



Islamic Finance and Entrepreneurship:

Challenges and Opportunities Ahead

NIRVANA ABOU-GABAL
Harvard Kennedy School

ASIM IJAZ KHWAJA
Professor of Public Policy,
Harvard Kennedy School

BAILEY KLINGER
Director, Entrepreneurial Finance Lab
Research Initiative,
Harvard University

ISLAMIC FINANCE AND ENTREPRENEURSHIP: Challenges and Opportunities Ahead

EFLRI Islamic Finance Whitepaper

January 2011

Nirvana Abou-Gabal
Asim Ijaz Khwaja
Bailey Klinger

Entrepreneurial Finance Lab Research Initiative
Center for International Development
Harvard University

<http://www.cid.harvard.edu/eflri>

This work has been made possible through the generous support of the Harvard Kennedy School Middle East Initiative and the HKS Belfer Center for Science and International Affairs Dubai Initiative.

I. INTRODUCTION

In recent years Islamic finance has enjoyed rapid growth, but several challenges remain. Data show that there is significant unmet demand for shari'ah-compliant financial services, particularly among micro, small, and medium-sized enterprises (MSMEs). Moreover, the risks of concentrating in real estate, corporate, and government finance have been highlighted by the recent financial crisis, given their higher level of systematic risk compared to other segments like MSMEs. Finally, current shari'ah-compliant product offerings to MSMEs are highly concentrated in leasing and asset resale contracts, with limited use of the more legitimate profit and loss sharing contracts.

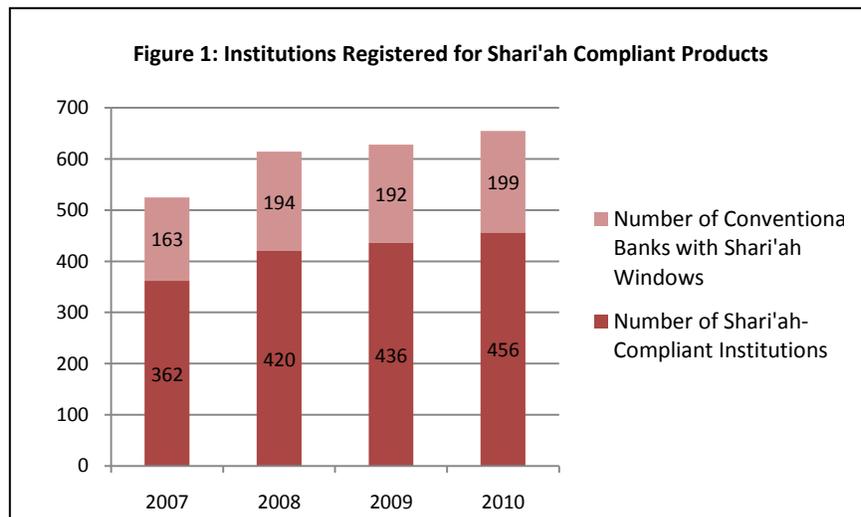
Successfully scaling up Islamic finance in the MSME market, particularly using profit and loss sharing contracts, requires resolving the problems of identifying good borrowers (information asymmetry) and ensuring repayment (moral hazard) with new technologies that are appropriate to the characteristics of this market. Namely, they must have low transaction costs, few information requirements, and be highly scalable to make a large portfolio of smaller financing sizes profitable.

The *Entrepreneurial Finance Lab Research Initiative* at Harvard's Center for International Development has been piloting new screening tools that offer to resolve these problems, and are ideal complements to profit and loss sharing contracts. Adapting and implementing these tools offers a significant profit opportunity to Islamic finance institutions as well as an opportunity to accelerate entrepreneurship and economic growth in their countries of operation.

