Chapter - II

Review of Literature

One of the essential preliminary tasks when one undertakes research study is to go through the existing literature in order to familiarize oneself with the available body of knowledge in one’s research area. Literature review is an integral part of the entire research process and makes valuable contribution to every operational step for undertaking research. It provides theoretical background to one’s study. It helps in identifying gaps in the existing body of literature on the subject and establish link between what you propose to study and what has already been studied. It helps one to develop his methodology. Finally, it helps compare one’s findings with those of others and suggest further directions for research (Ranjit Kumar, 2005).

The chapter has been organized in to five sections: in Section 1, we shall review some important studies on the Financial Sector and Analysis of Financial Performance, in Section 2, we shall discuss studies related to the Role of Financial Institutions and the Economy, in Section 3 studies related to Financial Sector and Economic Development will be reviewed. In Section 4, we are going to highlight the findings of some important studies related to Power Sector Reforms in India and its Impact on Financial Performance and in Section 5, we shall discuss some studies related to Financing of Power Sector in India.

Term ‘Finance’ covers sources of funds which may be borrowed to pay for investment or consumption. Financial Institutions offer a wide range of financial services. Financial Institutions or Intermediaries include merchant and retail banks, insurance companies, pension funds, and some other financial institutions. Along with other functions, banking institutions accept primary deposits and create credit under the overall supervision of the central bank (Reserve Bank of India) in India. Non-banking financial institutions borrow funds from various sources and lend to borrowers of various types for short and long terms.
Development Financial Institutions provide development finance on relatively soft terms and on long term basis. There are some specialized development institutions which finance infrastructure or some specific sector of the economy. Infrastructure development finance corporations are provided special concessions to encourage funding of infrastructure projects. Power Finance Corporation Ltd. is especially established by Government of India to meet the special financial needs of the power sector in India.

'Financial System' of an economy is a multi-dimensional system. It refers to the whole system of legal and institutional arrangements, banking system, financial intermediaries, markets and instruments which may have domestic as well as foreign dimensions. Finance is the life blood of modern economy. A financial system helps in mobilization of financial surplus of an economy and in transferring it to the areas where it may be required for investment. The Financial system promotes saving habits by providing a wide range of financial assets to the people in a country. Savings mobilized from the households are pooled together and provided to the entrepreneurs and needy people to increase production and consumption levels. If credit is allocated judiciously and in a socially equitable manner, it may facilitate achievement of growth with social justice. In a country where capital markets are not developed or are underdeveloped, economic entities depend on financial intermediaries for their fund requirements. Sources of credit may be institutional and non-institutional. Main institutional sources of credit are Commercial Banks, Development Finance Institutions, Non-Banking Finance Companies (NBFCs) including Housing Finance Companies. Non-institutional or unorganized sources of finance include money lenders, indigenous bankers and sellers for trade credit, etc.

II.1 Financial Sector and Analysis of Financial Performance

Financial performance of any organization reflects its ability and achievement with respect to its financial objectives during the period of time under consideration. There are various methods to carry out the financial
performance appraisal; the main methods include funds flow analysis, cash flow 
analysis & stock market performance. All of these methods, with appropriate 
changes, use the information obtained from financial statements of any 
organization. Thus financial statements are the source of every type of financial 
analysis, whether it is ratio analysis or any other. Finney and Miller have defined 
financial analysis in the following words:

“Financial Analysis consists in separating facts according to some definite 
plan, arranging them in groups according to certain circumstances and then 
presenting them in a convenient and easily read and understandable form.”

Scholars have held that the purpose of financial analysis is to deploy 
analytical tools on financial documents in order to arrive at useful estimation and 
inference which are useful in business analysis. (Wild, Subramanyam, & Halsey, 
2006) Others have held that ratios are useful in focusing on key values of the 
financial statements. (Ward, 2008) While some other scholars have focused on the 
purpose of financial statement analysis as extracting information for facilitating 
decision making (Minaxi, 2011). Few financial experts have laid emphasis on the 
concept of cost of capital in financial appraisal of the firm. (Pandey, 1981) In the 
words of I.M. Pandey, quoted from the book ‘Capital Structure and Cost of 
Capital’: “The cost of capital concept occupies a pivotal place in the theory of 
financial management as a criterion of allocating capital. This concept has 
received considerable attention both from theorists and practitioners in recent 
years. ..........The traditional belief is that cost of capital is a function of capital 
structure…….”

