. This creates uncertainty and limits the potential role of market discipline.

Another issue of significance is related to the governance rights granted to investment account holders. Large investment accounts serve as a source of capital to finance pools of investments and assets of the financial institution, but their holders are not granted any participation in the governance or monitoring process. The majority of investment account holders are individuals who may not organize themselves collectively to perform the necessary monitoring.

Since Islamic financial institutions are less dependent on debt (unlike deposits and bonds in case of conventional financial institutions) for raising funds and more on equity in the form of investment accounts plus shareholders' equity, some of the above factors are likely to assume lesser significance in the composite rating for Islamic financial institutions.

3.5.3 Management quality rating

MQ ratings for asset managers provide opinions of the overall quality of investment management entities, regardless of size, ownership structure and scope of operations and may be suitable for Islamic financial institutions as well. The ratings emphasize qualitative over quantitative factors. MQ ratings are different from traditional debt ratings in that they do not apply to a management company's ability to repay a fixed financial obligation of its own or satisfy contractual financial obligations, which it may have been entered into through an actively managed portfolio. When assigning an MQ rating for an asset manager, conventional raters examine the following factors - a sound organizational structure; management quality, strategy and the investment decision making process; financial strength; risk management; operations, practices and procedures; fiduciary risk; the local regulatory structure and client servicing.[12] These factors are equally relevant for Islamic financial institutions too. However, Islamic banking possesses some unique characteristics with respect to some of these factors that are highlighted below.

3.5.3.1 Organizational structure

Organizational structure is an important consideration in determining the firm's overall ability to exercise timely, accurate, and properly authorized control over the many diverse activities involved in the execution, delivery, and performance of its obligations. Overall, organization structure and operational requirements are defined by the following factors:

- Ownership structure and relationship to parent or related entity;
- Size of firm, as measured by assets under management, market share, number of employees;
- Type, complexity, and risk profile of asset classes under management;
- Legal jurisdiction of operations; and
- Markets served (retail versus institutional; domestic vs. international)
- Number and type of products offered.

3.5.3.2 Management quality, strategy and the investment decision making process

These are the core strengths of a sound asset manager. The examination incorporates a review of the firm's franchise, operations, and financial condition, and strategies for the future.

Islamic financial institutions are often exposed to a type of operational risk arising out of the risk of failure of internal processes as related to people and systems. Specifically, people risk, arising from incompetence or fraud, exposes Islamic financial institutions to potential losses.

3.5.3.3 Financial strength

Financial strength is a key element in the successful operation of money management organizations. The assessment of financial fundamentals considers not only the current financial status of the company but also trends in earnings, cash flow, profitability, and capital adequacy.

A related issue here is the general confusion created by the heterogeneous interpretations of the fundamental *Shariah* rules resulting in differences in financial reporting, auditing and accounting treatments by Islamic financial institutions.

3.5.3.4 Risk management

The review of risk management examines the practices and procedures the company uses to manage business risks. Included in this assessment is how the asset management group evaluates product offerings and selects clients.

Risk management function is a challenging task affecting the performance of Islamic financial institutions. 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. Islamic financial institutions are restricted in their ability to borrow or to invest for a short-term, even while attempts are on to develop an active inter-bank money market. Thus, these institutions are exposed to greater liquidity risk in comparison to their conventional counterparts.

Islamic financial institutions are also exposed to credit risk or the risk of delays and defaults in repayment by counter-party. Islamic financial institutions are as much into debt-based finance as are their conventional counterparts. This is because of their large-scale use of debt-based modes of financing, such as, *bai muajjal, bai-salam, bai-istisna*, and *ijara*. Hence, credit risk assessment is quite important for such institutions. It is at times argued that the *riba*-based transactions of conventional banks have a built-in mechanism to penalize defaults and delays in payments. Islamic banks cannot increase the nominal value of debt in case of defaults and hence, are likely to witness greater incidence of defaults. Of course, there are a few *Shariah*-approved ways of penalizing willful default. [13]

Islamic financial institutions also use equity-based modes of financing, such as *mudaraba* and *musharaka*. Use of such modes invariably involves moral hazard problems. In case of *mudaraba* the *rabb-ul-mal* (Islamic financial institution) bears all the losses in case of a negative outcome. It cannot oblige users of the funds (*mudarib*) to take the appropriate action or exert the required level of effort needed to generate the expected level of returns. Also, the financial institution does not have the right to monitor or to participate in management of the project and hence may loose its principal investment in addition to its potential profit share if the entrepreneur's books show a loss.

The moral hazard problem would be reduced in *musharaka* where the capital of the partner (*musharik*) will also be at stake. Furthermore, equity partnership would minimize the problem of informational asymmetry as the Islamic financial institution would have the right to participate in the management of project in which it is investing. However, *musharaka* is also associated with higher cost of information-gathering and monitoring. Because of the problems associated with *mudaraba* and *musharaka*, Islamic financial institutions tend to

allocate limited funds to these asset classes perhaps resulting in less-than-efficiently-diversified portfolios.

Islamic financial institutions also face market risk.[14] Islamic banks generally engage in commodities trading in the *murabaha* mode and are exposed to volatility in commodity prices. A large number of Islamic banks have investments in equity - both as long term participations and joint venture *musharakas* and also in the form of equity *mudaraba* funds. The latter are exposed market risk due to price volatility. It is generally felt that equity *mudaraba*s of many Islamic institutions comprise stocks with low levels of liquidity. Many of the Muslim countries do not have developed secondary equity markets. While there is some truth in this assertion, an analysis of various equity *mudaraba*s reveal that many of these have been floated in developed markets. Another point to be noted in this connection is that speculation is, in general, frowned upon by Shariah Boards of Islamic banks. Islamic banks are generally expected to have longer holding periods and refrain from excessive speculation in equity markets and thus, be insulated from the risk-enhancing properties of excessive speculation.

Trading of currencies wherever undertaken by an Islamic bank is on a spot basis. Currency transactions on a deferred basis are not permissible according to an overwhelming majority of *Shariah* scholars. Hence, fluctuations in currency rates do not constitute an element of market risk for such trading. However, assets held outside the trading book and denominated in a foreign currency are subject to such risk.