II. ISLAMIC FINANCE - GROWTH

Islamic finance is a booming industry. Despite the financial crisis which has plagued the economies of both industrialized and developing nations, the Islamic finance industry has been flourishing and has enjoyed a 29 percent growth in assets in 2009 and an 8.85% growth rate in 2010. These assets are currently estimated to be worth \$895 billion (The Banker 2010). Moreover, the Global Head Islamic Finance of Thomson Reuters, predicts that Islamic finance industry will be valued at \$2 trillion in the next 5 years (MENA News Headlines 2010).

Over the course of 2010, 20 new banks offering shari'ah compliant financial products have entered the market. Moreover, an additional seven conventional banks began offering services via shari'ah-compliant windows. Figure 1 depicts the level and relative growth of the number of institutions offering Islamic financial products (The Banker 2010) and shows that this growth has continued in spite of the financial crisis.



Islamic Finance is increasing no longer just a GCC phenomenon but is gaining popularity across a wider range of countries. Although the majority of Islamic finance assets have indeed traditionally been concentrated in the Gulf Cooperation Council (more than 40 percent of shari’ah compliant assets), Islamic finance is enjoying significant geographic expansion, particularly in Asia. Islamic asset growth in the GCC slipped to just 5.5% in the 2010 ranking (down from 34.5 percent in 2009). Asia’s ranking on the other hand had a high growth rate of 22 percent. Table 1 depicts the regional breakdown of assets in Islamic finance (ibid).

Table 1: Regional and Global Assets (\$m)

	2007	2008	% Change	2009	% Change	2010	% Change
GCC	178,129.6	262,665.4	47.5	353,237.5	34.5	372,484.2	5.5
Non GCC MENA	176,822.2	248,264	43.9	315,090.5	26.9	337,949.8	7.3
MENA Total	354,951.7	510,929.4	41.5	668,328.5	30.8	710,434.0	6.3
Sub-Saharan Africa	4,708	6,662.1	-27.6	8,369.7	25.6	10,765.1	28.6
Asia	119,346.5	86,360.3	63.5	106,797.3	23.7	130,904.1	22.6
Australia/Europe/America	21,475.7	36,105.2	27.7	38,654.8	10.1	42,779.5	10.7
Global Total	500,481.9	639,076.9		822,135.1	28.6	894,882.7	8.9

At the country-level, Iran, Saudi Arabia and Malaysia were the world’s leaders in Islamic finance assets in 2009. The top 25 countries with shari’ah compliant assets in that year are illustrated in Table 2 (ibid).

Table 2: Shari’ah Compliant Assets (\$m) by Country

Rank	Country	Shari’ah Compliant Assets (\$m)	Rank	Country	Shari’ah Compliant Assets (\$m)
1	Iran	314,897.40	14	Pakistan	6,203.10
2	Saudi Arabia	138,238.50	15	Syria	5,527.70
3	Malaysia	102,639.40	16	Jordan	5,042.40
4	United Arab Emirates	85,622.60	17	Brunei	3,314.70
5	Kuwait	69,088.80	18	Yemen	2,338.70
6	Bahrain	44,858.30	19	Thailand	1,360.80
7	Qatar	34,676.00	20	Algeria	1,015.10
8	Turkey	22,561.30	21	Mauritius	992.20
9	United Kingdom	18,949.00	22	Switzerland	935.50
10	Bangladesh	9,365.50	23	Tunisia	770.10
11	Sudan	9,259.80	24	Singapore	725.00
12	Egypt	7,227.70	25	Palestine	612.50
13	Indonesia	7,222.20			

Moreover, the industry is expected to continue to grow in new regions of the world as conventional banking institutions in non-Muslim countries such as India, China, Japan, Germany, the United Kingdom and the United States have set up Islamic subsidiaries to cater to this growing market niche (Karim, Tarazi and Reille 2008). Countries in East Africa such as Kenya, Ethiopia, Tanzania and Uganda have also all “reported growing interest in shari’ah-compliant financing” (ibid).

