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Abstract

Purpose – Aims to consider the empirical works on Islamic financial design in the light of room for improvements.

Design/methodology/approach – Looks at the many aspects of the Islamic financial system and suggests some prudent and sound regulatory frameworks which are deemed necessary.

Findings – Finds that the more services that can be offered by the financial intermediaries, the greater the chances of producing more specialized financial services and diversification of financial institutions.

Originality/value – Paves the way for future scholars to examine the systems from the angle of efficiency, effectiveness, rules and regulations, and the present lack of a recognized legal and accounting system.

Keywords Financial instruments, Banking, Regulation, Legal systems, Islam, Capital structure

Paper type Viewpoint

1. Introduction

Recently, there has been a rise of academic interest in the design of financial systems. Economists have centered their discussions on the theoretical insights into comparative advantage of bank-base or market-base systems in promoting long-run economic growth. Advocates of the bank-base systems emphasize that the systems are better at mobilizing savings, identifying good investments and exerting sound corporate control, particularly during the early stages of economic development and in weak institutional environments (Steinherr and Huveneers, 1993; Titman and Wessels, 1988). Others, however, emphasize the advantages of markets in allocating capital, providing risk management tools and mitigating the problems associated with excessively powerful banks (Levine and Zervos, 1998; Bartholdy *et al.*, 1997). Reflecting these schisms, policy-makers continue to struggle with the relative merits of bank-base vs market-base financial system in making policy decisions.

On the other hand, the Islamic financial design that has been gaining ground is without exception. Nonetheless, the areas of research on this matter are very limited. It only focuses on the permissible scope of activities for Islamic banks and other Islamic depository financial intermediaries. These activities are mainly determined by the regulations dictating the abolishment of interest rate in the financial system such as Kurshid Ahmad (2000), Chapra (1985) and Siddiqi (1982).

These studies produce many unresolved questions. Among others are: Why do they suggest a different design for financial system? Or more importantly, does this design matter? What are the determinants of this design? How does this design affect the principal-agent relationship? In the Islamic financial system design, how do the



financial institutions treat the agent? Does the design affect the corporate control? Does the regulation need to be amended?

Therefore, the design of the Islamic financial system should encompass primarily a myriad of institutional and market details, regulations and disclosure requirement. Indeed to manifest the design, prudent and sound regulatory frameworks are also needed. Hence, the regulatory framework for financial intermediaries should be tailored to achieve the different levels of economic development. How do these changes take place? Are these changes also aimed towards the changing roles of financial intermediaries and the emergence of new markets and products? Do the development of the legal and accounting standard have influenced on revolutionized roles of the financial intermediaries and market? And finally, how would all these changes affect the firm financing choices and capital structure?

The remainder of this paper is organized as follows. Section 2 presents the roles of the financial system to economic growth. It begins with the discussion on the financial institutions, in particular, the commercial banks, which are originally viewed as a lender to the firms. Later, new intermediaries, such as the insurance companies, thrifts and formal capital markets are expanded to provide services to firms and individuals. Section 3 examines the roles of regulation, legal and accounting towards financial development. The reason for various reforms in regulations, legal and accounting standards are to ensure the efficiency of the financial system. Section 4 discusses the mechanism of the financial system. The mechanisms are discovered to play an important role in the financial decisions and activities which include screening, monitoring, allocating of capital, credit rationing and debt restructuring. Section 5 examines the issues surrounding the financial design. Section 6 explains the effect of the design on the firm choice of financing and firms' capital structure. It leads to the discussion on the ways the financial systems solve the issues related to asymmetric information and the corporate control contests. Section 7 concludes with thoughts about the potential further research on this matter.

2. Why do we need to design the financial system?

The earliest form of financial design begins its focus on the changing roles of the financial intermediaries towards economic development. Economists, among others, Schumpeter (1911)[1], Gurley and Shaw (1955), Tobin (1956), Goldsmith (1969) and McKinnon (1973) have long believed that financial intermediaries are important factors in supporting economic development. Schumpeter (1911) shows that the services provided by the financial intermediaries, such as mobilizing savings, evaluating projects, managing risk, monitoring managers and facilitating transactions are essential for technological innovation and economic development.