Further the author states. “The term cost of capital is used in different 
senses. In the past it was frequently used to refer to the costs of specific sources of 
capital, such as the cost of debt, the cost of equity etc. When used in this sense, 
the term carried the implication that, in order to accept or reject the proposed 
projects, their profitability should be evaluated on different cost bases depending 
on the specific sources of funds used to finance particular projects. It has been,
however, recognized recently that this position contained a basic fallacy. A firm’s decision to use debt capital to finance its projects not only adversely affects its potential for using debt in the future by proportionately lowering its equity base, but also creates risks to the shareholders. Such risks in turn will influence the cost of equity. Similarly, a firm’s decision to use equity capital to finance its projects would enlarge its potential for borrowings in the future. Because of this connection between the methods of financing and their costs, it has been now agreed that the term cost of capital should be used in the composite sense of the weighted average cost of capital.”

On the usefulness of financial performance analysis of an enterprise, a leading financial expert observes as follows (Chandra, 2006):

“........we looked at the contents of the financial statements and pointed towards the danger of imputing economic significance to accounting numbers. Yet financial analysts depend primarily on these statements to diagnose financial performance. Why? It appears that there are three principal reasons: (i) As long as the accounting biases remain more or less the same over time, meaningful influences can be drawn by examining trends in raw data and in financial ratios. (ii) Since similar biases characterize various firms in the same industry, inter-firm comparisons are useful. (iii) Experience seems to suggest that financial analysis ‘works’ if one is aware of accounting biases and makes adjustments for the same.”

Further the author adds: “Financial statements serve important functions: (a) They provide information on how the firm has performed in the past and what is its current financial position. (b) They are a convenient device for the stakeholders (shareholders, creditors, regulators, and others) to set performance norms and impose restrictions on the management of the firm, (c) They provide convenient templates for financial forecasting and planning.”

Another author on finance highlights the importance of ratio analysis in the following words (Kishore, 2009): “The term ‘accounting ratio’ is used to describe
significant relationships which exist between figures shown in a balance sheet, in a profit and loss account, in a budgetary control system or in any other part of the accounting organization. The accounting ratios indicate a quantitative relationship which is used for analysis and decision making. It provides basis for interfirm, as well as, intra-firm comparison. The ratios will be effective only when they are compared with ratios of base period or with standards or with the industry ratios. Ratio analysis is a very powerful analytical tool useful for measuring performance of an organization. The ratio analysis concentrates on the inter-relationship among the figures appearing in the financial statements. The ratio analysis helps the management to analyze the past performance of the firm and to make further projections. Ratio analysis allows interested parties like Shareholders, Investors, Creditors, Government and analysts to make an evaluation of certain aspects of a firm’s performance. Ratio analysis is a process of comparison of one figure against another, which make a ratio. The appraisal of the ratios will make proper analysis about the strengths and weaknesses of the firm’s operations.” (Ravi M Kishore, 2012).