It is important to note that it is not merely the Islamic lending industry which is becoming increasingly popular, but many consumers are also opting to deposit their savings in Islamic banks as well. This trend is occurring despite the fact that unlike conventional banks, Islamic banks do not provide consumers with a guaranteed rate of return (they instead operate under a profit and loss partnership structure similar to Islamic loans). These clients are exposed to an increased risk: if the bank incurs a loss the client becomes vulnerable to losing his or her savings (even the client’s principal is not secure). However, if the bank is successful, then the client enjoys a profit rather than a fixed interest rate. As outlined in the

work of Khanna and Khan, more and more Muslims are drawn to deposit in shari'ah compliant banks despite this increased risk (Khan and Khanna 2010).

III. ISLAMIC FINANCE - CHALLENGES

Despite the industry's growth, there remains significant unmet demand for Islamic financial services: approximately 72 percent of individuals living in Muslim-majority countries do not use any form of Islamic financial services (Karim, Tarazi and Reille, 2008)¹. This statistic is likely due to the limited reach of Islamic banking institutions to MSMEs in the Muslim world. For example, in Algeria, over 20 percent of microenterprise owners stated that they do not apply for loans for religious reasons. 43 percent of Syrian micro entrepreneurs also cited religious beliefs as the main reason why they do not apply for a loan. In Yemen, 40 percent of the nation's poor "demand Islamic financial services, regardless of the price" (Karim, Tarazi and Reille 2008, p.5). Despite this high demand, a mere 300,000 clients are reached by Islamic microfinance institutions worldwide and this outreach is primarily concentrated in three countries (Indonesia, Afghanistan and Bangladesh, which account for 80 percent of the global outreach of Islamic microfinance) (Karim, Tarazi and Reille 2008).

Related to the limited penetration of Islamic finance to the MSME market is another significant challenge: the limited use of true profit and loss sharing finance. Despite the fact that profit and loss sharing contracts are the purest forms of Islamic financing, most financial institutions shy away from these types of contracts due to the risks associated with their execution. This is especially true when it comes to MSME lending. Many small and micro-sized firms do not have adequate bookkeeping, which makes entering into a partnership risky for the financier. Moreover, these partnerships expose the financing institution to the potential of loan repayment/enforcement (i.e. moral hazard) problems. The client may conceal profits or engage in other undeclared activities that expose the Islamic finance institution to additional risks and losses.

Another significant hurdle of entering into profit and loss sharing partnerships with MSMEs is the fact that Islamic finance is built on a model of trust and confidence as a result of personal relationships that take time to establish. In today's modern financial system, building these relationships requires significant investments which often make it financially inefficient to lend to MSMEs using profit and loss sharing contracts. For example, in *mudaraba* contracts, where the Islamic finance institution has to bear all of the losses in the case of a negative outcome, it is difficult for the financier to force the client to exert the efforts necessary to secure the success of a business. Moreover, in *mudaraba* contracts the bank does not have the right to monitor or to participate in the management of a project and hence may lose its principal investment in addition to its potential profit if the entrepreneurs' books show a loss (El-Hawary, Grais and Iqbal 2004). This scenario can be easily exploited by untrustworthy clients who do not have a longstanding personal relationship with the financier.

For these reasons it is not surprising that most Islamic financial institutions shy away from profit and loss contracts. Despite the fact that "virtually every Islamic banking and finance advocate argues that equity participation is the desirable alternative and that non-participatory finance, sometimes referred to as 'trade-based financing modes,' is acceptable only as an interim measure for situations where participatory finance is clearly unsuitable, such as very small or personal consumption loans" (Feisal Khan 2010), non-profit and loss sharing contracts continue to constitute the overwhelming majority of

¹ Referencing Honohon, 2007

Islamic banks' portfolios. This fact is clearly illustrated in the Table 3 which shows how some of the world's largest Islamic banks² rarely use profit and loss sharing loans (Feisal Khan 2010)