Later, Gurley and Shaw (1955) highlight the vitally important intermediary which transmits funds by issues of indirect financial assets to surplus units (savers) and purchases of primary securities in deficits units (investors). In other words, the financial intermediaries play an important role in the credit's creation. Thus, the financial intermediaries affect economic development if investment funds are generated from direct finance or self-finance and are not accessible from indirect finance offer.

Then, Tobin (1956) prolong Gurley and Shaw propagation by extending his new view which states that the essential role of financial intermediaries, especially commercial banks, is to satisfy simultaneously the portfolio preferences of the borrowers and the lenders. Borrowers wish to expand their holding of real assets

beyond the limit of their own net worth. Lenders, on the other hand, wish to hold part of all of their net worth in assets of stable money value with negligible risk of default. Therefore, financial intermediation is crucial to the economic development as it permits borrowers who wish to expand their investment in real assets to be accommodated at lower rates and easier terms than if they had to borrow directly from the lenders.

Commercial banks have commonly been the first financial intermediaries during the early stages of economic development. Later, new intermediaries, such as the insurance firms, thrifts and formal capital markets are expanded to provide services to particular classes of savers. These developments were empirically observed by Goldsmith (1969) through his study on 36 countries over the period of 1860-1961.

The importance of traditional and new intermediaries is tested empirically by King and Levine (1993c). They constructed four indicators, i.e. the ratio of liquid liabilities, deposit banks relative to the central bank in allocating domestic credit, the credit issued to non-financial private firms divided by total credit and credit issued to non-financial private firms divided by GDP. The empirical evidence was tested on 80 countries with data range up to 30 years. The result shows that there is a positive relationship between a range of indicators of financial development and economic growth. Thus, the level of financial intermediation is a good predictor of long-run rates of economic growth.

Recent studies by La Porta *et al.* (2000), Beck *et al.* (2000), King and Levine (2000, 1993a,b,c) and Rousseau and Wachtel (1998) examine the relationship between financial intermediation and the different indicators of economic development. They use saving rates, capital accumulation and productivity growth as indicators of economic development. By testing the data of more than 60 countries, within 1965-1995, they prove that financial intermediary development and capital accumulation is less robust than the link between financial intermediary development and productivity growth.

Rousseau and Wachtel (1998), however, viewed the financial development differently. They found that a well-organized equity, debt and derivative markets may substitute the traditional role of financial intermediary as the financial system becomes more sophisticated. Therefore, they suggest that to search the causality relationship between the role financial intermediaries and economic performance should focus on historical periods when growing intermediaries dominate the financial sector. The intermediation intensity is measured by asset of commercial banks (CBA), the combined assets of commercial banks and savings institutions (BANKA) and composite that includes the assets of commercial banks, saving institutions, insurance companies, credit corporatives and pension funds (FIA). By using the data for five industrialized countries (i.e. United States, United Kingdom, Canada, Norway and Sweden) over the period 1870-1929, they find that an increase in the intensity of intermediation has positive effect on level of output. The results support the notion that a rapidly growing financial system plays crucial role in allocating resource and improving the economic development.

The emergence of new financial instruments and the development of information technologies in the last three decades bring about the changes in the roles and development of financial intermediaries. Technology sophistication has substantially reduced the cost of information and minimized information asymmetry. At this juncture, Allen and Santomero (1997) and Holmstorm and Tirole (2000) exert that, the issues surrounding the role of the intermediaries, such as transaction costs and

asymmetric information, are less relevant in explaining the development of the intermediaries but, new roles of intermediaries that consist of risk trading and participation costs are much crucial[2]. They argued that risk management has become a key role area of intermediary activity, because they facilitate the risk transfer and they deal with varieties of financial instruments and markets and thus putting the central concept of participation costs. The sophistication and the development of the financial market have minimized the transaction costs due to the efficient and cheaper information transmission[3].

3. How does the Islamic financial system be designed?

Financial economists have classified the financial system to be a bank-based and a market-based design. The market-based system emphasizes the importance of financial markets. Firms obtain external financing either from bank borrowing, from issuing bond or from issuing new shares (equity financing). While in the bank-base design, focus would be on the extensive role of the bank. The bank not only provide loan and at the same time holding the equity stake of the firm and be in the main board of directors.

