

IMPERATIVES OF FINANCIAL INNOVATION FOR ISLAMIC BANKS

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1. The Backdrop

Islamic banks are commercial banks which tend to comply with the religious injunctions of Islam. Whatever we name them, the functions of Islamic banks are and will remain essentially that of financial intermediaries (Kahf 1999). Islamic banks, however, are different from conventional banks. The guiding principles for an Islamic bank, in particular and Islamic financial system, in general is a set of rules and laws, collectively referred to as Shariah, governing economic, social, political and cultural aspects of Islamic societies. Shariah originates from the teachings of the Quran and its explanations rendered by the Prophet Muhammad, more commonly known as *Sunnah*. The Shariah prohibits interest or usury, gambling and *gharar* (undue risk taking), involvement in trading in such goods and services that are unlawful in themselves (El-Gamal 2001). It also encourages risk- and profit-sharing in the sphere of financial activities as ‘the essential principle of interest-free banking is profit/loss sharing’ (Metwally 1997: 954).

Interest free Islamic banking, in modern setting, is comparatively new proposition that began in the seventies when the first of its kind was established in the social sector in Cairo, named the Nasser Social Bank (Ahmed 1995). Dubai Islamic Bank, the first modern private sector Islamic bank, was established in 1975 in Dubai, UAE. An international development bank called ‘Islamic Development Bank’ based in Jeddah started operating in the same year, followed by establishment of several other private sector commercial banks mainly in the Middle East and North Africa. Prior to these initiatives, there are evidences of earlier efforts to mobilise and invest savings on the basis of interest-free principles in Egypt and Malaysia during the 1960s (Ahmed 1995).

Unlike highly developed financial markets which have relatively short history, commercial banks have long history of existence accepting ‘deposits from households and making loans to economic agents requiring capital’ (Allen and Santomero 1998:1463). The essential role of commercial banks still remains that of financial intermediaries. They channel savings from surplus sector to deficit sector for investment. An Islamic society will need services of financial intermediaries as much as any other society. But the religious injunctions does not allow an Islamic society to benefit from a financial intermediation based on charging and paying interest or, broadly speaking, *riba*, which is explicitly prohibited. The emergence of Islamic banks is, therefore, a reflection of the commitment to offering an alternative to this conventional interest-based financial intermediation in the society.

The emergence of interest free Islamic banking during the last three decades can be considered a financial innovation. The first reason for its being an innovation is that it offers the service of a financial intermediary without paying and receiving interest, the linchpin of the existing financial system. Islamic banks have been able to mobilise large amounts of deposits that were otherwise untapped in the Muslim communities (Wilson 1997). Edwardes (2000) considers the emergence of Islamic banking an innovation under the category of ‘religious innovation’. Another example in this category, as he mentions, is ethical investment. The second reason is that the financial techniques used by Islamic banks are modernised versions of those

modes suggested by the jurists in the earlier periods. Contemporary experts and scholars have extensively improved on those original jurist modes to match them with current financial environment and rising challenges within which Islamic banks are operating (Kahf and Khan 1992). *Murabahah*, as practised by present day interest free banks, is a case in point. Third, Islamic banking is also an example of supply side innovation, as changes in the supply condition may lead to innovative products being offered (Mishkin and Eakins 2000). The demand for interest free banking services has always been around since inception of decolonisation of certain Muslim countries. But the long awaited idea of an Islamic bank has been materialised once the technical know-how developed in this regard and supply side conditions are met properly.

Islamic banks have been providing the society with effective financial intermediation for the last three decades. However, in order to achieve smooth continuity in current profitability and future growth, it is imperative for interest-free banks to study the issue of having to remain innovative in the market. It is this issue which serves as the subject matter of the current article that is detailed in the following pages.

2. The Problem

Islamic banking industry has gone a long way in a rather short span of time and according to some estimate, is growing at 'an annual rate of 15 to 20 percent per year' (Zaher and Hassan 2001: 166). However, the current available literature suggests that there has been too little progress in innovating financial techniques for interest free banks since those initial ideas were first put into practice (Al-Omar and Iqbal 2000). Absence of sufficient degree of financial innovation may pose a serious risk to the competitiveness of interest free banks in the fast changing financial market (Naser and Moutinho 1997). On the other hand, a considerably large volume of literature is available on innovation in conventional financial institutions. All financial institutions in general and banks in particular have undergone profound changes in their business functions. As they are facing increasing challenges from other capital markets, financial intermediaries are still growing through the avenue of continuous financial innovation. As a result, in the global financial market, although the role of financial intermediation as an institution is declining, its functional importance is on the rise in several modern economies, for example, the USA (Scholtens and Wensveen 2000). Allen and Santomero (2001) have discussed the movement of banks away from the traditional activities to increasingly fee-producing activities, such as mortgage and insurance brokerage in some developed economies, particularly, in France, Germany, the UK and the USA.