Unlike their conventional counterparts, Islamic banks do not deal in derivative contracts such as, options, futures, swaps, and their other exotic variants in a significant way - either for trading or for hedging purposes. *Shariah* Boards of a majority of Islamic banks consider these instruments as unIslamic on several grounds. While a discussion of the *Shariah*-related issues is beyond the scope of this study, the fact remains that the extent of use of such instruments by Islamic financial institutions is grossly insignificant. While for conventional banks, the derivative instruments held in their trading book are subject to both the market risk and the credit risk (since they face the risk of loss due to market fluctuations in the value of the underlying instrument as also due to failure of the counterparty to the derivative contract), Islamic banks would be largely free from such risk.

The interest rate exposure of conventional banks includes exposures arising from interest-bearing and discounted financial instruments, derivatives based on the movement of interest rates and interest rate exposures embedded in derivatives based on non-interest related derivatives including foreign exchange forward contracts. In contrast Islamic banks are largely immune to this risk factor. An Islamic bank would however, be exposed to interest rate risk to the extent the

bank resorts to debt sales in the secondary market at a price different from the nominal value of the debt and the market continues to use interest rates directly or indirectly in investment and financing decisions, as in case of floating-rate *ijara*.

3.5.3.5 Operations, practices and procedures

In reviewing operations, the rating agencies look at all activities relating to management and reporting, trading operations, client servicing, and custody (securities processing). This includes a review of internal and external computer systems that connect companies with the markets, service providers and clients. Islamic financial institutions often face a technology risk, which is associated with the use of software and telecommunication systems that are not specifically tailored to the needs of the institution.

3.5.3.6 Fiduciary risk

Investment management is a fiduciary business, subject to fiduciary risk. As such, an investment advisory firm is generally held to a higher standard of conduct than other businesses. While the definition of a fiduciary varies by jurisdiction, an investment adviser is generally under a fiduciary duty to its clients to act in their best interests, avoid conflict of interest, and to deal fairly and honestly with its clients without profiting at their expense.

Fiduciary risk has a specific nature in the case of Islamic financial institutions as it directly emanates from the PLS feature of Islamic finance. AAOIFI (1999) defines fiduciary risk as that of becoming legally liable for a breach of the investment contract either for non-compliance with S*hariah* rules or for mismanagement of investors' funds.[15] Such legal liability would expose the financial institution to direct losses associated with breach of its fiduciary responsibility toward its depositors as well as indirect losses resulting from the decline in the market price of its listed shares. In addition, the reputation of the financial institution would be adversely affected by negligence or misconduct. Even a financially sound Islamic financial institution could be exposed to the risk of failure as a result of losing the confidence of its depositors, who would withdraw their funds. Fiduciary risk also exposes both equity holders and investment depositors to risk of economic losses as they would not receive their potential profit share as a result of the financial institution's misconduct.

3.5.3.7 Local regulatory structure

Understanding of the local regulatory structure and proposed changes to it, if any is an essential component of the analysis. Often a 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.

Negligence or mistakes in complying with regulations expose financial institutions to regulatory risk and may lead to penalties. Such risk may however result from a high degree of discretion on the part of the supervisor or from limited transparency in the regulation. Confusion may also result in regulatory risk where Islamic financial institutions are subject to dual regulation in countries with mixed systems of Islamic and conventional banking. In addition, differences between the supervisory *Shariah* boards (SSB) of individual financial institutions within each country as well as differences between the regulatory bodies in various countries may create general uncertainty as to the rules to be followed.

3.5.3.8 Client servicing

This review examines the type, quality and frequency of client reporting that, unless outsourced, is handled by the investment management firm. It also extends to internal shareholder record-keeping and the quality of service available to packaged product investors.

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 *Shariah* law, some financial institutions enforce the penalty as a deterrent mechanism and use the collected sums for charitable causes.

After evaluating an Islamic financial institution in the light of the above factors while taking into account its uniqueness, the conclusions may be incorporated into an overall composite rating for the financial institution. This

process is not additive and is not quantitative, but rather weighted according to the characteristics of the financial institution. Needless to say, the above process would involve due consideration of all the unique risk factors as also the ability of Islamic financial institutions to share risks as highlighted in the preceding section.

3.6 Empirical Research on Rating

Most of the empirical studies related to ratings available in modern finance literature deal with credit risk alone. Also much of these studies relate to credit risk with bonds or fixed-income securities and not to credit risk with financial institutions.

3.6.1 Review of research

Much of the research literature pertains to assessment of credit risk and more specifically, of bankruptcy risk. The prediction of corporate bankruptcies is an important and widely studied topic since it can have significant impact on bank lending decisions and profitability. The traditional approach for banks for credit risk assessment is to produce an internal rating, which takes into account various quantitative as well as subjective factors, such as leverage, earnings, reputation, etc., through a scoring system. The problem with this approach is of course the inconsistency and duplication of effort associated with such prediction. At the same time, using the ratings issued by the standard credit rating agencies, such as Moody's and Standard & Poor's were considered problematic, since these ratings tend to be reactive rather than predictive. For the agencies to change a rating of a debt, they usually wait until they have a considerably high confidence/evidence to support their decision. There was thus, a need to develop fairly accurate quantitative prediction models that can serve as very early warning signals for counterparty defaults.

The above motivation led to a large amount of research efforts being directed towards a search for practical measures of probability of default and bankruptcy. Table 3 presents a list of such empirical studies. Beaver (1966) and Altman (1998) were among the pioneers who used accounting variables to predict credit and bankruptcy risk. Edward Altman employed a multiple discriminant analysis (MDA) to identify a small number of accounting variables that could discriminate between financially sound and potentially bankrupt companies with a reasonable degree of accuracy. The study seeks to find a linear function of financial ratios that maximizes the differences (variance) between the two groups of firms while minimizing the differences within each group. The variables of the