Whether funds are to be derived from the market or bank, the design of Islamic financial system as compared to its conventional counterparts, the bank-base or market-base design, has two major distinctions. First it will devise the profit-and-loss sharing (PLS) mechanism and second the mark-up financing. PLS is formed from mudarabah funds (investible funds) and musyarakah funds (equity funds). Murabahah (mark-up financing) and Ijarah (capital leasing financing) are loanable funds with Islamic features. The conventional bank loans operate under the credit system, whereby financial interest is compounded and is subject to fluctuation. On the contrary, the Islamic financing, murabahah or ijarah, the concept of profit is in place of interest and agreeable by the borrowers as mark-up financing.

Some of the economic rationale for the superiority of PLS over the use of interest, quoted by Aggrawal and Yousef (2000), are described by International Association of Islamic Banks (1995, pp. 3-4)[4]: If interest is replaced by profit sharing, some imbalances are expected to be reduced. First, the return on capital will depend on productivity. Allocation of investable funds will be guided by the soundness of the project. This will in effect improve the efficiency of capital allocation.

Second, the creation of money by expanding credit will be created only when there is strong likelihood of corresponding increase in the supply of goods and services. In case the enterprise loses, repayment of capital to the bank is diminished by the amount of loss. Thus, in the profit-sharing system, the supply of money is not allowed to overstep the supply of goods and services. This will eventually curb inflationary pressures in the economy.

Third, the shift to profit-sharing may increase the volume of investments that translates into job creation. This is because the interest mechanism makes feasible only those projects whose expected profit is sufficiently high to cover the interest rate plus added income. This filters out projects which otherwise would be accepted in the profit-sharing system.

Fourth, the new system will also ensure more equitable distribution of wealth. Wealth would bring more wealth to its owners only when its use has actually resulted in the creation of additional wealth. This would in time reduce the unjust distribution of wealth which continued for decades during the interest regime.

Fifth, the abolition of interest, together with the restriction of forward transaction, as prescribed by the Sharia (Islamic Law), will curtail speculation measurably. But still, there will be secondary market trading common stocks and investment certificates based on profit-sharing principles. This will bring sanity back to the market and allow rising of funds for enterprises and liquidity to equity holders.

4. Principal-agent relationship

The Islamic financial system design produces two important types of financing, i.e. debt (murabahah) and equity (mudarabah) financings. These financings might produce a new relationship between principal and agent. In the following discussion, we will identify six forms of relationship: i.e. screening and monitoring entrepreneurs, credit rationing by banks, allocation of capital, liquidity creation and management of liquidity risk, monitoring managers and exerting corporate control and debt restructuring.

4.1. *Screening and monitoring potential entrepreneurs*

Islamic financing can be in the form of murabahah (mark-up-based scheme) financing or mudarabah financing (PLS). The mark-up-based scheme has a similar feature as debt contract and involves the similar screening and monitoring process. Nevertheless, it has several differences that make it uniquely Islamic:

- (1) it is commodity-based financing;
- (2) no penalty interest for past-due;
- (3) no compounding interest rate for the past due obligations;
- (4) no floating interest rate during the whole period of the contract; and
- (5) in case of bankruptcy, only the initial debt (including the mark-up) is recovered[5].

Thus this lead mark-up-based scheme has similar features as standard debt contract that it has the advantage of being optimal contract.

In mudarabah financing, banks funded totally the project or in the form partnership with the entrepreneur on the PLS basis. Islamic bank may require the entrepreneur to maintain minimum holding of certain assets relative to the business size, thus keeping its net worth high. When an entrepreneur has a higher stake of his net worth, his incentives to be dishonest will be significantly dropped because he has a lot to lose[6]. By screening and monitoring, entrepreneur aware that his utility depends on the utility of the borrower and corporation is the best solution. Besides that, borrower knows that he has being monitored and the lender can predict what action to be taken by the borrower. Thus, the entrepreneur will optimize his decision and this enhances the level of investment.

