CHAPTER TWO

A SURVEY OF THE THEORETICAL AND EMPIRICAL LITERATURE, HYPOTHESIS AND RESEARCH METHODOLOGY

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The purpose of this chapter is to focus attention on the huge and scattered theoretical and empirical literature that is related to money, financial development, monetary policy and economic growth. This chapter is divided into so many sections: The first section gives us an introduction, while the second section is concerned with the works that had been done by the well-known economists and economic writers. The third section studies the Islamic economic literature. Section four shows the hypothesis and objectives of the study. The fifth section is concerned with research methodology and sources of data. The sixth section gives the limitations of the study. Lastly, the chapterisation design is given.

2.1 INTRODUCTION

The survey of the theoretical and empirical literature is needed, and it is important to find plausible hypotheses to explain the relationship between money, financial development, structure and economic growth. The theory of money and finance is still lively debated by many economists, who are specialised in the field of the fundamental issues involved in the relationship between finance and economic growth in the developing countries, [*Gupta, 1986; p. 7*].[1] They have provided us with fairly completed and comprehensive reviews of theoretical as well as empirical literature. The real development is accompanied by the institutionalisation of saving and investment; and diversification of financial assets, which would in turn enhance the economic growth of a developing country, as a view of the financial structuralists consider the freeing the rate of interest [*Hermes, 1994, pp. 4-6*].[2]

The contribution of so many economists and economic writes to this area has focused on (a) explaining the process of financial intermediation and exploring its role in the economic growth, interpreting the causal relationship between financial development and economic growth, trying to find out a new empirical evidence in this regard [*Hermes, 1994, pp. 4-6*]. The main aims of the literature reviews are to justify the rationale of ensuring study, provide an overview of historical perspectives, to bring to the light the research trends and problem, critical awareness to the methodology employed helps in providing placement and direction for the study to be filled into existing knowledge, and to find out the hypothesis which explain relationship between financial structure and economic growth [*Gupta, 1986; p.2*], although some economists have investigated this relationship empirically and theoretically, to the extent that possible question of causality in this connection is yet not fully answered.

The financial institutions have different ways to contribute to economic growth, several eminent economic writers, explain their different views; Gurley (1967) has basic view was that, besides financial intermediation there are many other institutional resources available in the country through which real growth can be enhanced (taxation, foreign aid, self-finance by private firms, and government enterprise profits). Schumpeter (1934) did not study closely, the relationship between financial system and economic development, but assumed existence of commercial banks with ability to create purchasing power, and his views have been supported by the recent studies of Cameron (1967). According to Fry (1978), that, the theoretical framework in the field of the role of financial and economic development was not enough.

There is general observation by the economists that as per capita income of some countries increases; these countries usually experience more rapid economic growth in financial assets compare to their national wealth or national product. Developed countries whose financial assets have grown faster than their gross national product (**GNP**) have been cited as good examples of this general observation. Eckaus (1977), Galbis (1977). The theoretical debate has been well summarised by Meltzer (1969) and Stein (1970), until McKinnon (1973) and Shaw (1973) "*Liberalization School*" were introduced that, Shaw (1973) maintained that, expanded financial intermediation between savers and investors resulting from financial liberalisation i.e. high interest rates, increase the incentives to save, and investment raises the average efficiency of investment; financial intermediaries raise real returns to savers and at the same time lower real costs to investors by accommodating liquidity preference, reducing risk through diversification reaping economies of scale resulting in increasing operational efficiency and lowering information costs to both savers and investors through specialisation and division of labour.

However, McKinnon's argument is that besides highlighted the dangers of financial repression and argued the financial liberalisation case, in which money holdings and capital accumulation are complementary in the development process. Real interest rate is necessary to encourage agents to accumulate money balance and investment will take place as long as real interest rate doesn't exceed the real rate of return on investment. In the discussion to follow we throw the light on the theoretical and the empirical works that have carried out, and which we feel can give an indication of the country's performance; by examining some empirical works; we find that some economists investigated the performance and experience of developed countries, whereas some other investigate and study the performance of developing economies. In between it is found that another group of economists investigate the progress of different continents and experience of both developed and developing economies.

2.2 EARLY STUDIES

(A) Gurley and Shaw (1955, 1960, and 1967)[3]

The studies of Gurley and Shaw, all together, were focused mainly, on real aspects, the studies neglected financial assets that do not lead to modern financial structure, [*Gurley and Shaw, 1955; p.515*], and their studies have emphasised mainly on increase in allocation efficiency of saving-investment process brought by financial intermediation, thus, they presented a useful theoretical framework. They have analysed the importance of money and finance in relation to economic growth and development of less-developed countries (**LDCs**), as liquidity theory of money, they have explained how the real economic development is accompanied by financial innovations and primary securities become differentiated.

They have mentioned that financial assets can have indirect securities:

> "*obligations of financial intermediaries, including currency, demand deposits, savings deposits and shares, policy reserves, and similar claims.*" [*Gurley and Shaw, 1960, p.363*]; and primary securities: "*obligations of nonfinancial spending units, including government securities, corporate bonds and stock, mortgages, and various short-term and intermediation debt.*" [*Gurley and Shaw, 1960, p.364*].

Gurley and Shaw explicitly have stressed the importance and increasing role of the financial intermediaries: "*Financial institutions whose principal function is the purchase of primary securities and creation of claims on themselves*" [*Gurley and Shaw, 1960; p.363*], in the process of economic growth (the nature and causal relation between financial development and economic growth), and they argued that financial intermediation increases the amount of funds available for investment (credit-supply function to finance investment), they showed that sophisticated financial system of the developed countries also facilitates the flow of funds from savers to investors. Gurley and Shaw have studied the financial markets in relation to financial institutions, which consists the monetary system that is composed of policy bureau and banking bureau, the monetary bureau issuing the instructions to the banking bureau concerning money stock.

They have concluded that, there had to be some relationship between the financial development and economic growth, and noted that the accumulation of the capital stock through investment as well as domestic and foreign savings and channel them into productive sector:

> *"we have seen that the financial assets accumulate as income and wealth grow. Our suggestion is that such accumulation reflects division of labour in production, saving and investment, and intermediation. Specialization in the use of the productive factors generates a rising stream of income and rising stock of both real and financial wealth."* [*Gurley and Shaw 1967; p. 260*].

(B) Patrick (1966)[4] has introduced the concepts of demand-following and supply-leading phenomena, to describe the nature of the causal relationship between financial development and economic growth. His view was that in the less-developed countries there are lack of financial institutions which simply is an indication of demand for services, and termed it as demand-following, the phenomenon in which the creation of modern financial institutions and their financial assets and liabilities. He mentioned that the supply-leading response of the growing financial system presumed some automatically just the reverse of the demand-following phenomenon:

> *"phenomenon in which the creation of modern financial institutions, their financial assets and liabilities, and related financial services in response for demand for these services by investor and savers in real economy. In this case the evolutionary development of financial system is continuing consequences of the pervasive sweeping process of economic development"*, [*Patrick 1966; p.174*].

He has given less emphasis to supply leading and that of academic discussions [*Patrick 1966; p. 175*]. Also, he has taken the financial policy and financial institutions (he emphasized the efficiency of financial intermediation through the market mechanism in improving the allocation of scare capital to its productive uses), and the monetary authorities could also take steps to make financial assets more attractive to individual savers, since a portion of saving used relatively unproductively in the under developed countries and requires financial assets to re-allocate such saving so as to be more productive, and he suggested the use of post office saving in rural area to collect the saving from the small rural wealth and saving into financial assets form, and encourage financial intermediation for economic growth.

(C) Goldsmith (1969)[5] was one of the first to study empirically the financial development and with his financial structure view (Structuralists School), using a single equation model, he has used the ratio of financial assets to **GNP** as indicator of development of the nation's financial system and argued that every country has passed the primitive stage of economic development and financial institutions that characterised a country financial structure, which is determined by the combination of financial instruments and financial institutions. The materials on which his analysis presented are cross section and time series data on total assets of the main financial institution from thirty five developed and developing countries, for the period 1880 to 1963 and from 1860to1960, regarded justified only five developed countries and with intervals of three to twenty years (wars time); the model was able to explain less variation in financial interrelations ratio **(FIR):**

> *"financial interrelations ratio obtained by dividing the total value of financial assets in existence at one date by the total value of tangible assets plus net foreign balance, by the national wealth,"* [*Goldsmith, 1969, p. 26*].