Table 3: Empirical Studies Cited in the Review

R. Beaver, "Financial ratios as predictors of failure," *Empirical Research in Accounting: Selected Studies 1966, J. Accounting Research*, vol. 4, pp. 71–111, 1966.
E. Altman, "Financial ratios, discriminant analysis and the prediction of corporate bankruptcy," *Journal of Finance*, vol. 13, pp. 589–609, 1968.
Y. Alici, "Neural networks in corporate failure prediction: The UK experience," in *Proceedings of Third International Conference on Neural Networks in the Capital Markets*, A. N. Refenes, Y. Abu-Mostafa, J. Moody, and A. Weigend, Eds. London, UK, Oct. 1995, pp. 393–406.
B. Back, T. Laitinen, and K. Sere, "Neural networks and genetic algorithms for bankruptcy predictions," *Expert Systems Applications.*, pp. 407–413, 1996.
J. Boritz, D.Kennedy, and A. Albuquerque, "Predicting corporate failure using a neural network approach," *Intelligent Systems. in Accounting, Finance, and Managemant.*, vol. 4, pp. 95–111, 1995.
P. Coats and L. Fant, "Recognizing financial distress patterns using a neural network tool," *Financial Management*, vol. 22, pp. 142–155, 1993.
K. Coleman, T. Graettinger, and W. Lawrence, "Neural networks for bankruptcy prediction: The power to solve financial problems," in *Neural Networks in Finance and Investing*, R. Trippi and E. Turban, Eds. Chicago: Probus Publ., 1993.
K. Lee, I. Han, and Y. Kwon, "Hybrid neural network models for bankruptcy predictions," *Decision Support Systems*, vol. 18, pp. 63–72, 1996.
M. Odom and R. Sharda, "A neural network model for bankruptcy prediction," in *Proceedings of International Joint Conference on Neural Networks*, San Diego, CA, 1990.
K. Tam, "Neural network models and the prediction of bank bankruptcy," *Omega*, vol. 19, pp. 429–445, 1991.
K. Tam and M. Kiang, "Managerial applications of the neural networks: The case of bank failure predictions," *Management Science*, vol. 38, pp. 416–430, 1992.
P. Brockett,W. Cooper, L. Golden, and U. Pitaktong, "A neural network model for obtaining an early warning for insurance insolvency," *Journal of Risk and Insurance*, vol. 61, pp. 402–424, 1994.
M. Crouhy, D. Galai, and R. Mark, "A comparative analysis of current credit risk models," *Journal of Banking & Finance*, vol. 24, pp. 59–117, 2000.
H. Jo, I. Han, and H. Lee, "Bankruptcy prediction using case-based reasoning, neural networks, and discriminant analysis," *Expert Systems Applications*, vol. 13, pp. 97–108, 1997.
E. Altman, G. Marco, and F. Varetto, "Corporate distress diagnosis: Comparisons using linear discriminant analysis and neural networks," *Journal of Banking and Finance*, vol. 18, pp. 505–529, 1994.
T. Bell, G. Ribar, and J. Verchio, "Neural nets vs. logistic regression: A comparison of each model's ability to predict commercial bank failures," *Deloitte Touche/ University of Kansas Symposium on Auditing Problems*, 1990, pp. 29–53.

scoring function are generally selected from among a large set of accounting ratios on the basis of their statistical significance. The coefficients of the scoring functions represent the contributions (weights) of each ratio to the overall score. The popularity of Altman's Z-score among the researcher and financial analyst community led to a large number of subsequent research studies that used a similar approach to assess credit risk and predict bankruptcy. Some of these studies used accounting data while others used market data. The linear discriminant analysis is based on two restrictions: One restriction is that the dependent variables must follow a normal distribution. The other is that the variance/covariance matrix of the dependent variables is equal for the two groups of firms.

In addition to discriminant analysis, studies also used probit/logit regression. Logit analysis uses a set of accounting ratios to predict the probability of fund-seeker default, assuming that the probability of default takes a logistic functional form and is, by definition, constrained to fall between zero and one. In the linear logistic model the dependent variable is the log of the *odd-ratio*, which is assumed to be linearly related to the explanatory variables (the accounting data). The main advantage of the logistic regression is that it does not require restrictive statistical hypotheses of the variables. In addition, it is possible to assess the relative importance of the different ratios included in the function, using a simple t-test (this is not possible in the discriminant analysis). The main problem is that an increase/decrease in the probability does not always correspond to the same deterioration/improvement in the economic situation of the firm. It is understated when the probability values lie near 0 or 1; it is overstated when the probability values lie near 0.5.

The main criticisms to the above statistical models are the following: (a) they are empirical models lacking an underlying theory of the crisis of a firm; the accounting data to include in the statistical analysis are chosen on the basis of personal judgment; (b) the coefficients of the functions are not stable. Over time these models lose accuracy and need to be re-estimated. Sometimes this loss of accuracy is due to different sensitivities to the economic cycle by the various sectors represented in a given sample. For this reason, it is preferable to have different models for each different sector; (c) sometimes their sign is not economically meaningful; (d) accounting data are not forward-looking; because these data are measured at discrete intervals, they do not capture more fast-moving changes that would be reflected in market data; and (e) they are based on linear relationships among variables.

A relatively new – and less thoroughly tested – approach to the problem of credit risk classification is based on artificial intelligence methods, such as expert

systems and automated learning (neural networks, decision trees and genetic algorithms). These methods dispense with some of the restrictive assumptions of the earlier statistical models. Some notable studies in this area that develop neural network-based models for predicting corporate failure were reported by Alici (1995), Back, Laitinen and Sere (1996), Boritz, Kennedy and Albuquerque (1995), Coats and Fant (1993), Coleman, Graettinger, Lawrence and Lee (1993), Han and Kwon (1996) and Odom and Sharda (1990). Tam (1991), Tam and Kiang (1992) developed a neural network-based model for predicting bank failures. Brockett, Cooper, Golden and Pitaktong (1994) developed a neural-network based model for predicting failure of insurance companies.

A few other studies were devoted to undertake a comparison of alternative prediction models. A study by Bell, Ribar and Verchio (1993) compares alternative model's ability to predict commercial bank failures. Recent studies by Crouhy, Galai and Mark (1990), Jo, Han and Lee (1997), Altman, Marco and Varetto (1994) undertake a comparison of models based on discriminant analysis with those based on neural network. Another study by Bell, Ribar and Verchio (1990) compares logistic regression with neural network based models.

A survey of results of these studies reveals that none of the models yielded superior results in a consistent manner raising a serious question mark over the practical significance of such research studies.