Table 3: Bank Portfolios

	2006			2005		
	% Profit and Loss Sharing	% Non-Profit and Loss Sharing	% Other	% Profit and Loss Sharing	% Non Profit and Loss Sharing	% Other
Al Rajhi Bank	0	99.5	0.5	0	99.7	0.3
Kuwait Finance House ¹	20.1	78.4	1.5	22.7	75.1	2.2
Dubai Islamic Bank	14.4	85.6	0.0	25.3	74.7	0.0
Bank Islam Malaysia	0.7	99.0	0.3	0.79	98.9	0.4

IV. INNOVATIVE SOLUTIONS TO UNLOCK ISLAMIC FINANCE AND ENTREPRENEURSHIP

The problems of identifying good borrower (information asymmetry) and effectively monitoring (moral hazard) them are not limited to Islamic finance: they are challenges in almost all financial contracts, particularly in entrepreneurial finance. In the case of venture capital and commercial credit for large corporations, these problems are dealt with through intensive screening and monitoring. Investors and lenders spend a great deal of time evaluating potential investments and borrowers, including personal interviews, financial statements, sophisticated financial projections, and even directly participating in management.

But in the case of micro, small, and medium sized enterprises, the smaller financing size makes the transaction costs of these approaches prohibitive: extensive interviews and due diligence aren't economical for smaller loans. Moreover, the information asymmetry problem is worsened because financial records are not as widespread, detailed, or audited. This requires financiers to fall back on simple financial contracts and rough risk proxies for risk: debt-based financing secured through personal collateral as well as accumulated personal credit history of the borrower.

In the case of Islamic finance for MSMEs, the traditional constraints to MSME finance are present, but in addition the existing work-around (collateral-based debt) is not an option. Given the sensitivity of profit and loss sharing contracts to moral hazard and information asymmetry, it should not be surprising that Islamic finance, particularly profit and loss sharing contracts, have thus far failed to reach MSMEs in a significant way.

This is despite the fact that there are significant returns available in the MSME segment. A growing body of evidence reveals high unexploited returns to capital in this segment, offering rates of return significantly larger than many other markets³. Moreover, the segment offers attractive diversification to the risks of financial institutions concentrating in government debt and real estate, whose limits and risks have been highlighted by the recent financial crisis.

The MSME segment clearly offers significant opportunities for Islamic finance institutions, but new solutions are required to take advantage of it.

² According to Khan's "How Islamic is Islamic Banking" paper, Al Rajhi is the world's largest bank (located in Saudi Arabia), and Kuwait Finance House is Kuwait's largest Islamic bank. Dubai Islamic Bank is the largest bank in the United Arab Emirates while Bank Islam Malaysia is Malaysia's largest Islamic bank.

³ For example, de Mel McKenzie & Woodruff (2008) on microenterprises in Sri Lanka, Banerjee & Duflo (2003) on SMEs in India.