II.2 Role of Financial Institutions

Manuela W. Armenta (2007) in their study “The Financial Sector And Economic Development: Banking on the Role of Human Capital” have highlighted that Human Resource play significant role in stabilizing the operations of banks. Thus it is extremely important to maintain appropriate number of competent bankers. But Manuela put forward the unfortunate situation of developing countries since pre and post liberalization periods in attaining adequate supply of professionals with desired level of skills and capabilities. Further, it also negatively affects the positive relation between financial liberalization and economic growth in future. It clearly pinpoints two issues i.e lack of sufficient number of capable staff and secondly, absence of desired set of skills in candidates. The paper tries to establish the relation between economic theory and financial sector and how the development of financial sector is linked
with economic growth. It analyses the depth of financial sector, liberalization process and growth process of financial sector. It challenges the argument of liberalization being the sole contributor to the process of economic growth. It critically investigates the linkages between formation of Human Capital and development of financial sector. The paper draws attention to the immediate need of formulation of the human development policies, that directly takes care of demand and supply requirements of the financial sector, at the level of developing states. The policies must ensure the up-gradation of professionals with required academic background in the streams of business and finance and must also aim at developing the existing human capital with the job oriented skills through various on the job training programs so that they are able to perform their roles with efficiency and effectiveness. Manuela W. Armenta concludes the paper by proposing the policy solutions through partnership of public and private sectors so that it becomes possible to develop efficient and effective manpower rather then compromising on the front of finding candidates with inappropriate skill-mix at the time of recruitment and existing bankers with insufficient skills (www.princeton.edu/jpia/past-issues-1/2007/9.pdf)

Isabella Massa and Dirk Willem te Varde (2011) in their paper “The role of development finance institutions in tackling global challenges” have observed that even though the world is becoming richer and more globalised, developing countries in particular are increasingly facing global challenges that are setting a new context for development and growth. The risks that are likely to have the greatest impact in the coming decade are climate change, fiscal crises, economic disparity, global governance failures, storms and cyclones, geopolitical conflict, corruption, flooding and water security. Recent discussions have also focused on commodity price volatility.

Key points that emerge out of the study are: Development finance institutions (DFIs) can help tackle the effects of a growing number of global challenges on poor countries, for example, climate change, financial crises and
global security. Using a macro-framework they show that DFIs have promoted investment, growth (including post-conflict) and energy efficiency in developing countries. DFIs and their share-holders need to step up their efforts in coordination with others to invest more in the poorest countries, particularly during financial crises, directly after conflict and towards environmental goals.

Vighneswara Swamy (2014) critically evaluates the need, importance and benefits of Institutional finance reforms in India, in his paper titled "Reforms in Institutional Finance for Inclusive Growth". It examines different aspects of institutional reforms with reference to the growth of Indian Economy. The paper seeks to recommend some feasible propositions from practical angle. Rural Financial Architecture (RFA) of India is also suffering from fundamental policy issues and universal institutional shortcomings. The paper states that the sustainability of Rural Financial Architecture (RFA) was adversely affected by dearth of freedom, absence of productive governance and lack of accountability. All these factors have prevented RFA to come up with some constructive output and resulted in difficult outpace.

Vighneswara argues that nearly 3 billion people were excluded financially from the explicit financial services all over the world. Thus it highlights the immense need to ensure the access of institutional finance for the poor. Presently only 34% of population is involved in formal banking. Thus this paper concludes that if institutional finance reforms come together with governance reforms in RFA in India, it would be exceptionally favourable for the economy in securing the availability and accessibility of the indispensable and extremely essential financial services to the poor. It also helps the weaker and ignored sections of the Indian society and thus promotes the efforts towards attainment of inclusive growth (mpra.ub.uni-muenchen.de-58337/).

Harsimran Kaur and Bhawdeep Singh Tanghi (2003) in their paper “Non Banking Finance Companies: Role & Future Prospects” have argued that Non-banking financial companies (NBFCs) are financial institutions that provide
banking services, but do not hold a banking license. The main focus of the study is on the role of NBFCs in India, its significance, its funding sources and future prospects. The paper concludes that NBFCs have been playing a crucial role in terms of the macroeconomic perspective as well as strengthening the structure of the Indian financial system. Consolidation in the sector and better regulatory framework for NBFCs have helped them become more focused. However, in the real world of competition, NBFCs have to focus more on their core strengths and must constantly endeavor to search for new products and services in order to survive and grow constantly.