And in the long-run there is no correlation between the rate of growth and real national product and financial interrelation ratio. Assuming that, the actual rate of inflation is a good proxy for the real rate of interest, which seems to be missing from the formula he could not get definite answer to the role of financial development and structure in economic growth [*Goldsmith 1969; pp.*

390-391]. Goldsmith concluded that financial development and economic growth were somehow interrelated. However, he could not establish the causal direction between two assumptions that: they differ in ability to combine factors of production and to utilise the assets acquired by saving and inheritance and the fact is that probably not many production functions are homogeneous, therefore, his results couldn't be considered a proper test of repressionists hypothesis, and the estimates were based on too high a degree of aggregation of the developing economies which could have masked significant findings.

(D) Wai (1972),[6] in his extensive study, he indirectly has tested the financial intermediation that positively affects aggregate savings, one of his main purposes was to add a new determinant of national saving namely, financial intermediation, and due to lack of penetration of organised bank lending in the rural economy, as well as into small-scale urban industry has been corroborated in massive empirical study of so many developing countries, he mentioned three major way in which efficient financial intermediation helps in development process: (i) collection of saving mortgage (ii) development banks are increasing in importance, as well as (iii) redistributing of wealth [*Wai, 197;, p. 31*]. He developed first a three equation country model using time series data of individual countries and in majority of the developing countries the financial intermediation appears to have had a positive influence in national savings; and the second one for cross section study used the data plus bank offices per a million population and gross saving in relation to **GNP (AF/Y)**. He found a positive and significant coefficient for **AF/Y** for seven countries out of thirty five developing countries for which he estimated the equation, and negative for Ecuador and Iraq; the regressions also included interest rates prices, growth rate per capital and net inflow of capital which were positive, but negative correlation between prices and net inflow of capital with gross savings rates. However, he considered his results for the Latin America to most satisfactory, (table no 23, p. 133). He believed that his vast and intensive study has shown the positive influence of financial intermediation on increasing savings ratio in developing countries.

(e) McKinnon[7] (1973) and Shaw[8] (1973) Hypotheses

The liberalisation school, or well known as McKinnon and Shaw hypotheses, both of them separately, using Gurley and Shaw theoretical framework have strongly, criticised the repression model on so many departments and as general in the 1970s the discussions were on the importance of financial development for economic growth concentrated on evaluation of financial market policies used in developing countries, and their approach as chiefly to analyse the role of money and finance in (shallow and lagging economies) and this is a clear idea of strongly favouring the Neo-classical who considered (output, labour, and capital) which are homogenous proportion of price-clearing market as mechanism of resources allocation in economy. They have approved that social welfare will unambiguously be higher in monetised economy than the barter system, McKinnon has stressed the needful of financial liberalisation to less developed countries (**LDCs**), Shaw has criticised the financial repression in these:

> "*Numerous decentralized economies with low level of per capita income and wealth have been attracted at times to development strongly that results in shallow finance*", [*Shaw, 1973; p. 3*].

And he mentioned the distortions of price interest rate, and foreign exchange that reduce the real rate of growth, he has argued that without financial deepening the financial system can not participate effectively in the development, [*Shaw 1973; p. 17*] and he has laid more emphasis to the role of financial bank in investment and growth, and he said the financial liberalization improves financial intermediation and contributes to the growth and McKinnon repression model as the economy of fragmented in world:

> *"modern fragmentation, therefore has been largely the result of government policy and goes beyond distinction between export enclave and the traditional subsistence sector"*, [*McKinnon, 1973; p. 7*].

They believe in liberalising financial policy which would lead to financial deepening in the country, stimulate saving and induce more investment opportunities, and both believe that an increase in the amount and efficiency of investment would follow financial liberalization, in the words of Shaw:

> *"Liberalization opens the way to superior allocation of savings by widening and diversifying the financial market on which investment opportunities compete for savings flows"*. [*Shaw 1973; p. 10*].

McKinnon stressed and advocated the money accumulation as he said:

> *"more precisely if the desired rate of capital accumulation (and hence saving) increases at any given level of income the average ratio of cash balance to income will also increase"*, [*McKinnon, 1973; p. 57*].

And increasing investment would follow financial liberalisation, and he mentioned that the demand for cash balance from individuals is positively related to income, real rates of interest and average of return on capital, also he has mentioned that the capital stock is positively related to the real rate of return on money holding, private saving was quite sensitive to real rate of return on holding of money, and indivisibilities were such that investment can be increased [*McKinnon, 1973; p. 67*].

McKinnon and Shaw have argued that raising interest rate could promote saving and investment in developing countries by alleviating financial repression: "*real rates of interest are high where finance is deepening*", [*Shaw, 1973; p. 8*] Shaw argued that debt finance was the relevant constraint, he advocated the financial liberalization and allied policies that intend in equalising income distribution, reduce the monopoly that follows from imports and bank borrowings. He argued that financial liberalisation and deepening contribute to the stability of growth in output and employment he stressed the importance of positive real deposit rates as an inducement to save in financial repressed economies. McKinnon using the Fisherian model has linked the external financing with high rates of interest:

> "*Paradoxically, the same high rates of interest of financial assets may be necessary to prevent premature modernization or mechanization through increased internal investment within an individual enterprise*" [*McKinnon, 1973; p. 32*].

In their studies, they inspired the role of financial development as a mean of acceleration economic growth of the developing nations. In McKinnon hypothesis, the self-finance economy with the indivisibilities in investment, are important and government does not participate in capital formation. Shaw views that by holding currency, demand deposit may proceed to a point where the willingness to hold these assets are no longer responsive for inflation.

(F) OTHER RELATED WORKS

Porter (1966),[9] the purpose of his paper was to show the connection is complex in which the expansion of banking system and real growth of the economy may be causally related. He explained the quantity of real savings to the existence of a greater number of bank offices that may evoke a greater volume of real savings; the new bank offices mobilised more successfully, those funds that represent savings [*Porter, 1966; p. 349*]. He mentioned some factors, which influence banks and size, and scope of the banking system upon growth operate principally through the saving-investment mechanism for ten years (1950-1961) of fifteen Asian and Middle-East countries plus to that Israel and Turkey, for which the data were accessible. Regarding the growth rate of banking branches during the period had increased by 10% (the Sudan: 12 branches in 1950, increased to 37 branches in 1961 with average growth rate of 10.8% and 100,000 of population per 3.27 branch offices). He took savings and investment along with enlarged banking system to improve the efficiency of allocation of new capital of a given quantity of saving and increase the ability of monetary authorities to stabilise the economy, and he concluded that the ways in which the expansion of the banking system and real growth of economy may be causally related, but also these connections are complex and nebulous.

Levhari and Patinkin (1968),[10] in their study paper which was mainly concerned with a comparative dynamic of the role of money, they have taken Tobin's basic analysis which has been rejected by them due to deficient, at the second and third part money as a consumer's goods and producer goods. In their conclusion, they suggested that the effects of monetary expansion differ in accordance with the use which the government make of the money which it print and they argued that all money is issued by the government and was therefore, of the outside variety, they have used the production function of the general form of: **H (K, L M, Y) = 0**; in particular that money was considered as a consumer's goods or a producer's goods. Which means money is consumption goods, as well as money are production goods. In their theoretical part, interest is considered to be pure inside money economy, and entire money supply is created by the credit expansion of the banking system. Finally, they have come to assume that money can fulfil both the roles of as consumption as well as a production goods, hence, truly the general model would analyse the total demand for money.