4.2. *Credit rationing by banks*

Banks may ration borrower in the presence of Basle accord capital requirement and asymmetric market. In the asymmetric market, credit rationing occurs when banks quote mark-up rate on loans and supply a smaller loan size than demanded by the borrowers. Stronger form of credit rationing and screening may occur; the banks prefer to evaluate the firm's project quality and project choice. Hence, credit rationing can also

be in the form of denying credit to some firms entirely. While the asymmetric information concerns the choice project base on its riskiness (safe or risky).

Alternatively, the combination of both the trustworthiness of the entrepreneur and the viability and usefulness of the project (i.e. towards the physical expansion of production and services) may encourage large and small entrepreneurs to venture into business with greater possibility of getting financing from the Islamic banking.

4.3. Allocation of capital

Financial intermediaries can minimize the cost of acquiring and processing information about investment, which are costly to be done by individual savers. Eventually, savings channeled through financial intermediaries are managed more efficiently. King and Levine (1993c) state that the ability to acquire and process information leads to higher economic growth because intermediaries capable of allocating funds to the most promising firm. In addition, financial intermediation can stimulate the rate of technological innovation by providing funds to entrepreneurs with the best chances of successfully initiating new goods and production processes. Here, the specialty of the financial intermediaries is to manage the deposit and at the same time allocate capital to entrepreneurs[7]. However, the role of financial intermediaries as monitors and information specialists, therefore financial intermediaries tends to provide debt.

If the allocation of capital is done based on the sharing of risk and profit, and then, the actual performance of the project, enterprise or the economy as a whole determines the return on capital[8]. Therefore, in this profit-sharing technique, which make the capital share profit according to its actually realized productivity. According to Khan (1995a,b), the actually realized return on profit is thus the price of capital, which will determine its allocation.

4.4. Liquidity creation and management of liquidity risk

Banks create liquidity by issuing liquid deposit claims against illiquid loans, and this to Thakor (1996) is known as qualitative asset transformation. Nevertheless, uncertainties, known as credit risk, may occur in converting assets into medium of exchange. The situation worsens due to transaction cost and information asymmetries, which slow down liquidity and intensify the liquidity risk. However, financial intermediaries enable investors to share these risks. The link between liquidity and economic development arises because some productive projects require a long-run commitment of capital. However, according to Bencivenga and Smith (1991), savers do not like to relinquish control of their saving for long periods. Thus, liquidity affects production decision. With the financial markets, savers can hold financial assets; equity, bonds or demand deposit, they can turn to cash or medium of exchange quickly and easily. At the same time, the market transforms those liquid financial instruments into long-term capital investment in illiquid production processes. In other words, with liquid stock markets, saver shareholders can sell their assets, while firms have permanent access to the capital invested by the initial shareholders.

The model by Diamond and Dybvig (1983) shows the superiority of risk-sharing provided by the bank. By offering liquid deposits to savers and choosing an appropriate mixture of liquid and illiquid investments, banks provide complete insurance to savers against liquidity risk while simultaneously facilitating long-run investments in high-return projects. Therefore, savers or shareholders can liquidate their asset while firms' capitals are sustained and not jeopardized. Nevertheless,

Kahane (1977) believes that capital requirement cannot deter the bank risk taking and may even intensify the problem, assert Besanko and Kanatas (1994).

4.5. *Monitoring managers and exerting corporate control*[9]

Outside creditors to the firm or outside investors do not manage firms on day-to-day basis because it is too costly for outside investors to verify project returns and have to rely on the financial intermediaries. Financial intermediaries may arise to alleviate the information acquisition and enforcement costs of monitoring firm managers and exerting corporate control. Thus, this may deter insiders to misrepresent project returns to outsiders. Furthermore, in the case that borrowers need to obtain funds from many outsiders, financial intermediaries can economize monitoring costs.

According to Diamond (1984), financial intermediaries reduce information and incentive problems by monitoring the borrower. Some monitoring takes place before a contract is signed and some takes place after the contract is signed. The former serves to reduce the proportion of bad loans and serves to improve the performance of a given contract. Therefore, monitoring is much effective to be delegated to the financial intermediaries. Bernanke and Gertler (1989, 1990) conclude that the reduction in monitoring cost can foster efficient and long run investment.