Traditionally infrastructure is a capital good used to produce publically available services, including transport (roads railways and air) and telecommunication, gas, electricity, and water supply. These provide an essential background for other economic activities in modern economies (John Black, 2002). Infrastructure development is a precondition for economic development and it improves quality of life. Infrastructure requires huge long term investment for which public as well as private institutions have to play an important role. Now a days, infrastructure is being developed in Public-Private Partnership mode. Geethanjali Nataraj(2014) in her study “Infrastructure Challenges in India: The Role of Public-Private Partnerships” has highlighted the role of financial institutions in developing infrastructure in public and private partnership as the most effective model of infrastructure development.

II.3 Financial Sector and Economic Development

Thorsten Beck (2011) in a path breaking paper "The Role of Finance in Economic Development: Benefits, Risks and Politics" has examined the theoretical and empirical basis of the relationship between finance and economic development in a historical perspective. Thorsten Beck has argued that robust, systematized and productive financial system is the pre-requisite for the sound development of an economy and economic prosperity. Yet financial system swings with rise and fall cycles and delicacy of economy which results in
pessimistic impact and fallout for the actual economy. The political structure of societies based upon the historical events is hazardous for the anatomy and development of the financial system. It is also an exploratory study to determine the usefulness of finance in the progress of market-based economies. The paper evaluates the arguments of many experts like Adam Smith (1776), Alexander Hamilton (1781), Joseph Schumpeter (1921) to establish the importance of finance for economic development. It further examines the arguments of thinkers like Lucas (1988), Robinson (1952), Goldsmith (1969), McKinnon (1973), and Shaw (1973), who tried to correlate the process of economic development with the process of economic growth. On the basis of these contemporary studies, the paper has brought to lime light the fact that there is a strong bond between financial sector and the results of other sectors which comprise countries' trade balance pattern, shift in income distribution and levels of poverty. It scrutinizes the role played by financial sector in the growth of an economy and also tries to explore the reasons and implications of financial fragility and the politics behind it. Literature available on institutions and development as financial institutions and markets are dependent upon contractual institutions. Acemoglu, Johnson, and Robinson (2005) have also been looked in to. Finally, the paper is a comparative study of relation among three dimensions namely financial fragility, politics and finance; finance and growth as a whole and the twenty-first century first global financial crisis. These three dimensions share relevant mutual connection. The flimsiness of banking sector and progress of financial sector deepening are two halves of the maturity transformation. Factually, long term financial deepening contributes to the rapid growth of an economy whereas credit rise in short term are attributed towards higher possibility of systemic banking crisis. The two crucial causes that have politically constrained the development of necessary property rights and contractual institution are growth and fragility linked to historic events and they also cultivate connected and politicised lending.

Panicos Demetriades and Siong Hook Law (2004) in their paper “Finance, Institutions and Economic Growth” using data from 72 countries for the period
1978 to 2000 have argued the that financial development has larger effects on growth when the financial system was embedded within a sound institutional framework. This is particularly true for poor countries, where more finance without sound institutions was likely to fail in delivering more growth. They found that in these countries, improvements in institutions were likely to deliver much larger direct effects on growth than financial development itself. They are also likely to have positive indirect effects through the financial system, particularly when the latter is already providing large amounts of credit to the private sector. It has also been noted that financial development is the most potent factor in delivering extra growth in middle-income countries. Its effects are particularly large when institutional quality is high. Institutional improvements can also deliver more growth in various countries, especially when the financial system is well developed. It has further been found that while the effects of financial development in high-income countries are much smaller than in middle-income countries, even in these countries financial development has larger effects on growth when institutional quality is high.

II.4 Power Sector Reforms in India and its Impact on Financial Performance

Rabindra Nepal and Tooraj Jamasb (2011) critically examine the role of institutions in reforming power sector in their paper entitled "Reforming the Power Sector in Transition: Do Institutions Matter?" The paper examines the cases of 27 different countries which are facing accelerated political and economic transition since 1990 and tries to establish quantitatively strong bonds among reforms in power sector and expanded institutional reforms in the economy. It has attempted to estimate the impact of reforms on macro-economy and the power sector. The analysis concludes that reform in power sector is much more critical process than it was perceived in the beginning. The paper also argues that there is very powerful mutual reliance between reforms in power sector and reforms in other sectors of the economy. Finally it is concluded that victory of
reform process in power sector in measurable terms in developing countries will greatly depend upon the degree to which these countries are able to integrate and harmonize inter-sector reforms in the economy.