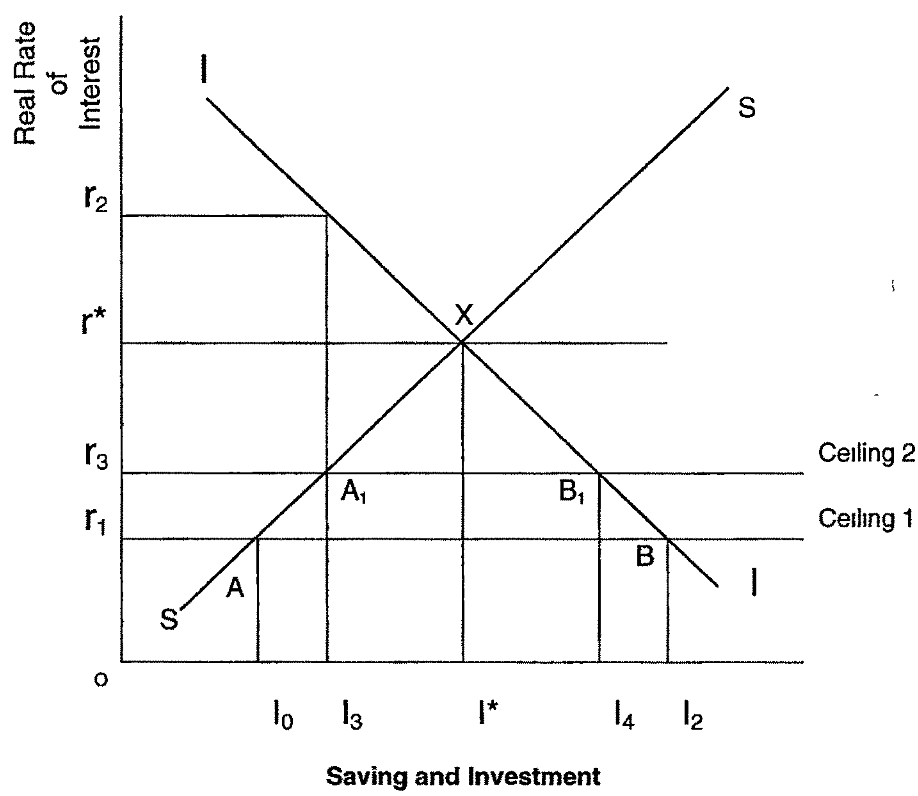
Wallich (1969),[11] in his extensive cross-section study of forty-three developed and developing countries, using single equation model, monetary system's liabilities to **GNP** (**M_1** as narrow money, and **M_2** as broad money) and taking average value for a period of ten years (1956-1965); he found that the relation between monetary expansion and growth of output is peaked, however the co-efficient of quadratic function implies that growth would be maximised with a 28% expansion of money supply (would be regarded as excessive) and he also found that growth is positively related to the degree of financial intermediation of the monetary system, and found that growth and inflation negatively related.

Trescott (1971),[12] in his empirical study, that has investigated the structure of the Thailand's monetary system in relation to the economic stability, and found that the total input increase has direct relation to the functioning of the financial system [*Trescott, 1971, p. 58*]. He used the statistical models namely, coefficient of determination (**R^2**) and Durbin-Watson statistic (**DW**) to analyse the data set from 1946-1969, that, include **GNP**, currency, demand and times deposits, saving bonds issued by bank of Thailand, bank reserves, foreign assets, commercial banks foreign borrowing, imports and central bank credit to the government. Four variables: demand deposits, currency, government revenue, and imports are assumed to be linear functions of money income measured by **GNP** in current prices for the period 1946–1955, and he used ordinary least squares (1956–1968) data, government securities as an endogenous variable. He has investigated the public apparent demand schedules for financial assets, and he observed that the growth in proportion of financial assets to income was more rapid since 1955; debts have grown more rapidly than **GNP**. His study was devoted to developing an analysis of simultaneous determination of money stock and money income. He reached to some conclusions: (a) phenomena marked with dummy variables (b) changes in interest rates do not appear to have had substantial influences on GNP (c) models provide a basic for judging the effect of the large amount of the central bank credit extended to the government and, (d) pattern of monetary development (1956–1968) was dominated by the balance of international payments. He mentioned that the monetary system has played part in the economics of stability, "*stability has resulted, in part, from the absence of more violent disturbances,*" [*Trescott 1971; p. 276*].

Mikesell and Zinser (1973),[13] the purpose of their paper was to review the theoretical and empirical literature on saving function in eighteen Latin American countries for the period (1950-1968; 1953-1968) and for Paraguay the data for 1962- 1970 period. They have reviewed most of the studies relating savings to income, and found that no consensus in support of any of the major hypotheses formulated and tested under steady growth, the savings rates tend to be proportioned to per capita income, and positively associated with the rate of growth of **GNP**. There was strong marginal prosperity to save, and they found substantial agreement among the investigators that savings in developing countries were negatively related to net capital imports, and positively related to exports, and responsive to real rate of interest and there appeared to be no consensus on the effect of taxation on aggregate saving.

Thirlwall (1974)[14] arguing mainly from Keynesian viewpoint, still thinks that moderately inflationary policies can accelerate economic growth in the developing countries, he felt that the relationship between inflation and growth to be inconclusive and the hypothesis has never been put to a through satisfactory empirical list so as to test that, he has used the Linear model and the non-Linear model, to testify the relationship between inflation savings and economics growth.

Figure No. 2:1



Adopted from Thirlwall 1994

Thirlwall, (1999)[15]: (A simple diagram (figure 2:2) can illustrate the McKinnon-Shaw-Hypothesis)" This figure, is standard classical saving and investment diagram which is showing saving as a positive function of the real interest rate and investment. With no interest rate controls, the equilibrium rate of interest would be **r*** and the level of saving and investment would be **I***. Now suppose that the government imposes a ceiling on the nominal deposit rate for savers, giving a real rate of interest of $\mathbf{r_1}$, this would mean that saving is $\mathbf{I_1}$, and on classical assumptions that prior saving is necessary for investment, this also constrains investment to $\mathbf{I_1}$. If there was no ceiling on the loan rate of interest, the banks could charge interest rate $\mathbf{r_2}$ to investors and the gap between $\mathbf{r_1}$ and $\mathbf{r_2}$ would give substantial profits to banks, which they could use for various forms of non-price competition, at $\mathbf{r_2}$ there is no unsatisfied demand for investment funds. Suppose, however, that the interest rate ceiling applies to loans as well as deposits, this means that saving is still $\mathbf{I_1}$, but investment demand is now $\mathbf{I_2}$ and there is an unsatisfied demand for investment fund equals to be **AB**. Credit will have to be tendency for banks to favour less risky projects with lower rate of return. This will lower the overall productivity of investment. If the interest rate ceiling is raised so that real interest rates rise to $\mathbf{r_3}$, this encourages saving from $\mathbf{I_1}$, to $\mathbf{I_3}$, this leads to more investment, credit rationing is reduced and the productivity of investment rises. Hence, saving and investment will be optimal and credit rationing will disappear. When the market is fully liberalised and the real rate of return is left to find its market level at **r***, [*Thirlwall, 1999; pp: 341-342*].

Bhatia and Khatkhate (1975),[16] in their investigation to the relationship between financial deepening and real growth in eleven selected African countries; i.e. Ghana, Ivory Cost, Kenya, Madagascar, Malawi, Mauritius, Morocco, Nigeria, Sierra Leone, Tunisia and Zambia, which they were selected on the basic of the availability of relevant data, which were not uniform, but for the period of 1960 1970 as an indication, they took the ratio of total financial assets (currency, bank deposits, shares government securities and even credit of trade) to **GNP** and per capital **GNP** and due to unavailability of **GNP** in many of these countries, the authors used figures for gross domestic product **GDP**. They made an effort to test the relationship between the ratio to total financial assets to GDP and the per capita GDP in the selected countries. The available data did not reveal any systematic pattern in either cases of financial intermediation and were sometimes positively and sometimes negatively correlated with the level of per capita **GDP**. At one end there are countries, such as Ivory Coast, Kenya and Zambia where the increase in financial intermediation appear to have been coterminous with the growth in per capita **GDP**. While at other end countries, such as Ghana, Mauritius and Sierra Leone, where, despite of the growing level of per capita **GDP**, financial intermediation has not increased perceptibly or has even declined. In between these two extremities are the remaining countries, where financial intermediation is sometimes positively and sometimes negatively correlated with the level of **GDP**, [*Bhatia and Khatkhate, 1975; p. 140*].