3.6.2. Lessons from research

The above empirical studies focus on the prediction of default or bankruptcy employing a variety of tools. While a prediction of the default event is by itself very useful, an estimate of the default probability is perhaps what is practically needed. For portfolio credit risk estimation, this is essential in order to compute the loss level. The loss level is the level for which there is a probability of 1% that the loss incurred in the portfolio will exceed that level in a particular time period.) Also, typically banks have several prediction systems in place. They make a lending decision based on the combination of these predictions. Having a probability of default rather than a (binary) prediction of default is valuable for them.

The broad range of empirical studies highlighted above use financial data. Financial ratios culled from the reported financial statements constitute bulk of such data. Such an approach is not of use to us for two reasons.

- Islamic financial institutions have not-too-long a history. Even while financial data may be available for a reasonably long period, data on actual ratings/ bankruptcies are almost non-existent considering the infant stage of

the Islamic financial services industry. Hence, there is no way, a quantitative model may be fitted when data does not exist.

- Use of financial ratios is of limited use and may perhaps serve as a starting point only in any assessment of risk or management quality.

In fact, a misconception still exists among many that it is possible to assign ratings or assess risk on the basis of financial ratios alone in a mechanical manner. It is important to appreciate the fact that in reality, no one ratio, or even a set of ratios, will lead us to a specific rating conclusion. Rather, ratings reflect the combined input of quantitative as well as qualitative analysis.

Credit ratings are intended to provide a forward-looking opinion on a company's ability to meet its debt obligations in the future. The broad analysis is in fact distilled into a universal symbol system that serves as a relative measure of the risk of default. In such analysis of any company, no matter what the industry, the goal is to identify and understand the company's strengths and weaknesses. This understanding provides a basis for predicting the company's sensitivity to changes in its operating environment or financial condition that could lead to a greater probability of default.

For example, Moody's analytic approach is necessarily broad and dynamic, and combines quantitative financial analysis with qualitative assessments. They place heavy emphasis on qualitative factors as the best means to assess future franchise performance, including quality of management, risk tolerance, strategic plans and market confidence. Quantitative measures are also helpful in assessing performance. Financial ratios, a critical source of quantitative information, are a valuable tool in the analytic process. But like any other tool, ratios have their limitations and need to be used with these limitations in mind.[16]

To sum up, a quantitative approach to rating does not provide "complete" solution to the problem. It may at best serve as a starting point and is used as such by rating agencies throughout the world. And when this approach is unsuitable for rating debt obligations that have many predictable dimensions, they would be of little use for rating ethical performance which must use a judgmental approach.

3.7 Islamic Value Rating

What makes Islamic financial institutions different is their objective of *Shariah* compliance. They are forbidden from doing anything that contravenes the *Shariah*. They are also expected to achieve high standards of Islamic values and ethics.

Though Moodys' and other agencies have been providing ratings for some Islamic financial institutions as well, these ratings reflect credit risk and (more recently) management quality. None of the agencies have so far come up with a rating that reflects the degree to which Islamic financial institutions fulfill their all-important objective of *Shariah* compliance. The going practice of reporting an "all-clear" signal from their respective *Shariah* Boards in their Annual Reports hardly fulfills the informational need of the market. Further, *Shariah* compliance should not be seen as "hurdle" to cross or a constraint to overcome. Similar to credit risk and management quality, *Shariah* compliance or Islamic value may be seen as a variable and the degree or level of *Shariah* compliance may be captured in ratings.

3.7.1 Survey findings

The survey results pertaining to V-M-G statements presented earlier strongly underscores the need for Islamic financial institutions to aim for achieving highest possible levels of Islamic values. The score accorded to Islamic values and *Shariah* compliance is observed to be even higher than that accorded to maximization of shareholder wealth. While the latter is traditionally seen to be the ultimate goal of an organization, this is not so in case of Islamic financial institutions. And it follows that f market participants are equally if not more concerned about ethical performance as compared to financial performance, then the market must also have a way to evaluate such performance. We seek to highlight the need for ethical performance in the Part II of the survey too. The results from this part are highlighted in Table 4 below.

A low score here means that participants strongly agree with the statements and vice versa. A score of less that 2 in most case means that participants either strongly agree or agree with the statements highlighting the need for Islamic value rating. From table 4, it is clear that participants either strongly agree or agree with all the statements except perhaps statement 4. This of course implies that according to most participants, Islamic financial institutions should be governed by the objective of *Shariah* compliance and Islamic value maximization in addition to shareholder wealth maximization and that there is a need for developing Islamic Value Ratings for evaluating ethical performance in addition to ratings that measure financial performance.

Table 4. Survey Results on Need for Islamic Value Rating

STATEMENT		Average Score			
		A	B	C	D
1.	Islamic FIs should be governed by the objective of Shariah compliance and Islamic value maximization in addition to shareholder wealth maximization.	1.7	1.4	1	1.4
2.	Between two Islamic FIs, Muslim investors would prefer to invest in the one that scores higher in terms of Islamic ethics and value (assuming similar profitability, risk and efficiency profile of both)	1.6	1.4	1	1.5
3.	Between two Islamic FIs, customers and depositors would prefer to deal with the one that scores higher in terms of Islamic ethics and value (assuming similar profitability, risk and efficiency profile of both)	1.8	1.4	1.9	1.8
4.	Between two Islamic FIs, creditors would prefer to deal with the one that scores higher in terms of Islamic ethics and value (assuming similar profitability, risk and efficiency profile of both)	2.1	1.8	1.5	2.2
5.	There is a need for developing Islamic Value Ratings for evaluating ethical performance in addition to Ratings that measure financial performance.	1.7	1.4	1.9	1.6

In the next stage we delineated the following norms for possible consideration in an Islamic Value Rating (IVR) and sought the opinion from survey participants on their relative significance. The participants were asked to assign a score between 1-10 to each one of the concerns, based on the relative importance of these concerns.