Resolving the Challenges in the MSME Segment: EFLRI

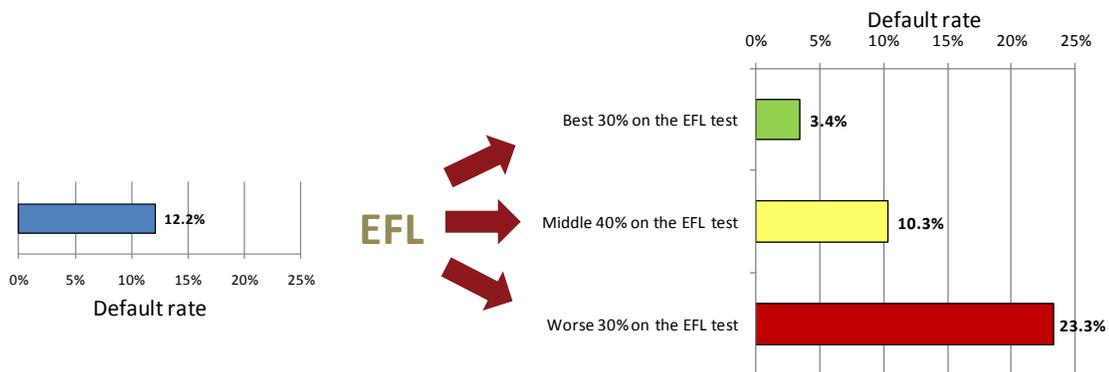
The *Entrepreneurial Finance Lab Research Initiative* (EFLRI), located at Harvard University's Center for International Development, was established to develop and test new tools that overcome the problems of information asymmetry and moral hazard in order to unlock access to finance in the MSME segment. Based on the requirement that these tools have low transaction costs and few information requirements, the EFLRI has pioneered a set of psychometric tests to directly measure a potential borrower's entrepreneurial ability and honesty. The former makes it easier to identify good business (i.e. those with high entrepreneurial ability as revealed through the psychometric tests). The latter provides a direct measure of honesty that can help minimize the moral hazard problem since such entrepreneurs are intrinsically less inclined to cheat/hide profits and hence are more likely to repay loans and require less monitoring. These tools adapt proven assessments from the pre-employment screening industry and academic research in order to evaluate an entrepreneur's personality profile, cognitive characteristics, intelligence, honesty, and hard business skills. This evaluation mimics the evaluation of entrepreneurial ability and character which forms a central part of venture capital due diligence, but performs it in an objective automated low-cost way, making it feasible for large-scale MSME finance.

These tools have been pilot tested by EFLRI across Africa and Latin America on over 2500 entrepreneurs, from microenterprise owners to small enterprises to fast-growing medium-sized firms. These pilot results show that these psychometric tools can achieve the same predictive power as credit scoring models used by commercial banks on corporate borrowers (see box 1), but with the key difference that corporate models require well-formatted audited financial statements which many high-potential SMEs do not have, while psychometric assessments require no financial statements, collateral, or credit history and therefore are much easier to implement and allow access to a much wider set of potential entrepreneurs who would likely be excluded under traditional financial screening methods.

BOX 1: EFL Pilot Results

The discriminatory power of credit scoring models is most frequently measured by their AUC: area under the receiver operating characteristic curve. Our benchmark is credit scoring models used by commercial banks on corporate borrowers. These models use ratios from audited financial statements to predict default, and typically achieve an AUC of 0.7 to 0.75. EFLRI pilot data show that our assessment achieves an AUC at the upper-end of this band: 0.75. Moreover, this is accomplished without using audited financial statements, which most MSMEs do not have, and instead only relies on the entrepreneur's responses to the automated test.

What does an AUC of 0.75 mean in practical terms? Consider one of our samples of existing clients, which included 12.2% defaulters. These were clients the partner bank had certified as good, but of those, 12.2% ended up entering into some type of arrears. What is the risk splitting power of the EFL test on this group? This is illustrated below:



Therefore, a bank that originally could only identify a group of clients with a 12.2% default risk can now use the EFL tool to identify a sub-group of very low-risk entrepreneurs to fast-track their applicants and more aggressively graduate them to greater financing and services, identify a normal risk sub-group to offer products on usual terms and achieve a lower their overall default rate, and identify a high-risk sub-group to undergo greater due diligence and evaluation, as well as potentially send to training programs.

The bottom-line pilot results from EFLRI's first-round pilots are a **21-40% reduction in default** and a **15 to 50% increase in net profits** on simulated implementations of the tool across pilot partners. And most importantly, this is only considering improvements in risk analysis in currently served segments. The potential of the tool to open up new currently un-served groups of entrepreneurs is an even more significant opportunity.

While EFLRI's psychometric screening tools can greatly reduce risk and increase access for traditional lending to the MSME segment, this technology is doubly relevant for Islamic finance.