Jao (1976)[17] has tested the hypothesis that the economic growth was positively related to financial deepening and repressed by real balance effect as a factor of input release labour and capital from exchange and in his empirical test he has used the regression equation and coefficient, first he applied the statistical analysis in thirty four countries, from the year 1967 to 1973, undifferentiated and latest he applied the statistical analysis for developed and less developed (**LDCs**) countries separately, using M_1 M_2 and got the correct signs at 1% level and found the economic growth and financial deepening may be seen not in causal, but in reciprocal relationship.

Galbis (1977)[18], in his paper; he has studied the theoretical postulates of new approach rest on same (stylized) assumptions of theory for (**LDCs**) developing economics were fragmented (coexistence of old and new technologies) the large number of modern production processes require comparatively large lump-sum investments; the importance of self-financing of investment as financial intermediation was in rudiment state imposes serious financial constraints on extend investment in new technology, and the role of the governments in **LDCs** needed to be taken into accounts. Proliferation on regulations based on misguided principles has contributed significantly to the malfunctioning of the financial system, and to the inefficient use of real rate of return. He came to a conclusion that the improvement in the financial intermediation those brought equilibrium to the real rates of interest, shift the resources from the traditional low fielding investments to investments in the modern technological sector may result in a dramatic acceleration in the rate of economic growth, also he mentioned two consequences of financial disequilibria which he observed in various **LDCs**: (a) perpetuation of high rates of inflation (b) the establishment of some sort of credit rationing system (needed during the inflation, but the result was not encouraging). Hence his conclusion is sort of an agreement with McKinnon's (1973) hypothesis, though the reason behind it was different.

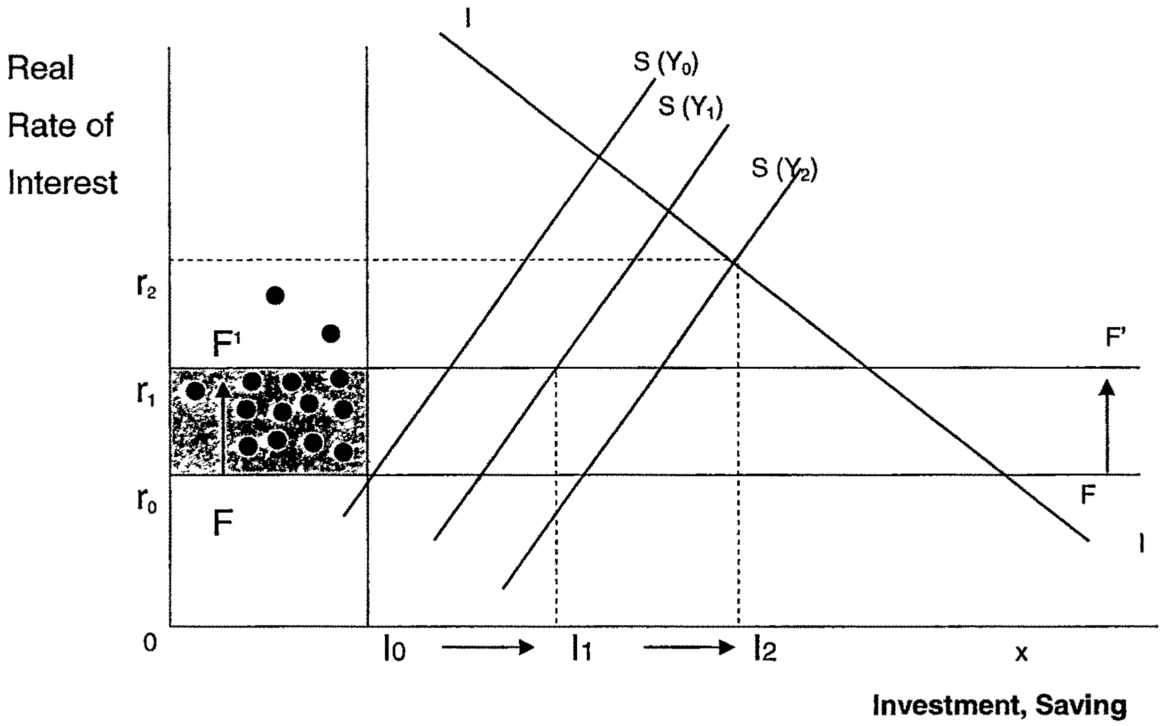
Fry's (1978)[19] paper (concentrated entirely in Asia) presents an empirical test of models of finance in economic development that developed by McKinnon

(1973) and Shaw (1973) has estimated a pooled regression equation for M_2 using time series data for ten Asian countries i.e. Burma (1963-72), India (1962-72) Korea (1963-72), Malaysia (1963-72) Philippines (1963-72), Singapore (1965-72) and Taiwan (1963-72), in addition to them Pakistan (1963-72), Sri Lanka (1963-72) and lastly Thailand (1961-72) and he observed that financial conditions do influence savings and growth, and found that the expected real rate of return on deposits was deposits and highly significant, and this lend support to the repressionist hypothesis. In his conclusion of the empirical study, results reported show that the real rate of interest has a positive effect on domestics saving and economic growth in the Asian **LDCs** that have been analysed in the study and these countries achieved stages of financial development. They have highly sophisticated indigenous, non-institutional as well as modern financial systems. Hence he has predicted that his empirical test would reject McKinnon's complementary hypothesis and he has accepted Shaw's debt-intermediation view.

The essential elements of McKinnon and Shaw hypothesis (model) are shown in the following diagram (no. 2): Savings '**S** Y_o' at income Y_o is a function of the real interest rate. **F** represents the financial constraint taken here to consist simply of an administratively determined institutional normal interest rate, which hold the real rate and below its equilibrium. Actual investment is limited to Io, the amount of saving forthcoming at the fixed real rate of interest r_o. Raising the financial constraint from **F** to **F'** in the figure increases saving and investment. [*Fry, 1978; p. 465*].

<u>**Figure No. 2:2**</u>

Fry's Investments and Savings



Mathieson (1979)[20], in his paper (advocates the financial liberalisation school) he has examined the financial reforms and external capital inflows that must carefully coordinated with exchange rate policy, the initial nominal interest rate changes during the process of reform must create a positive real yields, and the rate of growth of domestic components of base money must be reduced at the beginning of the reform. He found that several developing countries that their exchange rate and financial reform could make it impossible for the monetary authorities to control growth of monetary aggregate and leading to monetary imbalances, he endorsed the analysis of repressed financial markets and detrimental effects on economic growth.

2.3 THE RECENT RELATED STUDIES IN THE 1980S AND 1990S

There are a lot of works done by so many economic writers that related to the investigation of the financial development and financial liberalisation in relation to economic growth in the developing countries. Although others have surveyed this literature in recent years (during the 1980s and 1990s), i.e. Jung, Greenwood and Jovanovic, Ikhide, King and Levine, Thirlwall and Warman, Niels Hermes, etc., as well as Islamic finance that could be a benefit to our study. In this portion we highlight the most contributions of their works, that some how related to our case study.

Fischer (1981)[21] has tested the repressionist school hypothesis and structuralism school hypothesis for forty developing countries, he uses the co-efficient of determination (**R^2**) to test the data from 1960 to1972, financial development variable was found to be signification (except the year 1962) and he states that:

> *"...the domestic saving within the respective countries had a greater influence upon capital formation in countries with low and stable inflation rates than in countries where rates of inflation were high and unstable..."[Fischer, 1981, p: 853]*.

His results support Patrick's (1966) suggestion about disaggregating countries according to their inflation experience. He uses a modified version of McKinnon's complementary hypothesis in order to test the structuralist school hypothesis. Government and foreign investment are exogenous but treated as being endogenous.