- Concern for human rights (no investment in any government or business which fails to uphold basic human rights within its sphere of influence, any business whose links to an oppressive regime, such as, Israel are a continuing cause for concern)
- Concern for social enterprise (support to charities and the broad range of organizations involved in the Social Enterprise sector, including: co-operatives, credit unions, community finance initiatives)
- Concern for corporate responsibility (support to businesses which take a responsible position with regard to fair trade, labor rights in their own operations and through their supply chains in developing countries; no support to irresponsible marketing practices in developing countries,

- Emphasis on partnership-based economy (increase share of equity-based financing such as, *mudaraba* and *musharaka* as compared to debt-based financing, such as, *murabaha* and *ijara*)
- Concern for under-privileged sector (support to small businesses, businesses in developing Muslim countries, businesses by first-generation entrepreneurs)
- Concern for flight of capital from developing to developed economies - reduce exposure to Western markets and increase focus on Muslim economies
- Concern for *riba* (interest) and speculation – avoid riba and speculation in own operations and support to businesses which show similar concern
- Concern for ecological impact (no investment in any business whose core activity contributes to global climate change, the manufacture of chemicals which are persistent in the environment and linked to long term health concerns, the unsustainable harvest of natural resources - support to businesses involved in recycling and sustainable waste management, renewable energy, sustainable natural products and services, the pursuit of ecological sustainability)
- Concern for animal welfare (no investment in animal testing of cosmetic or household products or ingredients, blood sports, which involve the use of animals or birds to catch, fight or kill each other, the fur trade)
- Emphasis on customer consultation
- Concern for discrimination in employment based on sex, race and nationality
- Concern for genetic modification (no investment in businesses involved in the development of genetically modified organisms where the following issues are evident - negative impacts on developing countries; in particular, the imposition of 'Terminator' technologies, patenting; in particular, of indigenous knowledge, cloning)

The results of this survey are presented in Table 5.

An analysis of the survey results reveals that the most important concern as perceived by the survey participants was concern for *riba* (interest) and speculation. Islamic financial institutions must not only avoid *riba* and speculation in own operations but also support businesses which show similar concerns. Among the other more important concerns are (i) concern for human rights (ii) concern for social enterprise or support to charities and the broad range of organizations involved in the Social Enterprise sector, including cooperatives, credit unions, community finance initiatives, (iii) emphasis on partnership-based economy (iv) concern for under-privileged sector and (v) concern for discrimination in employment based on sex, race and nationality. Among the least

Table 5: Relative Significance of Islamic Value Concerns

Islamic Value Concerns	Score			
	A	B	C	D
Concern for human rights (no investment in any government or business which fails to uphold basic human rights within its sphere of influence, any business whose links to an oppressive regime, such as, Israel are a continuing cause for concern)	7.1	7.5	5.5	7.5
Concern for social enterprise (support to charities and the broad range of organizations involved in the Social Enterprise sector, including: co-operatives, credit unions, community finance initiatives)	7.2	8.4	5.5	7.3
Concern for corporate responsibility (support to businesses which take a responsible position with regard to fair trade, labor rights in their own operations and through their supply chains in developing countries; no support to irresponsible marketing practices in developing countries,	7.3	7.5	5	6.9
Emphasis on partnership-based economy (increase share of equity-based financing such as, *mudaraba* and *musharaka* as compared to debt-based financing, such as, *murabaha* and *ijara*)	7.3	8.3	5.5	7.3
Concern for under-privileged sector (support to small businesses, businesses in developing Muslim countries, businesses by first-generation entrepreneurs)	6.8	7.6	6	7.2
Concern for flight of capital from developing to developed economies – reduce exposure to Western markets and increase focus on Muslim economies	6.9	7.2	5.5	6.9
Concern for *riba* (interest) and speculation – avoid riba and speculation in own operations and support to businesses which show similar concern	8.4	9.1	9.5	8.6
Concern for ecological impact (no investment in any business whose core activity contributes to global climate change, the manufacture of chemicals which are persistent in the environment and linked to long term health concerns, the unsustainable harvest of natural resources, - support to businesses involved in recycling and sustainable waste management, renewable energy, sustainable natural products and services, the pursuit of ecological sustainability	6.3	6.8	4.5	6
Concern for animal welfare (no investment in animal testing of cosmetic or household products or ingredients, blood sports, which involve the use of animals or birds to catch, fight or kill each other, the fur trade	5.9	6.2	4	5
Emphasis on customer consultation	7.8	7.8	5.5	6.4
Concern for discrimination in employment based on sex, race and nationality	7.6	7.9	7	7.1
Concern for genetic modification (no investment in businesses involved in the development of genetically modified organisms (GMOs), where, in particular, the following issues are evident - negative impacts on developing countries; in particular, the imposition of 'Terminator' technologies, patenting; in particular, of indigenous knowledge, cloning	6.6	6.9	4	5.6

important concerns were concerns for animal welfare and for genetic modification.

3.7.2 The model

In the earlier section we reported survey finding that identified six significant factors that may be used as bases for measuring ethical performance of Islamic financial institutions. A simple way to develop an Islamic value rating system would be to classify Islamic financial institutions into finite number of classes or categories (perhaps with symbols in the range V5-V1) based on their respective scores. The scores in turn, could be obtained as a weighted linear combination of the factors identified earlier. For example:

Score V for first Islamic financial institution (IFI_1) could be measured as equal to $W_1V_1+W_2V_2+W_3V_3+W_4V_4+W_5V_5$ where,

W_1 = Weight attached by survey respondents to Factor 1: concern for *riba* and speculation (8.6 in a scale of 1-10 or 86% in our survey).

V_1 = Actual score accorded to IFI_1 based on its demonstrated concern for Factor 1 (perhaps in a scale of 1-10 again)

More generally, if

W_i = Weight attached to i^{th} Factor;

${}_nV_i$ = Actual score accorded to n^{th} institution IFI_n based on its demonstrated concern for i^{th} Factor, then

Score of the nth institution IF_n or V_n = ? $W_i * {}_nV_i$

Once the values of V_n are obtained for all the n number of Islamic financial institutions, these could be easily sorted into a finite number of categories with each category now given a symbol to reflect ethical performance.