Diamond (1991) develops a model in which borrowers can choose between a bank and the financial market. In Diamond's model, some borrowers can substitute risky assets for safe ones at lender's disadvantage. Bank, however, resolve the asset-substitution moral hazard problem through monitoring. Nevertheless, incentive in the form of lower interest rate and high credit rating was given for borrowers who can repay its loan in any given period of time in the choice of safe project in that period. Thus, borrowers with better credit reputation will perceive a high present value of its net payoffs from future bank loans. On the other hand, borrower who defaults at any time is then forever excluded from the capital market or bank borrowing. Therefore, borrower with a good reputation will attach a lower value to choosing the risky project over the safe one hence has reached the reputation cutoff between safe and risky projects and thus bank monitoring is unnecessary. Diamond's model further indicates that borrower with promising credit reputation will approach bank and more mature borrowers with well-established credit reputation access the capital market directly.

In the case of Islamic banking, monitoring is essential in almost all form of financing because asymmetric information and moral hazard are not exception. Ahmed (2000) claims that depositor's preferences for using an Islamic bank may be due to religious or ethical reasons, while the investors of these banks do not necessarily have this motive[10]. Nevertheless, financing under *musharakah*, the capital owner has a right to enter into the management and hence have some control over the problems created by the informational asymmetry and moral hazards. *Musyarakah* financing is expected to ease the monitoring activities.

4.6. *Debt restructuring*

Debt restructuring will be one of the crucial roles of the financial system to ensure that economy will not easily succumb by the financially distressed firms. Firms react by restructuring their assets or liabilities. According to Asquith *et al.* (1997), firms in financial distress tend to make several options such as debt restructuring, sale of assets, merger and capital expenditure reduction[11]. However, firms with fewer tangible assets or less liquid assets, and lower capital prefer to use the debt restructuring.

Bank usually likes to renegotiate the debt if in the case of default when the cost of bankruptcy is larger than liquidation of entrepreneur's asset. This is done by either loosening or tightening the debt contract. The loosening of debt contract may take in different forms such as deferring the principal and interest payment, providing new financing and waiving covenants. While the tightening of debt contract may also take different forms such as accelerating the principal and interest payment, reducing lines of credit and increasing collateral. The banks are more prone to loosen the terms of contract when they hold secured position and tighten when they hold unsecured position.

Sabani (1994) develops a model in which banks accumulate borrower-specific proprietary information in the post-lending stage of the relationship. Such information provides incentives for the incumbent bank to protect the relationship by restructuring the debts of its financially distressed borrower. Berlin and Master (1992) assert that banks will tend to negotiate loan contract that have stringent covenants but will be willing to negotiate these covenants if warranted. Thus, one of the benefits of bank loan that was identified is on the ability of the loan to be restructured and thus interim-efficient outcome can be maintained and this ability is not available in the capital market. Berlin and Master (1992) indicate that firms likely to receive significant post-lending information prefer banks due to their relative advantage in restructuring ex post inefficient contract. Groton and Khan (1993) remind that the effect of risk taking has to be considered while renegotiating the loan. Thakor and Wilson (1995), on the other hand, focus on the possibility of tension between the benefit of bank financing, on the one hand, and the higher cost of bank financing due to bank capital requirement, on the other. Since an increase in the capital requirement, after the loan has been restructured, has caused the competitive loan interest rate rises. Nevertheless, if bank refuses to restructure the loan, it will reduce the bank's uniqueness in the credit reallocation. Both scenarios have similar effects and making capital market relatively more attractive.

Firms can also make debt restructuring through an exchange offer. It means that firms offer a package of cash and securities in exchange for some or all of its outstanding debt. However, this package cannot reduce the principal amount of public debt without the approval from shareholders, except through an agreement with debt-holders or tender offer that exchange the old debt for new securities.

Islamic banking offers *qadr hassan* (interest-free loan) financing in case of needs. Being in financial distress is one of the reasons for *qadr hassan*. The burden of cost of financing as discussed by Thakor and Wilson (1995) will eventually overcome. Nevertheless, *mudharabah* and *musyarakah* financing leave entrepreneurs with little possibilities to be in financial distress. This is made possible because the firm has less debt and can further resort to equity financing or can borrow from bank in the event of financial distress.