Kwarteng (1982)[22] in his review article that has been prompted by the works of Abdi and Nwankwo, respectively, that was elaborating and confirming the monetary characteristics of five African developing economies. These countries have financially repressed banking and monetary systems and a reform of interest rate policies is clearly called for. He has adopted Abdi's method of analysis to evaluate the banking systems in the two West African countries (Ghana and Nigeria) and compared them with the East African systems (Kenya, Somalia and Tanzania) using data of the years 1970 to 1979. He concluded that the two economists, Abdi and Nwankwo raise important questions about the role of banking system in the development process, and their interesting recommendations for the improvement of the performance of the banking system.

Jung (1986)[23], who has tried to find empirical evidence for the direction of the causal relation by using Granger causality test in his studied article. He took two measures of financial development i.e. currency ratio and monetisation variables for 56 countries of which 19 are developed countries. The causal direction of both the tests unidirectional and simple, one shows that financial development causes economic growth. He found that the less developed countries (**LDCs**) have supply-leading causality pattern more frequently than a demand-following pattern, he concentrated on less developed countries and found these countries with a higher-than average growth rate of gross national product (**GNP**) or gross domestic product (**GDP**) and would rather strongly associated with supply-leading phenomenon when the currency ratio is used as a matter of overall result, there was moderate support for the Patrick's hypothesis. He highlighted a close relationship between financial development and economic growth.

Greenwood and Jovanovic (1990)[24] stress the role of financial intermediaries in pooling funds and acquiring information that enables them to allocate capital to its highest value of use, allow the capital to be invested in safe, low-yielding investment or risky, high yielding investment. In their empirical investigation they have used a single model to address the issues of the link between economic growth and distribution of income, and the connection between financial structure and economic development. They emphasised the role of financial intermediation in stimulating output growth in endogenous growth framework. They also have emphasised that, financial institutions have better access to information to profitability of the investment projects than individuals; since they emphasis in financial institutions are attracting financial resources and allocating them to projects with highest yields. This again due to the prominent role played by banks in accessing information, as it would attract the savers and promotes economic development. Under these assumptions savings contribute to higher economic growth if they are channelled through a well-developed and highly efficient financial sector that is able to choose the most efficient investment projects.

Abebe (1990)[25] in his paper, studies the theoretical accounts of the savings and investment process, and he examines its applicability to Africa, then followed detailed examination of the characteristics of banking system in twenty-eight least developed African countries that includes the Sudan, adds to that the mobilisation of funds and the policy reforms necessary to make the banking system more operational and effective. He has suggested flexible interest rate policies. He concluded that, in most of the African least developed countries, the role of the financial intermediaries in the growth process is neglected, and the official attitude to resource mobilisation has been extremely less partly due to foreign resources inflows and partly due to the inexpensively rediscounting terms and facilities provided by the central bank. [*Abebe, 1990; p.75*]. The central bank must be responsible for evolving the sound financial Infrastructure required for rapid development by developing institutionalization of credit, instruments and markets. In his works, he remarks that the monetary authorities should then pursue a discretionary and flexible interest rate policy. He remarks that:

> "*the monetary authorities should then pursue a discretionary and flexible interest rate policy that takes into account the rate of inflation, the market conditions and needs of the public when determining the interest rate level*, "[Abebe, 1990; p. 76].

Feldman and Gang (1990)[26], in their study they used a simple three sector model with non traded goods to trace the causal connection between financial policies and relative structure of policies in less-developed-countries and that the financial repression is a significant predictor and the interest rate controls on both loan rates and deposit rate are used to channel credit to politically worthy sector or specific projects. They have used the data for Korea, Thailand, India and Uruguay, for time period 1963, 1968 and 1975. They use nominal indexes (indices) real indexes and **M_2/GDP**, and conclude that the financial structure in particular the financial repression potentially important and they find support to their hypothesis that the financial repression depresses the prices.

Ikhide (1992)[27], the paper that he has presented, surveys the Nigerian banking system, which has witnessed a phenomenal growth, and his indicators suggest a reliance on banking sector for development. He has suggested the concentration of the government effort on specialised financial institutions, the commercial banks have to be used to reach rural dwellers, and he favoured the nationalisation of commercial banks for the rural development in Nigeria.

Roubini and Sala-I-Martin (1992)[28], in their study paper of the financial repression and economic growth, they have analysed the relationship between financial intermediation and growth by emphasizing the role of the government policy. They presented a model of financial repression, inflationary finance and endogenous growth, and present empirical evidence in a large cross-section of countries. They noted that high income tax evasion includes policy makers to repress the financial system and high inflation rate in an attempt to generate high revenue from the inflationary tax, in their words:

> "*We argued that one of the reasons why some governments may choose to repress the financial sector is that it delivers easy inflationary revenue since financial repression induces private agents to carry a larger stock of nominal money, the base for financial tax.*" [*Roubini and Sala-I-Martin,1992,p.28*].
>
> They have concluded that: "*... we presented some empirical evidence on the relation between measures of financial repression and growth for large sample of countries. We derived some variables that capture the degree to which the financial sector is distorted and confirmed the predictions of theory in that financial repression affects growth negatively, inflation rates and growth rates are negatively related and reserve ratios and growth are negatively related.*" [*Roubini and Sala-I-Martin,1992;p.28*].

Also they tested the significance of a regional dummy for Latin American countries.

Fischer, Stanly (1993)[29], in his empirical study, using a regression analog of growth accounting for cross-section regression of thirty two countries with available data, he found empirical evidence of the positive link between growth and macroeconomic stability (defined in terms of the inflation rate and its volatility, the black market exchange rate premium, the ratio of budget surplus to GDP, and changes in the terms of trade). His cross-sectional and penal data regressions broadly confirm the expectation. In particular, the negative correlation between the overall budget deficit and growth seems to be a robust empirical result, and the evidence suggests the causation runs from macroeconomic policy to growth. In his conclusion, he mentioned that:

> "*this paper supports the conventional view that a stable macroeconomic environment, meaning a reasonable low of inflation and a small budget deficit is conducive to sustained economic growth.*" [*Fischer, 1993; p. 509*].

King and Levine (1993b)[30] have analysed the process of financial development in relation to economic growth, and they have suggested the evaluated prospective entrepreneurship and mobilise saving to finance the most promising productivity enhancing activities, in their words: "*better financial systems improve the probability of successful innovation and thereby accelerate economic growth,*" [*King and Levine, 1993, p. 513*]. They found that there are theoretical linkages between financial markets and growth as well as the growth effects of financial system distortions. They stressed that:

> "*financial institutions play an active role in evaluating, managing and funding the entrepreneurial activity that leads to productivity growth. Indeed, we believe that our mechanism is the channel by which finance must have its dominant effect, due to the central role of productivity growth in development.*" [*King and Levine, 1993, p. 515*].

Empirically they used four kinds of evidence to link the financial development and economic growth: (a) Cross country analysis of 80 countries from 1960 to 1989. (b) Cross country regression using financial development indicators of five countries. (c) Firm level evidence on allocative reforms depend on financial reforms and, (d) they have investigated how successful of general policy reform depends upon financial development (structural adjustment). They have suggested that financial systems are important for productive growth and economic development.

Gibson and Taskatotos (1994)[31] in their comprehensive critical survey theory, which studied the financial liberalization that aims to review the rich growing liberalization process in developing countries. They have argued for the need of reforms to the financial system, and they draw most criticism to financial liberalisation, why markets failure might occur? And main problem related to effective demand and lack of connection between savings, investment and income. They emphasized two sets of arguments at microeconomics and macroeconomics levels.

Stiglitz (1994)[32] criticises financial liberalisation on the grounds that financial markets are prone to market failure. He suggests that: "*there exist forms of government intervention that will not only make these markets function better but will also improve the performance of the economy*" [*Stiglitz, 1994; p. 20*]. Hence, he has advocated the government intervention to keep interest rates below their market equilibrium levels.