Researchers as well as managers are now often engaged in 'new service development' ('the development of services which are new to the supplier') and 'offer development' ('the development of core service attributes and of the processes by which the service is evaluated, purchased and consumed') in their respective organisations (Johne and Storey 1998). The need for service development and innovation is also mirrored in an important work sponsored by Islamic Development Bank, where Iqbal et al. (1998) has identified lack of financial engineering and innovation as the topmost of the major challenges facing contemporary Islamic banks. The authors define the term financial engineering in its broad sense to include development of new financial products in all areas, e.g. resources mobilisation, placement of funds and risk management etc. They regard financial engineering as an 'art of designing financial products'.

One may suppose that a very small room is left for financial innovation in the Islamic finance because of the strict condition of Shariah compliance. For example, Bill Maurer refers to a discussion in the internet discussion group where one contributor 'wrote of several U-turns he thought Islamic finance needed to make in order to fulfil its mission' (Maurer 2001:10). Maurer also quoted that contributor saying 'exaggeration of the differences between Islamic and conventional economics may fade further'.

In response to such claims, it could be suggested that there is enough room for financial innovation within the framework of current understanding of Islamic finance, which is clearly distinguished from its conventional counterpart, as 'everything is allowed except that what is forbidden' (Moore 1997:26). This point is further supported by the well-known tradition of the Prophet (Peace be upon him) which allows Muslims to agree on their own terms and conditions so long as they do not contradict explicit Shariah rules and principles (*al-Tirmidhi, Kitab al-Ahkam*). Islamic law, in fact, is flexible within its ethical and jurist framework to accommodate new financing modes and institutions. It is, therefore, time to address the issue of developing innovative modes and techniques within interest-free banking framework which can contribute to making the market more efficient and more competitive.

3. Financial Innovation is the Imperative

In the light of the above discussion, it is clear that in the rapidly changing financial environment in which commercial banks are operating, it is only desirable that every player of this sector attempts to ensure both its short-term competitive and long term strategic presence. Financial institutions like any other firms will need to be continually innovative and create new ideas and new products (Kelly and Storey 2000). In the current study, the word financial innovation takes its meaning particularly relevant to Islamic banking industry. It denotes the effort of Islamic banks to exploit Shariah-compliant new ideas and possibilities in order to meet their increasing concern about product development and liquidity and risk management so as to ensure the value of the assets created by them as well as sustained growth and profitability for the business. Two issues are of particular importance in this respect to Islamic banks as explained below.

Product development is now an important area in which Islamic banks will need to focus its resources. The industry started mainly with basic *murabaha* transactions and since then has acquired some experience, investor as well as customer confidence and trained human resources. The way that lies ahead is to lead the industry towards a concentrated approach to developing new and unique products and improve the existing ones in terms of reduced costs and efficiency in delivery (Iqbal 2001). This will, in turn, ensure penetration and consolidation in new and existing markets respectively, and enhanced profitability.

The problem of risk management is among the most important issues for all banks, whether Islamic or not as well as for supervisors and regulators. Risk management can briefly be defined as the process that a financial institution goes through 'to identify the risks to which it is exposed, to quantify those risks, and to understand and control the nature of risks it faces' (Cumming and Hirtle 2001:3). The risks associated with an Islamic banking business range from credit and market risks to legal and operational risks. Absence of proper hedging instruments and non-standardisation of accounting practices only make the problem more precarious. The issue of liquidity crisis [inability of a bank 'to fund increases in assets and meet obligations as they come due' (BCBS 2000:1)], could also leave substantially damaging effects on a bank ranging from loss in profitability to a total collapse in the extreme case. This issue bears special relevance to Islamic banking. Absence of secondary markets for assets, short term maturity of most of deposits, and unavailability of lender of last resort facility are among the major reasons why Islamic banks should take special care of liquidity problems. Islamic banks need technically competent analysts and managers handling their risks and liquidity problems. An innovative approach towards developing solutions to these problems, therefore, is of paramount importance.