5. Islamic financial design and the firm capital structure

There are two important questions on how we could relate capital structure and financial design. How does a firm decide which source of financing to use at any given time? Can the financial institutions determine the firm's capital structure? The former question was partly answered by Diamond (1991) in the context to acquire debt in which a firm can choose between a bank and the financial market. In his argument, firms with promising credit reputations approach bank, whereas more mature firms with well-established credit reputations access the capital market directly.

Financial institutions are originally viewed as a lender to the firms. These original views lead into the discussion on the types of financial design desired in the economy. However, the lemon's problem (see, Akerlof, 1970) produces the imperfect loan market. Therefore, in channeling loans, according to Ritter *et al.* (1999), Steinherr and Huveneers (1993) and Stiglitz and Weis (1981), the financial institutions have to deal with incomplete and asymmetric information.

The amount of information available and the cost of acquiring the information, as suggested by Steinherr and Huveneers (1993), would depend on the principal-agent (lender-firm) relationship established. By allowing the banks to hold corporate equity, the agency cost of debt should be reduced since shareholders have no incentive to expropriate wealth for themselves. The financial institutions endogenously determine the firm's behavior.

However, on the firm's side, the conflict of interest exists among stakeholders. This conflict between shareholders and lenders may arise because they have different claims on the firm. Equity contracts do not require firms to pay fixed return to investors but offer a residual on a firm's cash flow. Nevertheless, debt contracts typically offer holders a fixed claim over a borrowing firm's cash flow. When a firm finances a project through debt, the lenders charge a mark-up that they believe is adequate compensation for the risk they bear. Because their claim is fixed, lenders are concerned about the extent to which firms invest excessively risky projects. For example, after raising funds from lenders, the firm may shift investment from a lower- to a higher-risk project. Equity holders tend to prefer that the firm invests in profitable but risky projects. If the project is successful, the lenders will be paid and the firm's shareholders will benefit from its improved profitability. If the project fails, the firm may default on its debt, and shareholders will invoke their limited liability status. In addition to the asset substitution problem between shareholders and lenders, shareholders may choose not to invest in profitable projects, if they believe they would have to share the return with lenders.

Nevertheless, the introduction of syariah principle would enable banks to be the equity holder of the firm and in the board of directors and management. This principle leads into the discussion on the new type of financial design desired in the economy and the choice of financing and the formation of the capital structure by the firm. The Islamic financial institutions would provide funds for investment in firms under the mark-up-based and PLS facilities. The former facility would bring higher profit to the firm if the mark-up rate is relatively lower than the return of investment. While the later would encourage firms and Islamic financial institutions to share their risk.

In conclusion, a shareholder can decide which source of financing to use at any given time. On the other hand, the financial design can affect information aggregation and the outcomes of corporate control contests. This can influence the firm's capital structure.

6. Conclusions

The financial indicators reveal that the more services that can be offered by the financial intermediaries will lead to more specialized financial services and diversify financial institutions. Bank-customer relationship is more on the basis of creditor to debtor that necessitate bank to screen, monitor and ration the debtor. With deregulation and liberalization allows universal banking that enables bank to hold equity in the firms or indeed being in the board of directors. The principles of PLS are interesting feasible Islamic financing methods that are gaining ground. These various

changes were the result of the diverse financial design that evolves in the economic system.

Future research should incline their interest on the efficiency and effectiveness of the systems. The question on the rules, regulation and accounting standards should persist on any of the study. Researchers should raise their concerns on what are the rules and regulations and the laws that should persist or reform if the designs to be effective, to co-exist or to be dynamic. The Islamic systems, which are seen to be the best alternative, have lack of complete legal and accounting system that to make it highly recognized. Thus scholars in these areas should delve in this matter.

No discussion on the financial design, as mentioned by Thakor (1996), was completed without a discussion on political environments and political economy of design. The types of ideologies that affect the operations of the system, the political inclinations and the ruling party agenda are some of the interesting issues that have been analyzed. Future analysis will then become complex and more challenging.