First, as discussed above, the problems of asymmetric information and moral hazard are more severe for Islamic finance contracts. The future success or failure of the MSME, rather than seizable collateral, is the central component of risk for profit and loss sharing contracts, yet traditional risk analysis tools for MSME finance can't evaluate future potential in a low-cost scalable way. And given the lack of collateral as well as the scope for fraudulent reporting of business performance to reduce reported profits, character and honesty of the entrepreneur are even more central to risk for profit loss contracts than traditional debt contracts. But if the only way to evaluate these dimensions is through long subjective relationship-building that will eliminate all but the largest segments of the market as the transaction

costs become prohibitive. EFLRI's risk tools allow for a low-cost systematic evaluation of ability and honesty, relaxing the problems of asymmetric information and moral hazard.

Not only do the EFLRI tools help overcome these constraints to the scale up of profit and loss sharing contracts, but those types of contracts are in fact the natural complement for this type of screening tool. Traditional screening tools only evaluate downside risk, but our tools evaluate ability, future potential, and trustworthiness, and therefore both the downside risk and up-side potential. They are therefore best suited for contracts that share in that up-side value rather than only a fixed interest rate. Better identifying and capturing up-side value in the MSME segment can compensate for the downside risk and losses and make a large portfolio of MSME profit and loss sharing contracts not just feasible, but highly profitable for financial institutions. Thus these tools are not only highly applicable in the Islamic Finance segment but, once developed and effectively scaled up in that market, are likely to lay the foundations for exciting innovation in financial markets and entrepreneurship development globally making bringing Islamic Finance in the forefront of successful and socially valuable innovation.

V. THE WAY FORWARD

After having successfully demonstrated the value of its tool and having started its scale-up in traditional banking markets in Africa and Latin America, EFLRI is now seeking to launch a series of learning partnerships with Islamic finance institutions to take advantage of this tremendous opportunity. There are a series of pilot stages that are possible that are outlined below. These just serve the basis of initiating a preliminary discussion and will be developed in more detail and for the appropriate context along with potential partners. We start with the most basic to more advanced forms of engagement.

- 1) **Test adaptation and proof of concept in the Islamic Finance segment.** This stage involves an adaptation of the EFL assessment to a particular culture, region, and market in the Islamic Finance countries, including translation and localization. This adapted assessment would then be given to samples of existing clients or new applicants in currently served market segments. The scores would not be used in the decision making process, but instead the scores would be collected and statistically compared to past or subsequent repayment performance. In order to achieve the necessary statistical power, samples are typically 500 to 1000 clients, including at least 200 'bad' clients with arrears. This pilot would allow EFL and the partner institution to both adapt the model to their particular context and market, and accurately measure its contribution to reducing risk in current market segments.
- 2) **Capitalizing on new market segments.** While the tools can help improve MSME lending for existing customer segments, it has even bigger value by allowing access to an untapped market – entrepreneurs who are excluded from traditional finance because they are unable to provide the requisite financial information and collateral necessary. In this stage our calibrated screening tool is used in combination with modified risk analysis in order to extend financing to new market segments that are currently not financed under traditional requirements. The tool is therefore rolled out on a pilot basis and used in the decision making of the client, opening up new market segments. Pilots of this type are currently underway across Africa, reaching thousands of profitable new clients.
- 3) **Combining with appropriate financial contracts.** This stage is likely of great interest to Islamic Financial Institutions since it embeds the EFLRI screening technologies in Islamically acceptable

and in fact highly desirable equity/profit and loss sharing contracts. In this stage the adapted and calibrated screening tool is applied with profit and loss-sharing contracts, where client performance is more closely monitored and up-side performance is shared by the funder. Using this tool in combination with such contracts will allow institutions to identify high-potential entrepreneurs, allow them to realize their potential and share in the high returns that are generated, more fully realizing the purest form of Islamic Finance.