The subject is of high import for further development of the Islamic banking industry in general. Although the body of relevant literature is still growing, it can be safely assumed that Islamic banks will generally find it difficult to keep up the current pace of growth and catch on the pace of development of world finance industry, unless they understand and implement the concept of innovation in their activities in all areas.

The following are some points that will help understand the importance of further research and practical action in the subject area.

A. Innovation in the conventional financial industry

In a world of increased competition and enhanced information, financial organisations, like any business firms, are forced to review their existing products and develop new ones. Failure to do so may lead to a firm's exit from the industry. Back in the eighties of the last century, Tushman and Nadler said:

‘In today's business environment, there is no executive task more vital and demanding than the sustained management of innovation and change [.....] they must adopt innovation as way of corporate life’ (1986:74).

And the business world now points to the fact that development of ‘successful new products is probably the single most important issue facing managers today’ (Poolton and Ismail 2000).

Innovation has received considerable attention in the literature as having a crucial role in securing sustainable competitive advantage in today's business environment. Some writers have viewed innovation as a common tool with which a financial organisation could ensure comparative advantage in its business activities over others. For example, Devlin (1995) refers to the term innovation in the delivery system of financial services as ‘an opportunity to gain competitive advantage’ which would give, say, a retail banking service provider ‘the basis for differentiation’. Similarly, Prajogo and Sohal find that innovation has a ‘crucial role in securing sustainable competitive advantage in today's competition’ (2001:539).

The conventional finance literature has developed a large body of literature with regard to various aspects of innovation. In an extensive study of the available literature on New Service Development (NSD), John and Storey (1998) have included a wide range of research articles and books on this subject. In addition, most conventional banks and other financial institutions are having their own innovation and service development departments. Bowers (1985) finds in a survey that practitioners across the financial industry believe that service development is vital for future competitive strength.

In comparison to the conventional finance, Islamic finance literature on innovation is lagging behind. Although, scholars as well as bankers increasingly talk about innovation and further development within the industry in order to ensure future growth and current profitability, a consolidated body of relevant literature documenting various aspects of Shariah-compliant financial innovation and its process of implementation is need of the hour.

B. Changing nature of banking activities

The world financial industry is witnessing a significant change that is taking place in the traditional banking business. Commercial banks in the developed financial markets now find it harder to raise funds as cheap as before because of the outflow of deposits from bank accounts to high-paying capital and money market investments. In addition, they also no longer enjoy the near-monopoly in the loans market as corporate and small borrowers can arrange necessary funds from other than bank loans at a cheaper price either issuing securities to the public or approaching the finance companies [See Edwards and Mishkin (1995) for a detail discussion on this issue]. The responses of banks to these changed circumstances have been in their move towards non-traditional fee-generating activities including trading in derivative instruments and other off-balance sheet positions.

As part of the global financial industry, Islamic banks are also facing similar problems threatening their traditional advantageous positions as financial intermediaries. Although most of them are operating in countries where organised capital and money markets have not yet appeared as tough competitors, the wind of innovation and deregulation has also hit these countries and the transformation is in the making. Moreover, business firms in these countries can easily access the offshore financial markets and other foreign financial institutions operating locally. Therefore it is only wise for Islamic banks to foresee the changed circumstances in advance and prepare for a stronger competitive environment with innovative ideas and improved products.

C. Increased concern for risk management

In the face of declining scope for traditional banking, commercial banks have been desperate to find alternative avenues to better earning possibilities. Subsequently, they have taken on greater risks in offering much complicated services to clients and other off-balance sheet activities. With the rise in the degree and number of risks, banks now increasingly deal in derivatives [‘financial contracts whose value depend on the values of one or more underlying assets or indexes’ (BCBS 1994:2)] including options, forward futures and swap arrangements for hedging purposes. In addition, they also use other techniques for measuring and controlling risk including credit risk analysis, duration and gap analysis, trading in money markets, VaR (Value at Risk) analysis etc.. Basle Committee on Banking Supervision (BCBS) has already published ample literature as guidelines for identifying and managing these risks (See BCBS 1988, 1994, 1997a, 1997b, 1999, 2000, 2001, 2002).