Power sector reforms were initiated in 1991 in India. The erstwhile State Electricity Boards were reorganized into separate Generation, Transmission, and Distribution Corporations at the state levels. Electricity Regulatory Commissions were established at the Centre and State levels,

K.P. Kannan and Vijaymohan Pillai (2001): “Plight of Power Sector in India-II: Financial Performance of SEBs” have provided a comprehensive analysis of financial performance of power sector in pre and post reforms periods. They conclude that “The patronising policies of the state resulted in excessive employment, especially at the non-technical, administrative level, involving unwarranted cost increases and in irrational pricing practices for subsidised power sales, irrespective of considerations of costs, leading to substantial losses. In addition to Plan outlays allocated to the power sector, government subventions were also on the way in, such that the SEBs never felt the pressing requirement to break even or to contribute to capacity expansion programmes. The unaccountability culture, thus engendered and encouraged, permeated the whole institutional texture, and the consequent gross inefficiency contagioned the system. The rot set in. Losses mounted up, and prospects counted down. And then one fine day, the government awakened to the bitter truth that its coffer could no longer contain such losses, and exhorted and enjoined the SEBs to mend their ways and mind their means. Then followed the pandemonium, the chaos that is to precede any restructuring. By that time, however, the lot had been casted.”

They further observe, “The whole system could be spared from such avoidable chaos, if the function as autonomous commercial-cum-service corporations, as required by the Electricity (Supply) Act 1948. We have seen that if some minimum, affordable standards of efficiency were maintained at the technical and institutional/organisational levels in the functioning of the SEBs,
considerable cost savings could be achieved and this, coupled with a rational pricing practice, could win the system a very comfortable position. It could work even otherwise; if the government fully compensated the SEBs for its induced inefficiencies regularly and in time, the industry could still sustain its survivability. The compensation system has failed on both the fronts - the timely submission of the accounts by the SEBs and that imply payment by the government.

Here is an instance: "The rural electrification subsidy receivable from the Government of Kerala for the loss incurred by the Kerala State Electricity Board (KSEB) due to Rural Electrification operations during 1985-86 to 1993-94 was estimated and submitted to the government for sanctioning the release of subsidy" (KSEB, Annual Statement of Accounts 1996-97 and 1997-98). The subsidy amount was not paid by the Kerala state government.

"The utter negligence and neglect of the means to ensure minimum T and D loss has been another contaminated fall out of the government-sponsored inefficiency. Unmetered withdrawal of electricity is rampant in several urban areas, in connivance with the board staff, or by errant consumers enjoying protective patronage."

Study further observes that, "the most relieving aspect of this system predicament is that the problems are just internal to the system, as we have shown above. This then implies that there do remain sufficient quarters for remedial exercises, meant to remove the problems that stand in the way of the SEBs' improved performance. In other words, what the system badly requires is essence-specific reforms, not structure-specific ones. The precarious financial position of the SEBs has come in handy for the institutional lenders including the World Bank to press for structure specific reforms. The attraction of soft loans offered as a pack-age with reforms and of the selling out of public sector assets have cornered and captured the political theory of corruption that governs the prodigal governments."
Surinder Kumar (2004) in his book ‘Electricity Theft: Empowering People and Reforming Power Sector’ has examined the problem of power theft specifically in the Punjab. Problem of electricity theft is menace in India. It is one of the most important evils along with T&D losses and subsidized supply of electricity with full subvention on the part of state governments, which is eating in to the vitalities of the distribution business making it financially non-viable. The study of power theft in Punjab is based on analysis of data collected through a structured schedule regarding perceptions of 259 consumers of various categories, and employees & officials of power Distribution Company. Findings are very revealing: perception of most of the consumers and employees is that consumers of almost all the social and educational background from various categories of consumers indulge in power theft. People indulge in pilferage to evade paying for their electricity consumption to avoid payment despite having capacity to pay for their consumption. Consumers indulge in pilferage of power with active or passive connivance of the employees. Most of them believe that they can get away with small or no punishment/fine. Tempering with the meters for recording consumption, use of Kundis and use of defective meters were identified as main methods to pilfer power. At places organized resistance from influential people in the village, denying entry to meter readers in the premises of their houses where meters were installed was also observed. A number of policy changes have been recommended. One of the important recommendation was that people due to lack of consciousness, had little trust in community based solutions. In the villages, pilferage has become a socially accepted act for which massive awareness campaigns need to be launched. The genuine consumers have to be made conscious of the fact that they are ultimately forced to pay for the theft of others.