- 4) **Examining community-level supply of entrepreneurship.** This stage is the most comprehensive and can either be conducted after the other stages or in tandem with them. It has the highest value since it offers a demonstration of the full value of the tool when combined with equity/*Shariah* compliant instruments as applied in the entrepreneurial space. This stage takes a broader view of the supply of entrepreneurship by evaluating how the tool combined with profit and loss sharing instruments can be used to unleash the entrepreneurial potential of an economy fully. It envisages doing so by identifying and bringing forward both existing and potential entrepreneurs not currently approaching funders for support, enhancing the sets of (more innovative) ideas that can hope to receive funding, and potentially using the tool to target training and support programs (so that those who under-perform in the tests can still be supported). This stage is comprehensive in that it would allow measuring both the financial and social returns on entrepreneurial development and growth of the SME sector on the overall economy.

In summary, by partnering with EFLRI to utilize these innovative assessments in combination with profit and loss arrangements with entrepreneurs, our partner will benefit from tapping into a large yet underserved market, providing them with huge potentials for portfolio growth. By employing *murabaha* and *musharaka* contracts, Islamic banks will benefit by diversifying their portfolios and utilizing a highly-demanded contract which is not offered by most competing institutions. Finally, partnering with EFLRI will provide an Islamic finance institution with the opportunity to offer a novel and lucrative financial product to the Islamic world and beyond while spurring development, innovation, job creation and growth amongst the regions' MSMEs, thus enjoying not only financial gains, but also providing an important social service.

For more details, please contact us at efl@hks.harvard.edu

APPENDIX 1: TENANTS OF ISLAMIC FINANCE

Islamic finance is an elaborate financial system based on the rules of Islamic law. According to Iqbal Zamir's summary of Islamic financial systems, in order for a transaction to be deemed in accordance with the *shari'ah*, it must adhere to the following basic tenants:

- *The prohibition of interest*: Interest, or *riba* is prohibited in all financial transactions. This is because interest is a "cost that is accrued irrespective of the outcome of business operations and may not create wealth if there are business losses" (Iqbal 1997, p.43). Islamic finance demands that lenders share in a clients' rewards and losses.
- *Risk-sharing*: Due to the fact that interest is not utilized in Islamic banking, the creditor and the borrower operate as partners and share in both the risks and returns of an investment.
- *Money is potential capital and is not a commodity in itself*: Islam's view on money is that it is not an asset in itself and that it only becomes capital when it becomes utilized with other resources to "undertake a productive activity" (Iqbal, 1997, p.43).
- *Prohibition of speculative behavior*: Speculative behavior that encourages transactions with extreme uncertainties, gambling and risk is strictly prohibited.
- *The sanctity of contracts*: All parties must uphold contractual obligations. Moreover, the full disclosure of information prior to signing a contract is mandatory in order to "reduce the risk of asymmetric information and moral hazard" (Iqbal 1997, p.43).
- *Investments must comply with the shari'ah*: For example, investments in alcohol, gambling, and other activities against the tenants of the *shari'ah* are not permissible in Islamic banking.

APPENDIX 2: ISLAMIC FINANCIAL CONTRACTS

1. *Murabaha Sale Contract*: The *murabaha* contract is probably the most popular Islamic banking product available today. It is an asset-based sale transaction used to finance goods needed as working capital. Typically, a client will approach the institution and inform them of the goods that need purchasing. The Islamic bank will then purchase this asset for the consumer and add a predetermined, fixed markup that the client will pay back in installments. The bank will continue to own the asset (and assume its risk) until the final installment is paid. With *murabaha contracts*, the consumer is responsible for negotiating all the key commercial terms with the seller of the asset, the cost of which cannot be altered at anytime during the duration of the contract. Typically, the size of this markup is determined "in relation to an interest rate index such as the London Inter-Bank Offered Rate, or US short T-bills rate, and is also a function of a clients' credit rating, the transaction size and the type of good being financed" (Zaher and Hassan 2001 p.160).
2. *Leasing (Ijarah) Contract*: In an Islamic leasing contract (which is typically used to finance equipment and machinery), the client leases a product from a financier for a predetermined cost. The duration of the lease must be explicitly stated in the contract and it must be clearly understood that the finance institution retains ownership of the asset and that it is responsible for its maintenance. The contract is terminated once the asset ceases to provide the client the service for which it was rented, or if the leasing contract comes to an end.