Islamic banks also face risks associated with their business, some of them being in common with conventional banks and others are specific to them because of the nature of their transactions. Most of the Islamic banks, however, do not have formal risk management culture (Chapra and Khan 2000). Unlike conventional banks they have, so far, been unable to make use of derivative markets to hedge against certain risks because of unavailability of Shariah-compliant derivative products.

Academics as well as practitioners have recognised the need for a Shariah compliant risk management framework to evolve (Vogel and Hayes 1998). The issue of risk management gets even higher importance when Islamic banks wish to enter the western markets. The regulators in the western countries may argue that because Islamic banks are relatively new and their assets are normally illiquid, they are vulnerable to higher risks and therefore, should carry more, rather than less capital (Zaher and Hassan 2001). Islamic Research and Training Institute (IRTI) at Islamic Development Bank (IDB) has recently published an occasional paper on risk management issues in Islamic banks (Khan and Ahmed 2001), which identifies that the future survival and growth of Islamic banks partly depend of their ability to manage risks associated with their business.

Islamic banks, for the reasons stated above, need to develop what has been termed in Chapra and Khan (2000) as a ‘culture of risk management’. According to them, Islamic banks need to actively pursue the risk management issue and avail themselves of any techniques that are available at hand without waiting for many other questions to be answered by their Shariah boards. Some writers view option and futures as the starting point for developing derivative instruments for Islamic banks. Kamali (1999) argues that conventional futures and options are legitimate as long as their underlying assets are legitimate. However, so far scholars disagree on many issues relating to use of derivative products as hedging devices for Islamic financial institutions.

D. Tougher future for Islamic banking industry

When started their business in mid-Seventies of the last century, Islamic banks enjoyed monopoly in offering interest-free Shariah-compliant products to those who wanted to avoid interest-based financial activities on religious grounds. This monopoly lasted only through next decade before other conventional banks started offering similar products in the market. In some studies it has been reported that customers are generally satisfied with their (Islamic) banks. Naser et al. (1999) find that in Jordan more than 75% customers of the oldest and biggest Islamic bank, Jordan Islamic Bank for Finance and Development (established in 1970s) are either 'very satisfied' or 'satisfied' with their bank. As for the bank selection criteria, the study finds the bank's reputation is the highest important factor for customers to join the bank, followed by its commitment to observing Shariah principles (i.e. the religious factor). In another study conducted in Bahrain, Metawa and Almosawi (1998) report that the religious factor occupies the highest degree of importance in the bank selection criteria followed by return on investment.

The studies mentioned above point to Islamic banks' strong powerbase among religiously motivated customers. However, these customers are also concerned about other factors reported in the same studies. There is also a section of Muslim population who do not feel motivated enough on religious grounds to bank with interest-free banks. Instead, they may chose to bank with an Islamic bank on profitability and efficiency ground. We can see this in the Jordan case, where 75% customers of an Islamic bank also have accounts in conventional banks 'to diversify their investments' (Naser et al. 1999). In addition, many conventional commercial banks in Muslim countries find it profitable to run an Islamic banking unit or subsidiary to keep existing religiously motivated customers from switching to Islamic banks as well as attract new customers from the Islamic banking clientele. Furthermore, financial institutions from outside the Islamic world have also established dedicated Islamic banking units (see, for example, Moore 1997 and Warde 2000 for a discussion on this issue). Giant global banks like HSBC, Citicorp, ABN Amro etc. have now Islamic Banking units both in Muslim countries and in Europe.

The fact outlined above points to the challenges that Islamic banks are facing today. The imperatives of this situation are to design improved products in terms of reduced cost and efficient distribution for the clients who are now having wider choices than before.

E. Utilisation of full potential of untapped market

Muslims constitute over one fifth of the world population of 6 billion (Weller 2001). There are more than 55 independent countries where Muslims are in majority. Moreover, outside the Muslim world there live millions of Muslims in America, Europe, Africa and Australia. The mere size of Muslim population is indicative to the huge potential of the market. In order to cater for the financial need of over a billion people, we need thousands of specialised interest-free financial institutions and many of well-developed local and international markets. As compared to the need, the Islamic finance industry is utilising only a fraction of its true potential (Wilson 2000). A more professional approach has been recommended in Wilson (2000) to penetrate into the untapped market, as whatever easiest part of the market is available has already been covered.