Notes

1. Were discussed in King and Levine (1993a, pp. 717-727).
2. Scoter and van Wiston (2000) argue that the risk management is not the only factor determines the role of financial intermediaries and persistent that the transaction cost and asymmetric information are still relevant in the financial intermediaries, even though technology information is available.
3. The technological revolution and enhancement has substantially reduced the cost of information and reduced information asymmetry.
4. See Aggrawal and Yousef (2000) for the critical views towards these assertions.
5. Constraints (2) and (3) are applied in case the customer is unable to pay.
6. This view is consistent with findings by Ross (1977) in asymmetric information model and Harris and Raviv (1990) in agency model.
7. The words banks, financial institutions and financial intermediaries are used interchangeably.
8. Elsewhere it is mentioned as profit loss sharing. Return base on real performance of the project, i.e. *ex-post facto* and not a pre-determined form for one party, an *ex-ante* assured return.
9. The monitoring activities will be upon the insiders (managers and key personnel) who access inside information. Monitoring can hinder insider trading that could affect the firm value. Monitoring could also deter misrepresentation by the insiders to potential investors. While monitoring in Section 4(a) refers to monitoring the project or firms.
10. This is also reflected in the fixed-income murabahah contracts. To deal with the slackness and dishonesty of the clients in mudarabah contracts, a fine is imposed by Islamic bank in case of arrears in repayment arise (Usmani, 1998).
11. The firms in financial distress in any two consecutive years, the firms profit before interest, taxes, depreciation and amortization is less than interest expense (EBITDA) defined and if in any one year, EBITDA is less than 80 per cent of its interest expense.

References

- Ahmed, H. (2000), "Incentive compatible profit-sharing contracts: a theoretical treatment", *Proceedings of the Fourth International Conference on Islamic Economics and Banking*, Loughborough University, Loughborough, pp. 561-73.

- Aggrawal, R. and Yousef, T. (2000), "Islamic banks and investment financing", *Journal of Money, Credit and Banking*, Vol. 32 No. 1, pp. 93-120.
- Allen, F. and Santomero, M.A. (1997), "The theory of financial intermediation", *Journal of Banking and Finance*, Vol. 21, pp. 1461-85.
- Akerlof, G.A. (1970), "The market for "lemons": quality uncertainty and the market mechanism", *Quarterly Journal of Economics*, Vol. 84, pp. 488-500.
- Beck, T., Levine, R. and Loayza, N. (2000), "Financial intermediation and growth: causality and causes", *Journal of Monetary Economics*, Vol. 46, pp. 31-77.
- Berlin, M. and Master, L.J. (1992), "Debt covenants and renegotiation", *Journal of Financial Intermediation*, Vol. 2, pp. 95-133.
- Bernanke, B.S. and Gertler, M. (1989), "Agency costs, net worth, and business fluctuations", *The American Economic Review*, Vol. 79, No. 1, pp. 14-31.
- Bernanke, B. and Gertler (1990), "Financial fragility and economic performance", *Quarterly Journal of Economy*, Vol. 105 No. 1.
- Chapra, M.U. (1985), *Towards a Just Monetary System*, The Islamic Foundation, Leicester.
- Diamond, D.W. (1991), "Monitoring and reputation: the choice between bank loans and directly placed debt", *Journal of Political Economy*, Vol. 99, pp. 689-721.
- Diamond, D.W. (1984), "Financial intermediation and delegated monitoring", *Review of Economic Studies*, Vol. LI, pp. 393-414.
- Diamond, D.W. and Dybvig, P.H. (1983), "Bank runs, deposit insurance and liquidity", *Journal of Political Economy*, Vol. 91, pp. 401-19.
- Goldsmith, R.W. (1969), *Financial Structure and Development*, Yale University Press, New Haven, CT.
- Groton, G. and Khan, J. (1993), "The design of bank loan contracts, collateral and renegotiation". working paper, National Bureau of Economic Research.
- Gurley and Shaw (1955), "Financial aspects of economic development", *American Economic Review*, Vol. XLV, pp. 515-38.
- Holmstrom, B. and Tirole, J. (1997), "Financial intermediation, loanable fund, and the real sector", *The Quarterly Journal of Economics*, Vol. CXII No. 3, pp. 663-91.
- Kahane, Y. (1977), "Capital adequacy and the regulation of financial intermediaries", *Journal of Banking and Finance*, Vol. 1, pp. 207-18.
- Khan, M.S. (1995a), "Islamic interest-free banking: a theoretical analysis", *Encyclopaedia of Islamic Banking*, Institute of Islamic Banking and Insurance, London.
- Khan, Z.A. (1995b), "Characteristics and structure of an Islamic Bank", *Encyclopaedia of Islamic Banking*, Institute of Islamic Banking and Insurance, London, pp. 111-16.
- King, R.G. and Levine, R. (1993a), "Financial and growth: Schumpeter might be right", *The Quarterly Journal of Economics*, Vol. 108, pp. 717-27.
- King, R.G. and Levine, R. (1993b), "Finance, entrepreneurship, and growth", *Journal of Monetary Economics*, Vol. 32, pp. 513-42.
- King, R.G. and Levine, R. (1993c), "Capital fundamentalism, economic development and economic growth", paper presented at the Carnegie-Rochester Conference Series on Public Policy.
- Kurshid Ahmad (2000), "Islamic finance and banking: the challenge and prospects", *Review of Islamic Economics*, Vol. 9, pp. 57-82.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W. (2000), "Investor protection and corporate governance", *Journal of Financial Economics*, Vol. 58, pp. 3-29.
- Levine, R. and Zervos, S. (1998), "Stock markets, banks, and economic growth", *American Economic Review*, Vol. 88, pp. 537-58.