There are two types of variables that we use in the classification scheme: the coefficients (W_i) reflecting the significance or weight of a given ethical concern or factor and values reflecting actual performance of a given financial institution with respect to each of the factors (${}_nV_i$). In terms of the quantitative models we discussed in our review earlier, the coefficients (W_i) are first determined from historical data on actual rating symbols (convertible into a score) of a sample of institutions (V_n) and the values reflecting actual performance of a given financial institution with respect to each of the factors (${}_nV_i$). The latter are easily

quantifiable variables (such as, financial ratios). By running regressions (assuming linear relationship) or non-linear methods, such as, ANN on historical data on the multiple sets of variables, the values of coefficients (W_i) are obtained. These coefficients are subjected to rigorous statistical tests for their stability and classification power. The identification and measurement of the coefficients that are stable and classify well, completes the model.

While the strength of quantitative models lie in their objectivity, our survey results have shown that often these are not as stable as there are made out to be. Further, as pointed out earlier, Islamic financial institutions are of recent origin and there is no data available on their performance for a reasonably long period of time that could provide us with statistically significant results. We propose therefore, that the coefficients be obtained through survey method. Based on the survey we have undertaken in this study, our simple survey-based model would look like:

$$V_n = 0.86V_1+0.75V_2+0.73V_3+0.73V_4+0.72V_5$$

Factor 1 = concern for *riba* (interest) and speculation

Factor 2 = concern for human rights

Factor 3 = concern for social enterprise or support to charities and the broad range of organizations involved in the Social Enterprise sector, including: co-operatives, credit unions, community finance initiatives

Factor 4 = emphasis on partnership-based economy

Factor 5 = concern for under-privileged sector

The second type of data - the values reflecting actual performance of a given financial institution with respect to each of the factors 1-5 (${}_nV_i$) is to be provided by each financial institution that seeks rating in response to a detailed questionnaire provided by the rating agency. A similar method is used in case of financial rating or credit rating.

3.7.3 Need for Islamic Value Accounting (IVA)

Between rating of financial and ethical performance, the former is perhaps easier of the two because of large-scale availability of data from public financial statements that report results of financial accounting. In comparison, data for rating ethical performance is harder to obtain. In mainstream finance there have been some recent developments in this direction with what is called social

accounting or ethical accounting. While the field of social accounting is evolving rapidly, the following three leading approaches are noteworthy.[17]

3.7.3.1 Social performance reports

Ben & Jerry's is a US-based company that has been publishing a social performance assessment in its annual report every year since 1988. Typically, social reports are prepared by an external researcher over a two or three month period based on interviews of staff and other stakeholders and a review of company policies and procedures. Often, the reports comment on things like recycling and other environmental initiatives, workplace safety, employee satisfaction, corporate philanthropy, and pay equity for men and women.

3.7.3.2 Social audit

The second landmark development in this field has been social audit undertaken by companies like the TradeCraft and The Body Shop in Britain. Compared with social reports, social audits are more quantitative, comprehensive, and oriented towards verification of corporate social responsibility claims. Because they involve an external auditor and are more rigorous and time-consuming to conduct, social audits are also much more expensive.

3.7.3.3 Ethical accounting

Ethical accounting, compared with both social reports and social audits, is about bringing the views of stakeholders into the management arena via an extended process of dialogue. Pioneered by the Sbn Bank in Denmark ethical accounting's focus has not been on the objective assessment and 'reporting' of corporate social performance but rather on creating an alignment between corporate and stakeholder values. Stakeholders even make recommendations for changes to corporate policies and programs and review and comment on company budgets.

In line with the above innovative attempts, we suggest that Islamic financial institutions would do well to pioneer a process that may be called Islamic Value Accounting (IVA). Each Islamic financial institution may begin by identifying shared core values through a series of 'conversations' with employees, customers, shareholders and local community representatives. It would then draft value statements and turn them into a questionnaire for members of key stakeholders

groups. The results of the survey in the form of an Islamic Value Accounting (IVA) statement would provide the institution and stakeholders with a measure of how well the institution has lived up to Islamic values. These IVA statements would provide the first-cut data to the rating agency that would be supplemented by data obtained by the agency from the institution in the form of detailed in-depth questionnaire. The process of seeking data would also incorporate elements of social audit involving an objective assessment of the institution's concern for specific Islamic values as reflected in its various decisions, activities and projects.

4. SUMMARY AND CONCLUSION

The study highlights the need for two separate types of rating for measuring financial and ethical performance of Islamic financial institutions. The need for rating financial performance is traditionally more easily understood by market participants. This is evidenced by the fact that international rating agencies are already on the job of providing such ratings to Islamic financial institutions. While the need for rating ethical performance is also strongly felt by market participants, such rating is rather unconventional and therefore, is conspicuous by its absence.

With respect to measuring financial performance, the study highlights the fact that a composite rating may be developed to assess the credit risk and management quality of Islamic financial institutions. From our analysis it follows that the business of Islamic banking has some unique characteristics. Notwithstanding such uniqueness, such characteristics may be duly incorporated into the analysis in course of the rating exercise. Therefore, conventional rating procedure with some adaptation should serve the purpose of measuring financial performance.

The study aims to develop a framework for rating Islamic financial institutions for possible use by various stakeholders – shareholders, creditors, regulators and the like. Since Islamic financial institutions should be governed by the all-important objective of *Shariah* compliance and Islamic value maximization (in addition to shareholder wealth maximization) in an enhanced framework, the study highlights the need for developing appropriate rating methodology for evaluating ethical performance apart from financial performance.

The study begins with an empirical examination of Vision-Mission-Goal (VMG) of Islamic financial institutions to highlight the above. An analysis of the above statements reveals that *Shariah* compatibility and adherence to Islamic values is entrenched in the VMG statements of the Islamic financial institutions with explicit reference to Islam and the values it promotes. While shareholder wealth maximization is recognized as a legitimate objective, it is not the only one. The statements explicitly recognize the interests of other stakeholders besides shareholders, such as, employees, customers, business allies. More importantly they talk about duties and responsibilities as an Islamic corporate citizen, services to the Muslim community and the like. There is a frequent mention of bounds of *Shariah*, adherence to Islamic values and ethics, such as, trust, mutual respect and partnership.