Putting aside the religious zeal of the customers, Islamic banks can also find it profitable to offer their products to the non-Muslim clients. If they target the Muslim population only, they will not be able to attain general acceptability in some countries, like Malaysia and Nigeria, where non-Muslims constitute around 30 to 40 per cent of the population. This may lead to loss of potential business with a high proportion of the population. And Islamic financial organisations outside the Muslim world have to target whole

of the local population to achieve critical mass in the host country so as to compete with the local institutions. After all, everybody looks for better business deals available around. In some Muslim countries Islamic banks have experienced a rise in their market share from 2 percent in 1970s to around 15 percent by the middle of 1990s (Babai 1995). This rise in market share is meant to benefit not only the Muslims but also the humanity in general, given the ethical aspect of the business.

Bearing the above considerations in mind, Islamic banks need to design products in order to capture the hitherto untapped potential of Muslim savings and investment as well as to reach to all sections of a society, high net worth, middle or lower middle class, and Muslims and non-Muslims alike.

F. Developing a true face of Islamic finance

Although characteristics of risk sharing and variable returns distinguish Islamic banks from conventional banks in theory, heavy reliance on fixed returns modes describes the actual practice of Islamic banks. At the outset of theoretical development, Islamic banks were perceived to conform to one of the two models: the two-tier *mudharabah* model and the two-window model: (Iqbal and Mirakhor 1999). The two-tier *mudharabah* requires that both funds mobilisation and utilisation be on the basis of *mudharabah* (Siddiqi 1980, 1982; Chapra 1985; Uzair 1980) On the other hand, the two-window model requires the balance sheet of a bank be divided into two windows, one for the demand deposits with 100 percent reserves being held and the other for investment accounts with no reserve being held at the bank (Khan 1986). In both the cases, the major tool of operation is *mudharabah* or *musharakah*, the profit and loss sharing arrangements, on the both sides of the balance sheet. Although International Association of Islamic Banks (IAIB 1997) reports that the share of variable returns modes are in the rise, more than 70% of the total assets still represent banks' engagement with fixed returns modes like *murabahah* and its variants and *ijarah*. Profit and Loss Sharing (PLS) modes have been unpopular among practitioners as well clients for one reason or the other. One of the pioneering scholars has recently expressed his disappointment with current practices of Islamic banks (Siddiqi 2000). He initially envisaged Islamic banks principally working on the basis of Profit and Loss sharing modes like *musharakah* and *mudharabah* (Siddiqi 1983).

Some writers consider the perception of Islamic banks functioning principally on the basis of profit and loss sharing modes as an outcome of purely normative approach. This is, however, 'not warranted by the social sciences methodology of observation and interpretation' (Kahf 1999). According to this viewpoint, the present market situation warrants wise and profitable use of funds without unnecessary overemphasis on certain modes of financing. Even if we accept this view, excessive reliance on fixed return modes may cause loss comparative advantage for Islamic banks in the long run. Eventually, they would 'lose their distinctive features and tend to resemble conventional banks' (Errico and Farahbaksh 1998). Therefore, scholars have warned that if this trend of relying on fixed return modes remains, Islamic banks would lose ground against conventional banks as they are also offering products with similar, if not the same, characteristics. In order to gain competitive advantage and product differentiation, Islamic banks had better evolve mechanisms for successful application of variable returns modes (Tag El-Din 1999).

4. Ending Remarks

The imperative of financial innovation within Islamic banking environment is probably one of the few matters that would be agreed upon by almost all related to the industry. What remains to be done, however, is to adopt active strategies by banks themselves as collective organisations and scholars of Islamic finance and economics as individual researchers. Banks can make it their corporate strategy for the organisation as a whole as some of Islamic banks have already announced it, for example, Abu Dhabi Islamic Bank (see the bank's Annual Reports 2001). On the other hand, scholars having research interest in Islamic

economics and finance can significantly contribute towards achieving this aim. As they have written extensively on different matters of Islamic banking and finance in the past, they are expected to deliberate on this issue and guide the industry practitioners in the future as well. Shariah experts have also, historically, worked hard side by side with bankers to make sure that every aspect of banking business complies with norms laid down by the Shariah. The industry will never be able to do their business successfully without their active contribution in the time to come.