Warman and Thirlwall (1994)[33] in their empirical study, they have tested the hypothesis theory of financial liberalisation for Mexico over a period of thirty years (1960-1990) and the purpose of the article is to analyse the relationship between real interest rates, saving investment and economic growth. Their hypothesis is that financial saving (**FS**) is positively correlated to the real rate of interest (**r**), using ordinary least squares (**OLS**) and cochrance-orcutt procedure (**CORC**) models for the same available data from the Banco de Mexico and Mexico National Institute of Statistics (**INEGI**). They found little evidence that movements in real interest rates have significant effects on the economic performance and true that financial saving seems to be positively correlated with the real rate of interest, also they found a positive correlation between credit given by banking sector and asset stock. They found there was a link between banks sector credit and the level of investment in the economy. Their study came to so many conclusions, that financial liberalisation will have a positive effect on investment, savings channeled through financial system, in their final conclusion there's no evidence that high real interest rates lead to higher total saving, investment, and economic growth. Their conclusion may be disappointing to the classical-financial liberalisation thinkers, and no surprise to the Keynesian persuasion economists.

De-Gregerio and Guidossi (1995)[34] have studied the financial development in relationship to economic growth. They have analysed the effects of financial market development on savings rates, the study emphasized the attention on the effect of borrowing constraints that the inability of individuals to borrow freely against future income on economic growth. They have suggested that the relationship between interest rates and growth is likely to be an inverted U-shape.

Ronald Clarke (1996)[35] in his studied article, he pointed out that the potential benefits the monetarist school suggests could be realised in a control system, positive and stable interest rate. He preferred effective financial institutions and macroeconomic stability should be requisite for policies catered growth not just financial development. He stated that the undefined equilibrium interest rates and liberalisation brings instability and will not solve all the problems of the financial intermediation and capital accumulation in the developing countries. He has concluded that there was core of truth in favour of the financial repression and suggested while raising the interest rates to low positive levels will make funds available for investment.

In her fairly extensive review of literature, **Levine (1997)**[36] states that:

> *"...the preponderance of theoretical reasoning and empirical evidence suggests a positive, first-order relationship between financial development and economic growth. A growing body of work would push even most skeptics toward the belief that the development of financial market and institutions is an article and inextricable part of growth process and away from the view that the financial system is an inconsequential side show, responding passively to economic growth and industrialization"* [*Levine, 1997; pp: 688–689*].

She explains what financial system does and how it affects – and affected by - economic growth, further also advocates the functional approach to understand the role of financial system in economic growth. In his evidence, she states that: "*Industries and firms rely heavily on external financing grow disproportionately faster in countries with well – developed banks developed financial system*" [*Levine, 1997, p: 690*]. She concluded that we would not have a sufficient understanding of long- run economic growth until we understand the functioning of financial system, later he concludes with some questions:

"While economists have made important advances, we heed much more research on financial development. Why does financial structure change as countries grow? Why do countries at similar stages of economic development have different looking financial system? Are there long – run economic growth advantages to adopt legal and policy changes that create one type of financial structure vis–a–vis another? Much more information about the determinants and implications of financial structure will move as closer to a comprehensive view of financial development and economic growth". [*Levine, 1997; p: 721*].

Arestic and Demetriads (1997)[37] in their paper, they have looked at the empirical evidence on the relationship between financial development and economic growth they argued that a time series approach on financial development is more fruitful than cross-section approach. They studied the relationship between stock markets development and economic growth and suggested that wanted further investigation. Specially, examining the impact of financial liberalisation on stock market volatility and the effects of the latter on investment and growth.

Elhiraika and Ahmed (1998),[38] in their empirical Study, they use data to examine the operations of the agrarian credit market, formal and informal, in the Sudan under condition of recent economic liberalisation and Islamisation. In addition to descriptive analysis, their study specifies and estimates a model of farm household participation in the credit market. The results of the survey show a substantial increase in formal borrowing in agriculture, but relatively low informal credit. They conclude that there is a need for enhanced institutional financial termination in the agrarian credit market as well as scope for the promotion of saving and credit associations among formers. In their words:

"An important policy implication of this study concerns the promotion of credit institutions specializing in saving mobilization and credit supply to agrarian household specifically. There is concern that the present enhanced role of formal financial intermediaries in rural credit markets is no more than a temporary measure of achieving the immediate macroeconomic objective of food security. For this reason, and given the evidence the agricultural as a whole could be a net lender... These could include voluntary savings and credit cooperatives, which could pool funds from surplus units for lending to deficit households so as to smooth seasonal discrepancies between farm household income and expenditure" [Elhiraika and Ahmed, 1998; p.25].

Rajan and Zingales (1998)[39] in their empirical evidence on the role of the financial sector in economic growth, they have reported from a cross-section econometric analysis of countries. The need of financing from abroad varies, and internal generation of finance through retained earnings and amount needed for further investment. Financial development reduces the cost of external financing and therefore promotes the growth of existing firms and industries depend on such financing. Financial development reduces financial markets imperfection. Financial development promotes the establishment of new firms and industries. Rajan and Zingales argued that country with developed financial market has a comparative advantage

Levine and Zervos (1998)[40] studied the empirical relationship between various measures of stock market development, banking development and long-run economic growth. They have differentiated between banking development and stock market liquidity. The reported cross-section of forty seven countries over 1976-1993 period that the initial level of both banking development and stock market liquidity were independently and positively related to subsequent growth rates, capital accumulation and productivity improvement. From their paper we got a note that banks provide different services from those provided by stock markets and that each can have independent effects on economic growth. Moreover, banking system is only subset of a developed financial sector whose other segments are also vital to growth in the current economy of globalization, and the economic history (Cameron 1967) findings and econometric studies were that the contribution of financial sector to growth rates is at least partly through the dynamic of economy especially in the external financing of new firms and new products.

2.4 REVIEW OF RELATED ISLAMIC ECONOMY LITERATURE

The era after the independence of most of the Muslim countries (in Africa and Asia) from their Western colonial rules in the late 1940s and 1950s, has opened the door for many Muslim scholars to study, investigate, and write so many books and articles on the Islamic financial institutions and banking system in addition to that the Islamic economy at their respective countries. But their works remained merely as theoretical one without any type of implementation, till recently so many Islamic banks and financial institutions started the most awaited portion i.e. the practical application of Islamic financial system with the help of these writings and books written by the Islamic scholars i.e. Dr. Siddiqui, M. Fahim Khan (1991), Monzer Kahf and Tariqullah Khan (1992), Mannan (1987), Khan and Mirakhor (1987), Usmani (1999), Muhammad Anwar (1989), Karsten (1982) and others. Also some valuable papers presented in the first International Conference on Islamic Economy that was held at Makkah al-Mukaramah in 1976; they have beeb presented by two hundred economists and Islamic jurists who attended it , [Ahmad, 1983]. We highlight some of their works in this section of our study.

Karsten (1982),[41] in his study paper, he has described certain steps that have been taken towards the Islamisation of financial systems in the Middle-East and Asian Muslim countries, he paid a particular attention to the Pakistani model, and he focuses on the abolition of *riba* and the alternative forms of financial returns such as profit-and-loss-sharing (**PLS**) system as well as provide of new financial instruments i.e. Mudarabah and others, and the problem arise in converting various banking sector. His analysis of the implications of shifting the banking system operations to **PLS** the paper notes the important distinction between a system in which **PLS** operations are optional and the one in which the conventional system, their working together effect on savings unambiguously positive, and the yield of the **PLS** system might to be higher for the depositors [*Karsten, 1982; p. 132*]. He has analysed the impact of the abolition of fixed interest rates and their replacement by the development and financial stability. He concludes that, so many unsolved issues in the practically handling of banking operations, foreign activities of banks, how attributes the profits and losses of borrowers to individuals sources of borrowed funds, and the profit-loss-sharing system.