The findings are then subjected to an opinion-survey on the desirability of specific components of such statements. The survey results reflecting the opinions of various categories of participants show that all the participants agree that Islamic financial institutions' VMG must include the following. They must aim to (i) operate in accordance with *Shariah* principles (ii) free the financial market of *riba* (interest) and speculation (iii) establish Islamic banking as banking of first choice (iv) develop and foster a competent and innovative management imbibed with high standards of integrity and Islamic banking professionalism and finally (v) uphold the principles of honesty, integrity and partnership. The results are quite revealing in the sense that all the highly preferred components related to Islamic values and most of these are conspicuous by their absence from the actual VMG of Islamic financial institutions. A surprising revelation from the survey is that none of the categories rate shareholder wealth maximization as an essential component of the VMG statement.

In the light of the distinct nature of Islamic banking we then sketch the risk profile of an Islamic financial institution and highlight the unique risk factors associated with Islamic banking. We then proceed to undertake an in-depth examination of existing rating methodologies employed by top international rating agencies for credit-rating of conventional financial institutions, performance-rating of investment and asset-management companies, rating of debt and equity instruments in order to assess their "appropriateness" for measuring the financial performance and risk of Islamic financial institutions. We undertake a survey of academic research relating to statistical and quantitative studies on credit rating and rating of financial instruments in search of clues regarding their suitability in general for development of a methodology for rating Islamic financial institutions. We observe that judgment-based rather then quantitative methods are invariably used in conventional rating exercises and the rating methodology employed by the international rating agencies may be modified to take into account unique risk factors of Islamic financial institutions. As far as the methodology for measuring ethical performance is concerned, it needs to be developed from scratch. A judgmental approach needs to be pursued here, given the non-quantitative nature of criteria.

We asked a wide range of respondents about the need for measuring ethical performance in addition to financial performance. It was very strongly felt by almost all respondents that there is indeed a need for Islamic value rating in order to strengthen the financial markets as investors, creditors, depositors put a "value" on ethical performance. We then examined a broad list of "ethical concerns" that are likely candidates for being considered as criteria and sub-criteria in Islamic Value Rating of Islamic financial institutions. An analysis of the survey results reveals that the most important concern as perceived by the survey participants was concern for *riba* (interest) and speculation. Islamic financial institutions must

not only avoid *riba* and speculation in their own operations but also support businesses which show similar concern. Among the other more important concerns are (i) concern for human rights (ii) concern for social enterprise or support to charities and the broad range of organizations involved in the Social Enterprise sector, including: co-operatives, credit unions, community finance initiatives, (iii) emphasis on partnership-based economy (iv) concern for under-privileged sector and (v) concern for discrimination in employment based on sex, race and nationality. Among the least important concerns were: concern for animal welfare and for genetic modification.

The study then goes on to develop a simplified survey-based model for classifying Islamic financial institutions based on their ethical performance. A quantitative approach is avoided because of following reasons. While the strength of quantitative models lie in their objectivity, our survey results have shown that often these are not as stable as there are made out to be. Further, as pointed out earlier, Islamic financial institutions are of recent origin and there is no data available on their performance for a reasonably long period of time that could provide us with statistically significant results. We propose therefore, that the coefficients of the model be obtained through survey method. The second type of data - the values reflecting actual performance of a given financial institution with respect to each of the factors is to be provided by each financial institution that seeks rating in response to a detailed questionnaire provided by the rating agency. The study also proposes 'Islamic value accounting' as a means of meeting the data needs of the rating agency.

5. NOTES AND REFERENCES

Notes*:*

1. Ahmad, Faheem (2000) *Rating of Islamic Financial Institutions*, Paper Presented at Seminar on Rating of Islamic Financial Institutions organized by AAOIFI at Bahrain.

2. Stubing, Darren (2000) *Capital Intelligence's Approach to Rating Islamic Financial Institutions*, Paper Presented at Seminar on Rating of Islamic Financial Institutions organized by AAOIFI at Bahrain.

3. Beikos, Andrews (1997) *Credit Rating and Islamic Financial Institutions*, Paper presented at the Conference on Structuring, Pricing, Marketing and Managing Islamic Funds, organized by IBC Asia at Kuala Lumpur.

4. Papers presented at Seminar on Rating of Islamic Financial Institutions organized by AAOIFI at Bahrain, on 1 April 2000.

5. Ahmad, Faheem (2000) Rating of Islamic Financial Institutions, Paper Presented at Seminar on Rating of Islamic Financial Institutions organized by AAOIFI at Bahrain.

6. The IBF Net: Islamic Business and Finance Network is a web-based group of students, researchers, academicians, *Shariah* experts, bankers and finance professionals interested in the field of Islamic business and finance. The network is coordinated by the author and hosted at http://islamic-finance.net

7. Khan, Mohsin (1986) *Islamic Interest-free Banking: A Theoretical Analysis,* International Monetary Fund Staff Papers, No. 33.

8. El-Hawary, Dahlia, Wafik Grais, Iqbal, Zamir (2004) *Regulating Islamic Financial Institutions-The Nature Of The Regulated*, Policy Research Working Paper 3227, The World Bank, Financial Sector Global Partnerships Department.

9. Accounting and Auditing Organization For Islamic Financial Institutions (1999) *"Statement On The Purpose and Calculation Of the Capital Adequacy Ratio For Islamic Banks*", AAOIFI, Manama, Bahrain.

10. Moody's Investors Service (1999) Moody's Management Quality Ratings, Methodology For Rating Banks, November, USA.

11. Hassan, Sabir Mohd. (1999) *Capital Adequacy and Basle Guidelines On Risk Weights of Assets For Islamic Banks*, Paper Presented at Seminar on Regulation of Islamic Banking organized by AAOIFI.

12. Moody's Investors Service (2000) *Moody's Approach to Assessing the Quality of Asset Management Companies: Rating Methodology*, USA.

13. Obaidullah, Mohammed (1997) Capital Adequacy Norms for Islamic Financial Institutions, *Islamic Economic Studies*, IRTI, IDB, Saudi Arabia.

14. Obaidullah, Mohammed (2003) *Market Risk in Islamic Banks and the Relevance of Islamic Contract for Risk Management*, Paper presented at International Conference on Islamic Banking, Jakarta.

15. Accounting and Auditing Organization For Islamic Financial Institutions (1999)*"Statement On The Purpose and Calculation Of the Capital Adequacy Ratio For Islamic Banks*", AAOIFI, Manama, Bahrain.