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- McKinnon, R.I. (1973), *Money and Capital in Economic Development*, Brooking Institution, Washington, DC.
- Ritter, L.S., Siber, W.L. and Udell, G.F. (1999), *Principles of Money, Banking and Financial Markets*, Addison-Wesley, Glen View, IL.
- Rousseau, P.L. and Wachtel, P. (1998), "Financial intermediation and economic performance: historical evidence from five industrialized countries", *Journal of Money Credit and Banking*, Vol. 30, pp. 657-78.
- Sabani, L. (1994), "Market oriented vs bank oriented financial systems: incomplete contracts and long-term commitments", *Journal of International and Comparative Economics*, Vol. 3, pp. 279-307.
- Siddiqi, M.N. (1982), *Islamic Approaches to Money, Banking and Monetary Policy: A Review*, The Islamic Foundation, Leicester.
- Schumpeter, J.A. (1911), *The Theory of Economic Development*, Harvard University Press, Cambridge, MA.
- Steinherr, A. and Huveneers, C. (1993), "On the performance of differently regulated financial institution: some empirical evidence", *Journal of Banking and Finance*, Vol. 18, pp. 271-306.
- Stiglitz, J. and Weiss, A. (1981), "Credit rationing in markets with imperfect information", *American Economic Review*, Vol. 77, pp. 228-31.
- Thakor, A. (1996), "The design of financial systems: an overview", *Journal Banking and Finance*, Vol. 20, pp. 917-48.
- Thakor, A.V. and Wilson, P.T. (1995), "Capital requirements, loan renegotiation and the borrower's choice of financing source", *Journal of Banking and Finance*, Vol. 19, pp. 693-771.
- Titman, S. and Wessels, R. (1988), "The determinants of capital structure choice", *Journal of Finance*, Vol. 32, pp. 1467-84.
- Tobin, J. (1956), "The interest-elasticity of the transaction demand for cash", *Review of Economics and Statistics*, Vol. 38, pp. 241-47.

Further reading

- Aggrawal, R. (1981), "International differences in capital structure norms: an empirical study of large European companies", *Management International Review*, Vol. 21 No. 1, pp. 75-88.
- Beck, T. and Levine, R. (2000), "New firm formation and industry growth. Does having a market base or bank base system matter?" working paper, Domestic Finance, Saving, Financial Systems, Stock Markets, No. 2385, World Bank.
- Smith, C. and Watts, R. (1992), "Incentive and tax effects of executive compensation plans", *Australian Journal of Management*, Vol. 7, pp. 139-57.

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