One may also choose to enter into an *Ijarah wa-Iqtina* contract, where the client has the option to own the asset at the end of the lease. In this case, the bank purchases the asset and leases it

to the client for an agreed-upon cost, and the client will continue to make payments towards the purchase of the asset.

3. *Qard Hassan: Qard hassan*, or a “benevolent loan,” is a type of loan where only the principal has to be repaid to the lender. In fact, this loan is often considered to be a type of charity. Certain religious scholars allow for a small administrative fee to be charged in order to cover the administrative costs associated with providing clients with this service. For example, The Islamic Development Bank Jeddah in Saudi Arabia charges 2 – 3 percent for *qard hassan* loans in order to cover their costs (Ajaz Khan 2008).
4. *Profit and Loss Sharing Contracts (Musharaka and Mudaraba):*
 - a. *Musharaka*: A *musharaka* contract is literally a partnership between the client and the financing institution. In this contract (which can be employed for both assets and working capital), both parties share in profits or losses according to a predetermined ratio. This contract type is similar to a joint venture as “both parties provide capital for a project which they both may manage” (Zaher and Hassan 2001, p.165).
 - b. *Mudaraba*: With this contract, one party acts as the financier and the other party acts as the manager who executes the project. The profits associated with this project are then distributed according to a predetermined ratio and the losses are borne entirely by the financier.

A *mudaraba* contract is similar to a western limited partnership, as one party contributes capital and the second runs the business. In the case of a loss, “the bank earns no return or a negative return on the investment and the agent receives no compensation for his effort” (Zaher and Hassan 2001, p.165).

References

- Banerjee, Abhijit and Esther Duflo. 2003. "Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program." BREAD working paper.
- De Mel, Suresh, David McKenzie, Christopher Woodruff. 2008. "Returns to Capital in Microenterprises: Evidence from a Field Experiment." *Quarterly Journal of Economics* Nov 2008. Vol 123(4): pp. 1329-1372.
- El-Hawary, Dahlia Anwar, Wafik Grais, Zamir Iqbal. "Regulating Islamic Financial Institutions: The Nature of the Regulated." *World Bank Policy Research Working Paper* No. 3227 February 25, 2004.
- Honohon, Patrick. 2007. "Cross Country Variations in Household Access to Financial Services." Presented at the World Bank Conference on Access to Finance, Washington, DC, March 15th 2007.
- "Islamic Finance Set to be \$2TR Industry Globally within 5 Years." *MENA News* May 25th 2010. < http://www.menafn.com/qn_news_story_s.asp?StoryId=1093339150>
- Iqbal, Zamir. "Islamic Financial Systems." *Finance and Development (World Bank Publications)* June 1997:pp. 42-45
- Karim, Nimrah, Michael Tarazi and Xavier Reille. "Islamic Microfinance: An Emerging Market Niche". *CGAP* August 2008 No 49.
- Khan, Ajaz Ahmed. "Islamic Microfinance: Theory, Policy and Practice." *Islamic Relief* February 2008.
- Khan, Ayesha and Tarun Khanna. "Is Faith a Luxury of the Rich? Examining the Influence of Religious Beliefs on Individual Finance Choices. Working Paper. 2010.
- Khan, Feisal. "How Islamic is Islamic Banking?" *Journal of Economic Behavior and Organization*. December 2010: Vol. 76, Issue 3.
- "Top 500 Islamic Financial Institutions – The Banker." *The Banker*. November 2nd, 2010
<http://www.thebanker.com/news/fullstory.php/aid/7640/Top_500_Islamic_Financial_Institutions.html>
- Zaher, Tarek, M. Kabir Hassan. "A Comparative Literature Survey of Islamic Finance and Banking." *Financial Markets, Institutions & Instruments* November 2001: Vol 10:pp. 155–199.