16. *Credit Ratings and Complementary Sources of Credit Quality Information* (2000), Basle Committee on Banking Supervision Working Papers, No.3.

17. Ann Svendsen (1998), *Social Accounting: The State of the Art*, The International Institute for Social and Ethical Accountability, at http://www.AccountAbility.org.uk

Other References:

1. Ilako, Charles (2000) *Corporate Governance and Risk Management Issues for Islamic Banks*, Paper Presented at Seminar on Rating of Islamic Financial Institutions organized by AAOIFI at Bahrain.

2. Moody's Investors Service (2002) *Rating Triggers in the Securities and Asset Management Industries*, USA.

3. Errico, Luca and Mitra Farahbaksh (1998) *Islamic Banking: Issues in Prudential Regulation and Supervision*, IMF Working Paper, International Monetary Fund.

4. Al-Omar, Fuad (1999) *Supervision, Regulation and Adaptation of Islamic Banks to the Best Standards: the Way Forward*, Paper Presented at Seminar on Regulation of Islamic Banking organized by AAOIFI at Bahrain.

5. Shabsigh, Ghiath (1999) *Issues in Islamic Banking Governance*, Paper Presented at Seminar on Regulation of Islamic Banking organized by AAOIFI at Bahrain.

6. Chapra, M.Umer, and Tariqullah Khan (2000), *Regulation & Supervision of Islamic Banks*, Occasional Paper No.3, Islamic Research and Training Institute, Islamic Development Bank

7. El-Hawary Dahlia, Wafik Grais, Zamir Iqbal (2003) *Regulating Islamic Financial Institutions-The Nature Of The Regulated*, Policy Research Working Paper 3227, International Monetary Fund.

8. Hassan Khabir (2003) *Value-at-Risk (VAR) Analysis of Islamic Banks,* Paper presented at International Conference in Islamic Banking, Jakarta.

9. Hakim, Sam (2003) *A Value-at-Risk Framework for Islamic Banks,* Paper presented at International Conference on Islamic Banking, Jakarta.

10. International Organization of Securities Commissions (IOSCO) (2004) *Islamic Capital Market Fact Finding Report*, July, IOSCO Islamic Capital Market Task Force.

11. Marston David and V.Sundararajan (2003), *Unique Risks of Islamic Banks and Implications for Systemic Stability*, paper presented International conference On Islamic Banking, Jakarta.

12. Khan Tariqullah and Habib Ahmed (2001) *Risk Management an Analysis of Issues in Islamic Development Bank*, Occasional Paper No.9. Islamic Research and Training Institute, Islamic Development Bank.

13. Syed Ali Salman (2004), *Islamic Models of Finance and Associated Liquidity Risks*, paper presented at the conference on Monetary Sector in Iran: Structure, Performance & Challenging Issues, Tehran.

Annexure I: Rating Agencies Across the Globe

USA

1. A.M. Best Co (www.ambest.com): Debt and preferred stock of insurance companies; claims-paying abilities of insurance companies
2. Duff & Phelps Credit Rating Co. (www.dcrco.com): Fixed income issues (corporate, structured and project finance)
3. Dun & Bradstreet (www.dnb.com): Companies' financial strength, credit worthiness, payment performance
4. KMV Corporation (www.kmv.com): Corporate default risk of commercial and investment banks and insurance companies
5. Lace Financial Corp. (www.lacefincl.com): Issuance of title insurance companies, commercial banks, bank holding companies, credit unions, savings and loans
6. Moody's Investors Service (www.moodys.com): Bonds (sovereigns, corporations, financial institutions, pooled investment vehicles, structured finance, thrifts, public
7. finance, public utility); bank deposits; commercial paper
8. Standard & Poor's (www.standardandpoors.com): Bonds from corporations, financial institutions, infrastructure finance, insurance, managed funds, public finance, sovereigns, structured finance
9. Thomson Financial Bankwatch (www.bankwatch.com): Debt issues of banks and securities firms; sovereign risk

Sweden

10. Bonniers Kreditfakta I Norden AB (www.kreditfakta.se): Public and private companies
11. Credit Safe AB (www.creditsafe.se): Public and private companies
12. Instantia Creditsystem AB International (www.instantia.se) Public and private companies Nbs N
13. Neufeld's Credit Information AB (www.neufelds.se): Public and private companies
14. SVEA Kredit-Information AB (www.sveaekonomi.se): Public and private companies
15. SVEFO Sverige AB (www.svefo.se): Public and private companies
16. Upplysningscentralen AB (UC AB) (www.uc.se): Public and private companies

Canada

17. Canadian Bond Rating Service (www.cbrs.com): Bonds and short-term paper (corporate, federal, provincial and municipal)
18. Dominion Bond Rating Service (www.dbrs.com): Bonds and short-term paper (corporate, federal, provincial and municipal)

Germany

19. Egan-Jones Credit Rating Co: High yield/high grade corporate issuers
20. Euro Ratings AG: Medium-sized corporations
21. R@S Rating Services AG (www.rating-services.de): Small and medium-sized corporations
22. Unternehmensratingagentur AG (URA) (www.ura.de): Small and medium-sized corporations

France

23. Fitch IBCA (www.fitchibca.com): Debt and preferred stock of corporations, sovereigns, governments, structured financing

Italy

24. Italrating DCR SpA (www.italrating.com): Bonds (corporate, local government, financials), insurance companies, structured finance

Japan

25. Japan Credit Rating Agency, Ltd (www.jcr.co.jp): Bonds (sovereign, corporate), commercial paper
26. Japan Rating And Investment Information, Inc. (www.r-i.co.jp): Japan Bonds (sovereign, corporate), commercial paper
27. Mikuni & Co (www.nttl-net.ne.jp/mcr): Corporate issuers including industrials, utilities, and financial institutions. In addition, bank guarantees to bond issues

Malaysia

28. Rating Agency Malaysia Berhad (RAM) (www.ram.com.my): Corporates, financial institutions

Cyprus

29. Capital Intelligence (www.ciratings.com) Cyprus Banks

Pakistan

30. JVC-VIS Credit Rating Company Limited

India

31. Credit Rating and Information Services of India Limited (CRISIL)
32. Investment and Credit Rating Agency (ICRA)