5. References

1. Ahmed, A. 1995, The Evolution of Islamic banking. *Encyclopaedia of Islamic Banking*. London: Institute of Islamic Banking and Insurance. pp. 15 – 30
2. Allen, F. and Santomero, A. M. 1998. The Theory of Financial Intermediation. *Journal of Banking and Finance*, 21, pp. 1461 – 1485
3. Allen, F. and Santomero, A. M. 2001. What do Financial Intermediaries do? *Journal of Banking and Finance*, 25, pp. 271 – 294
4. Al-Omer, F. and Iqbal, M. 2000. Some Strategic Suggestions for Islamic Banking in the 21st century. *Review of Islamic Economics*, No. 9, pp. 37 – 56
5. Babai, D. 1995. *ABANA Newsletter*. New York: Arab Bankers Association of North America (ABANA).
6. BCBS. 1988. International convergence of capital measurement and capital standards. Basel.
7. BCBS. 1994. Risk management guidelines for derivatives. Basel.
8. BCBS. 1997a. Core principles for effective banking supervision. Basel.
9. BCBS. 1997b. Principles for the management of interest rate risk. Basel.
10. BCBS. 1999. Principles for the management of credit risks. Basel.
11. BCBS. 2000. Sound Practices for Managing Liquidity in Banking Organisations. Basel.
12. BCBS. 2001. Risk Management Principles for Electronic Banking. Basel.
13. BCBS. 2002. Sound Practices for the Management and Supervision of Operational Risk. Basel.
14. Bowers, M.R. 1995, “An exploration into new service development: process, structure and organisation”, PhD dissertation, Texas A&M University
15. Chapra, M. U. 1985. *Towards a Just Monetary System*. Leicester: The Islamic Foundation.
16. Chapra, M. U. and Khan, T. 2000 Regulation and Supervision of Islamic Banks. Occasional Paper No. 3, IRTI, Jeddah: IDB
17. Cumming, C. and Hirtle, B. J. 2001. ‘The Challenge of Risk Management in Diversified Financial Companies’. *Economic Policy Review*, Federal Reserve Bank of New York, 7, 1 – 17.
18. Devlin, J.F. 1995. Technology and Innovation in Retail Banking Distribution. *International Journal of Bank Marketing*, Vol. 13 No. 4, pp. 19 – 25

19. Edwardes, W. 2000. *Key Financial Instruments*. London: FT Prentice Hall
20. Edwards, F. R. and Mishkin, F. S. 1995. The Decline of Traditional Banking: Implication for Financial Stability and Regulatory Policy. *FRBNY Economic Policy Review*, July, pp. 27 - 45
21. El-Gamal, M. A. 2001. An Economic Explanation of the Prohibition of Gharar in Classical Islamic Jurisprudence, in Iqbal, M. (ed.) *Islamic Banking and Finance: Current Developments in Theory and Practice*. Leicester: Islamic Foundation.
22. Errico, L. and Farahbaksh, M. 1998. *Islamic banking: Issues in Prudential Regulation and Supervision*. IMF Working Paper No. 30. Washington: International Monetary Fund.
23. International Association of Islamic Banks (IAIB). 1997. *Directory of Islamic Financial Institutions*. Jeddah: International Association of Islamic Banks
24. Iqbal, M. 2001. 'Introduction' in Iqbal, M. (ed.) *Islamic Banking and Finance: Current Developments in Theory and Practice*. Leicester: Islamic Foundation.
25. Iqbal, M. et al. 1998. *Challenges Facing Islamic Banks*, Jeddah: IRTI
26. Iqbal, Z. and Mirakhor, A. 1999. "Progress and challenges of Islamic Banking", *Thunderbird International Business Review*, Vol. 41, No. 4/5, pp. 381 – 405
27. Johne, A. and Storey, C. 1998, "New service development: A review of literature and annotated bibliography", *European Journal of Marketing*, Vol. 32 No. 3/4 Pp 184-251
28. Kahf, M. 1999. Islamic banks at the threshold of the third millennium. *Thunderbird International Business Review*, Vol. 4, No. 4/5, pp. 445 – 460
29. Kahf, M. and Khan, T. 1992. *Principles of Islamic Financing*, Jeddah: IRTI.
30. Kamali, M. H. 1999. "Prospects for an Islamic Derivatives Market in Malaysia". *Thunderbird International Business Review*, Vol. 41, No. 4/5, pp. 523 – 540
31. Kelly, D. and Storey, C. 2000. New Service Development: Initiation Strategies. *International Journal of Service Industry Management*, Vol.11 No.1, pp. 45 -62
32. Khan, M. 1986. Islamic Interest-Free Banking: A Theoretical Analysis. IMF Staff Papers, 33, pp. 1 – 27.
33. Khan, T. and Ahmed, H. 2001. *Risk Management: An Analysis of Issues in Islamic Financial Industry*. Jeddah: IRTI
34. Maurer, B. 2001. "Engineering an Islamic Future". *Anthropology Today*, 17(1), pp. 8 – 11.
35. Metawa, S. and Al Mossawi, M. 1998. Banking Behaviour of Islamic Bank Customers: Perspective and implications. *International Journal of Bank marketing*, Vol. 16 No.7, pp 299-313
36. Metwally, M. M. 1997. 'Economic Consequences of Applying Islamic Principles in Muslim Societies'. *International Journal of Social Economics*, 24 (7/8/9), pp. 941 – 957
37. Moore, P. 1997, *Islamic finance: A Partnership for Growth*. London: Euromoney Books