Mannan (1987)[42] has discussed analytically the framework of the Islamic investment based on mudarabah, musharakah and murabahah concepts, since the Islamic economy is mainly an equity based rather than a loan based interest that is prohibited, however, Islam allows profit sharing and rental income, his theoretical analysis was supplemented by review of issuing Islamic bond and certificates of a few financial instruments, and the Islamic Investment companies (**IICs**) already have started issuing various securities for mobilisation of funds for financing development in the Muslim World. The objectives of his study have been to expose the nature and characteristics of various Islamic techniques of financing development and mobilisation of funds, review the nature and forms of securities issued by the Islamic investment companies and Islamic banks for financing development, and facilitate policy planning needed by the Islamic banks. In his conclusion, some points are emerged, that various types of financial instruments both short-term and long term can be issued for financing development, also he observed that there were lack of coordinated effort to mobilise funds and that due to the structure of Islamic securities market, and he has stressed on complete structural change and the operational strategy of the Islamic development bank and Islamic investment companies. Lastly the establishment of Islamic banks and financial institutions were significant event but the actual operations of local Islamic banks have turned out to be a special form of trading house, their establishment should be considered to be a logical outcome of such co-operation and could make a useful contribution to economic growth and development in the least developed Muslim countries.

Anwar (1989)[43] in his vast study, he has investigated and compared the principles of Islamic economy as against the Western system and he shows the application of the interest-free banking works in Iran, Pakistan, the Sudan and Egypt in particular as well as in the rest of the World. In his research methodology he has used the Western model as a basis for developing comparative analysis for obtaining an interest free macroeconomics model during the course of investing the modification of Western macroeconomics model into an interest free model several distinctions surfaced between the two system, and he found the interest free system need not have a positive relationship with the **PLS** ratio. He studied the critical issue of inflation that faced many developing countries, and the study demonstrates that the savers and entrepreneurs will obtain the same real rate of return; hence, incentives to save are preserved in the face of inflation in the interest free system and lead to steady economic development [*Anwar, 1989; p. 71*]. In the conclusion, he has remarked that the interest as an economic institution is opened to many objections, and in a just a society and the establishment of interest free structures designed to ameliorate the economic ills associated with a practice of interest. Islam offers its **PLS** system to generate maximum employment, promotes equity, improves efficiency, and stimulates economic development. His model is of closed economy and can be expanded into an open economy model.

Khan and Mirakhor (1990)[44] in their detailed work they study and survey the Islamic banking system and their sources of funds, the **PLS** systems, asset acquisition, then the instruments i.e. mudarabah and others. The significant advances in the development of the theoretical foundations of Islamic banking and finance, many issues remain unsolved i.e. the role of financing fiscal deficits. Despite the similarities the implementation of Islamic banking system in fact quite different in Iran and in Pakistan.

The differences between the Islamic banking and financial system in Iran and in Pakistan, due to the role of the concerned governments and the central banks, a great deal of caution in Pakistan, while the government of Iran borrows without paying any rate of return (zero), the government of Pakistan pays more than the **PLS** deposits of the bank. In their general conclusion, that they come to the adoption of Islamic banking and financial system has not led to the collapse of the financial system and they find rapid growth of the private sector in the Islamic modes in both Iran and Pakistan, they observe that, the government policies influence the asset acquisition, and it is difficult to judge the efficiency of Islamic banking in allocating the mobilised resources.

Fahim Khan (1991),[45] he has studied several Islamic modes of financing as alternative to the interest-based financing, his paper which has been carried out purely on theoretical grounds, concentrated on these five basic techniques of financing namely: Mudarabah, Musharakah, Ijarah (leasing), Bai'al-Salam and Murabahah (mark-up based), he discussed the economics of the financing techniques in two main dimensions i.e. their distinctive economic features, and their role in the economic decision-making and the macroeconomic implications. He explained the household consumption-savings choice, the firm's investment decision-making and financial intermediation, as well as he discussed the macroeconomic effects of various Islamic financing techniques.

He explained that, mudarabah and musharakah modes may not be conductive to generating demand-pull inflation in the economy, but Ijarah may be conductive to generate cost-pus inflation that is predetermined and may not go up. For the employment and elimination of poverty, musharakah and mudarabah are mainly meeting the capital need of human resources who have no capital, hence, they could engage in economic activities, and as he mentioned that: "*the emphasis of Islamic financing techniques are to finance production not consumption... musharakah and mudarabah can only be used to augment production and capital accumulation,*"[*Fahim Khan, 1999; p. 29*], then the increased supply of risk-bearing capital and new entrepreneurs may generate sources of economic growth.

Kahf and Khan (1992-1413 H),[46] their paper investigates and presents a survey of historical evolution of Islamic principles of financing and their elaboration by the Islamic Scholars at various times, since the efforts of the Islamic Scholars to identify alternatives to the interest-based system is the explicit prohibition and condemnation of interest by Allah, the Almighty. Their objective of the paper was to derive the principles of the Islamic financing from a survey of vast literature related to the rationalization, explanation, and justification of Islamic modes of financing that concentrates on an early works of Muslim scholars in the noble al-Qur'an, al-Hadeeth al-shareef and the Fiqh literature. They investigated the rationale modes of financing during the time of the Prophet (pbuh) and the need of finance, and the deal with benevolent lending and the postponing of repayment of loans. They have studied the contemporary literature of Islamic economics, the role and classification of various modes of financing as well as the issue of financial intermediation, and at the end, they investigated the justification of a return on financing in Islamic economic thinking. In their conclusion, and in the light of historical evidence, a comparative review of Islamic financing principles, they concluded that as a corollary, therefore, the Islamic principles of financing are considered to be based on the variable rate of return (profit sharing) and as a result, Islamic economists tend to describe the Islamic economy as a debt free as well as the immense financing potential of the sale-based principle and differences between the fixed nature of return on capital invested in sale, and the one invested in pure finance. Also they have concluded that, mudarabah is a principle of pure finance, whereas musharakah like trading, is investment in real transactions, regarding the debt default that does not improve neither quality nor quantity of the debt, therefore, it is unnatural and illogical, and concluded that, the principles of Islamic financing are capable of meeting the numerous financial needs

Usmani (1999)[47] in his detailed work, and in his capacity as a chairman or a member of the Shari'yah supervisory boards of a number of Islamic banks of the World, *[Usmani 1999; p. 11]*. He has discussed the modes of Islamic financing clearly which are supposed to be followed by Islamic bank and financial institutions, he explains the differences between capitalist and Islamic economy, then assets backed financing as most important features of Islamic financial system and he refuted the argument against it. He clarifies the principles of Shariyah governing regarding the Islamic investment fund, plus the principle of limited liability and he concludes that the work and performance of the Islamic bank and financial institutions as a realistic evolution, and their increasing number and their hung amount of capital are being established, then comes across the conventional banks that open windows for the operation of Islamic banking. And he gives the guidance and solution of many problems faced by the Islamic financial system.

CONCLUDING REMARKS

Here we would like to say that the empirical studies of all schools have been tested, but there were mixed-up results, and Fischer (1981) provides the most extensive work. Porter's branch-expansion helps in reaching the remote areas and assists in mobilising more funds (savings), while **Ikhide's** idea of nationalisation is not acceptable at the present scenarios and won't do in the case of our study, since, already the same process of nationalisation of all banks (1970) was done and yielded fruitless in the Sudan (no branch expansion, no new banks and less mobilisation of funds and that was due to socialist system). McKinnon and Shaw, and several other development economists do not approve the International Monetary Fund's (**IMF**) strategy of controlling inflation by restraining domestic credit and consequently reducing effective demand. They argued that cuts in domestic credit increases inflation, and therefore, they reduce aggregate supply faster than aggregate demand, and proposed an increase in rates of interest to level that ensures a positive real rate of return. In 1973 McKinnon and Shaw attributed the poor performance and growth in developing countries to financial repression. High reserve ratios, interest rate ceilings and directed credit programmes were viewed as sources of financial repression, the main symptoms of which were low savings, credits rationality and low investment. Liberalisation of financial markets was thus suggested, so that with the real rate of interest adjusting to its equilibrium level saving and the total real supply of credit would expand and induce a higher volume of investment. Economic growth would, therefore, be stimulated not only through the increased investment but also due to an increase in the average productivity of capital. **Allan Roe (1982)**[48] also has developed a four-equation model and an extensive results were obtained, and one of them. Financial intermediation ratio measured by Ordinary Least Square method; he took three geographical areas i.e. Africa Asia and Later in America. The major strand of thought prevent the growth and development literature some of them associated with the work of Goldsmith. As well the Goldsmith's work has provided us by a useful insight on development of size and structure of financial sector.

Related hypotheses, the previous discussed sketch of important role played by the financial institutions in the economic growth and development is still incomplete and research in this area continues to be important. In this respect there are some important pioneering works, which are considered related to our study, despite of so many differences specially, in the case of rate of interest that is prohibited and replaced by profit-loss-sharing scheme (**PLS**). All these above-mentioned studies are on specific aspects and are not well integrated in some system. There are no theoretical and empirical underpinning provided by most of all studies and very little empirical effort is made for examination of structural relationships exhaustively and comprehensively.

2.5.1 HYPOTHESES OF THE STUDY

As a result of the changes in real growth factors on one hand and changes in financial techniques on the other, the Sudanese domestic monetary system grows and is diversified into developing economy. Keeping in mind the last decade's conflict between the Sudan's monetary authorities and the **IMF**, the important changes in the Sudan's monetary system, in context of growth may be assumed as follow:

(1) Our study aims at examining the relationship between the working and the role of the monetary system in the economic growth of the Sudan, during 1980/81-2000/01 a period of two decades. We expect strong positive connections among these variables.

(2) The role of the central bank of the country i.e. Bank of Sudan (**BoS**), together with commercial banks, Islamic Banks, and non-banking financial institutions (**NBFIs**), which have been a pivotal institutions in the monetary system, would be investigated to ensure the development claims on these

institutions along with explaining the variables like income and rate of interest, (in our case study profit-loss-sharing scheme is applicable.).

(3) Our study strongly contends that the entire behaviour of the central monetary authority i.e. Bank of Sudan (**BoS**), itself is an endogenous.

(4) It is our contention that, the ratio of financial assets to real in the Sudan has been positively promoted institutionalisation of savings and investments.

(5) To examine the monetary system (policy, structure and performance), particularly, the banking sector has been benefited from economies of the scale in the financial resources management, credit and advances facilities of the banking system to various priority sectors of the economy, and hence, we contend, that, the structural reforms in this sector would go a long way to promote economic development, this matter would be investigated, using appropriate methodology.

(6) Empirically analysing the role of miscellaneous hypotheses like stability of demand for money ($\mathbf{M^d}$), and supply of money ($\mathbf{M^S}$) is positively and strongly influenced by the government borrowings. Interest rate (profit-loss-sharing), and its responsiveness to financial variables, stability of monetary base and the relative contribution of each constituents of monetary base would be investigated in the case of the Sudanese economy, and to recommend policy which can be useful to the Sudanese monetary system.

(7) Since the central monetary authority (Bank of Sudan) and commercial banks held large of public debt, we expect that central bank's holding of public debt to be sensitive to government need for budgetary financing (internal finance). At the end we strongly, contend that fiscal and monetary policies are inextricably inter-twined. Hence, debt management and fiscal changes are inseparable from macroeconomic stabilisation. In addition to that the balance

of payment analysis (exports and imports behaviour), we expect them to play a big role in foreign exchange rates and policies.

2.5.2 OBJECTIVES OF THE STUDY

There were intensive conflicts among the intellectual graduates, some with a socialist thoughts, and the majority with a free thoughts and vast Islamic thoughts, since the majority of the Sudan's population is Sunni Muslim, regarding to which direction the Sudanese economy in general and monetary system in particular to derive to? Since the economy was directionless with an unfavourable characteristics among the developing economies, hence, we decided to study the recent development of the Islamic financial system, which has a macroeconomic effects, that can be achieved with the Islamic financial techniques and modes, if implemented properly, where as the main object of our study is to examine the working of the monetary system and its role in all the macroeconomic growth consequences and in the economic growth of the Sudan. The study perspective is that, the growth and development process could have increased and high inflation (sharp prices rise) rate could be controlled, the unemployment and educated unemployment could be slashed and achieve full employment in the next decade, the equal distribution of national income and wealth, and development process, and the benefit from the healthy financial system will help the producing sectors. In brief, the main objectives of this study is to discuss and see the impacts of the Islamic financial system, its role in the increasing of banks number and branch expansion, and the steps taken to correct the system from all the mistakes of the past and achieve healthy economic development. Other objectives of the study are to provide the rationale and theoretical underpinning regarding the role of the monetary system in the economic growth of the Sudan, and to provide an enlightened treatment of the fundamental theoretical issues involved in the relationship between finance and economic growth.

2.6.1 RESEARCH METHODOLOGY

Varieties of sources would be consulted together for relevant statistical information on the real and financial variables in order to establish functional relationship and to test various hypotheses, we shall depend upon well-known statistical techniques, namely, regression and correlation, chief rent or the techniques that, it permits us to established not namely statistical connections, but permits to product the changes in dependent variables. It also allows us to test the statistical significance to ensure **t-test**; the statistical models are namely, linear and non-linear equations, ordinary least square (**OLS**), statistical criteria, Durbin-Watson (**DW**) and coefficient of determination ($\mathbf{R^2}$).

2.6.2 SOURCES OF DATA

The required statistical information (secondary data) has been collected from various sources, and has been used for analysis purpose, and that, from the following sources:

(1) Bank of Sudan (BoS), Annual Reports.

(2) Economic and Financial Statistics Review (Bank of Sudan).

(3) The Central Bureau of Statistics (**CBS**), Government of the Sudan.

(4) Economic Surveys (Fiscal and Real Sector), Ministry of Finance and National Economy, "Government of the Sudan".

(5) The International Financial Statistics, (**IMF**)

(6) The World Bank (**IRBD**) Annual Reports and World tables.

LIMITATIONS OF THE STUDY

The proposed study is being conducted primary with the objective of examining and analysing the working of the monetary system and its role in economic growth with special reference to the Sudan. This mentioned study suffers from a major methodological deficiency. It has so many limitations especially regarding the data sources. The unavailability of rate of return for several years especially after the Islamic banking system occupied the front seat that led to the abolishing of the fixed rate of interest but even though the profit loss-sharing ratios data are not available for years of our study. The rates of interest figures are not available, since the implementation of the Islamic banking system in the country. Also due to the current regime's secretive policies, the needful data are absent and the available data are somewhat not reliable or would rather to say are wrongly and intentionally given. This study would be a policy based descriptive study, and confined to formal sector (nothing is mentioned about the informal sector, that has been more supported by Prof. Awad (1971).[49] This study would be a theoretical as well as empirical strongly with analysis. Also this study is more concerned about the monetary policy with very less emphasise to fiscal policy.

2.7 CHAPTERISATION

This study is organized in eight chapters; as follows:

Chapter One: Is an introductory that is divided into two sections: Section (A) money, financial development and economic growth, and section (B) The Sudanese economy at glance.

Chapter Two: It is related to the survey of theoretical and empirical literature, as well as hypothesis and objectives and, research methodology and data sources, chapters' design and also to the limitations of the study.

Chapter Three: Deals with meaning, concepts and definitions of money and, the demand for money in the Sudan and its empirical aspects.

Chapter Four: Deals with the supply of money process in the Sudan and its relationships with the output and prices, as well as an attempt are made to examine these relationships among the monetary variables.

Chapter Five: Gives a clear picture into the Sudanese monetary system: structure and performance, plus to that the monetary-credit policy, financial markets and financial reforms.

Chapter Six: An Attempt is made to study the Islamic banking and financing modes in the Sudan prohibition of usury, and also the Islamic banks in the Sudan.

Chapter Seven: Deals with the monetary base: fiscal operations and government deficit management. In this chapter an attempt is made to examine the behaviour of fiscal and monetary variables and debit management operations.

Chapter Eight: Money and balance of payments analysis, which includes the exports and imports behaviour and their analysis.

Chapter Nine: Conclusions: we have tried to summarise main findings and made some policy recommendations based on findings of the study, as measures to be taken by the concerned authorise for correction of the system.

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