38. Naser, K. and Moutinho, L. 1997. "Strategic Marketing Management: the Case of Islamic Banks", *International Journal of Bank Marketing*, Vol. 15 No. 6, pp 187 - 203
39. Naser, K., Jamal, A, Al-Khatib, K. 1999. Islamic Banking: a Study of Customer Satisfaction and Preferences in Jordan. *International Journal of Bank Marketing*, Vol. 17 No. 3, pp. 135 – 150
40. Poolton, J. and Ismail, H. 2000. 'New Developments in Innovation'. *Journal of Managerial Psychology*, Vol. 15 No. 8, pp. 795-811.
41. Prajogo, D.I. and Sohal, A.S. 2001. "TQM and Innovation: a Literature Review and Research framework", *Technovation 21*, pp. 539-558
42. Scholtens, B. and van Wensveen, D. 2000. A Critique on the Theory of Financial Intermediation. *Journal of Banking and Finance*, 24, pp. 1243 – 1251
43. Siddiqi, M. N. 1980. "Muslim Economic Thinking: A Survey of Contemporary Literature". In Khurshid Ahmad (Ed.) *Studies in Islamic Economics*. Jeddah: International Centre of Research in Islamic Economics.
44. Siddiqi, M. N. 1982. "Islamic Approaches to Money, Banking and Monetary Policy: A Review". In M. Ariff (Ed.) *Monetary and Fiscal Policy of Islam* (pp. 25 – 38). Jeddah: International Centre of Research in Islamic Economics.
45. Siddiqi, M. N. 1983. *Banking without Interest*, Leicester: The Islamic Foundation.
46. Siddiqi, M. N. 2000. Islamic banks: Concept, Precept, and Prospects. *Review of Islamic Economics*, No. 9, pp. 21 – 36
47. Tag el-Din, S. I. 1999. "Fixed versus Variable Return Models: An Economic Analysis" in Proceedings of 8th Intensive Orientation Seminar on Islamic Economics, Banking and Finance, Markfield, UK
48. Tushman, M. and Nadler, D. 1986. Organisation for Innovation. *California Management Review*, 28 (3), 74-92.
49. Uzair, M. 1980. "Central Banking Operations in an Interest-Free Banking System". In M. Ariff (Ed.) *Monetary and Fiscal Policy of Islam* (pp. 211 – 236). Jeddah: International Centre of Research in Islamic Economics.
50. Vogel, F. E. and Hayes, S. L. 1998. *Islamic Law and Finance: Religion, Risk and Return*. The Hague: Kluwer Law International.
51. Warde, I. 2000. *Islamic finance in the global economy*. UK: Edinburgh University Press.
52. Weller, P. (Ed.). 2001. *Religions in the UK 2001 – 03*. Derby: Multi-faith Centre, University of Derby.
53. Wilson, R. 1997. *Islamic Finance*. London: Pearson Professional Limited.
54. Wilson, R. 2000. 'Quantifying the Islamic financial market size' in Siddiqi, A. (Ed.). *Anthology of Islamic banking*. London: Institute of Islamic Banking and Insurance.
55. Zaher, T.S. and Hassan, M. K. 2001. "A Comparative Literature Survey of Islamic Finance and Banking". *Financial Markets, Institutions & Instruments*, 10 (4), pp. 155 – 199.