In this study we are concerned with financing of power sector in public as well as in private sector. If financial health of the sector was poor, risk of default in payment to the funding institution will remain high in short as well as long run despite government guarantees and counter guarantees. The episode of Enron in
India needs to be kept in mind (Surinder Kumar, 2002), despite government guarantees deadlock over payment took place, endangering the viability of some of the commercial banks. Therefore, review of financial performance of power sector, generation, transmission, as well as distribution business will be quite educative.

Rajesh Kumar et al. (2005) “Regulation of Power by Independent Regulator: Haryana Experience” have examined the institutional changes brought about in Haryana State Electricity Board. The study analyses the institutional design of the Independent Regulatory Authority, Haryana Electricity Regulatory Commission (HERC) and the role of policy directions issued by the state government from time to time. It has been argued in the study that HERC did try to bring about transparency in accounting and decision making of the generation, transmission and distribution utilities but failed to get its policy directions executed by the utilities. Participation of the various stakeholders in public hearings has been encouraged but utilities have failed to reduce T&D losses and pilferage of power which remain at unacceptably high levels. Metering could not be completed especially of agricultural consumers and it is a guess work. Tariff continues to be ad-hoc and having little relationship with the cost of supply. Government forced the distribution utilities to subsidize agriculture and some domestic consumers but failed to provide adequate subvention and the distribution utilities remain in a financially crisis ridden state. The existing regulatory design has proved inadequate to resolve financial crisis of the distribution utilities in the current socio-economic institutional framework.

Surinder Kumar & Kulwant Singh (2014): “Power Sector Reforms and State Level Utilities: A Study of Haryana and Punjab” have argued that restructuring of power sector was carried out to provide justification to privatization of utilities. Restructuring has little visible impact on technical and
financial performance of the concerned utilities. After carrying out a detailed analysis of government subsidization policy for supplying power to agriculture free of cost or at nominal rates, it has concluded that subvention provided by the government was not adequate and did not help distribution companies to overcome their liquidity crunch. Such a state of affairs where political will was inadequate to enforce reforms, reforms appear to be failing in achieving their cherished goals of transparency, accountability and better performance of the utilities. In fact it is affecting the financial position of even the state governments.

II.5 Financing of Power Sector in India

An expert Group was constituted by the Planning Commission under the chairmanship of M. S. Ahluwalia (2001) to suggest measures for the financing of power sector during the 10th and 11th Five year plan. The Group reviewed the issues and challenges in the financing of power sector in detail. The committee adopted a detailed and concrete methodology to make a realistic estimate of the fund requirements for the power sector and the way it can be financed. At the outset the committee estimated the new capacity addition requirement in the generation, transmission and distribution segment. It also focused on the renovation and modernisation of the existing capacity. The committee estimated that the total fund requirement for the power sector was Rs. 3,99,800 Crore and Rs. 500,000 Crore during the 10th and 11th plan respectively. The total investment proposed was highest for the generation sector. For both of the plans, about 60 per cent of the total fund requirement was allocated for the generation sector. Moreover, the private sector was also provided greater role to play in order to bridge the investment gap in the power sector. Among others, the Committee suggested that a fund called, India Power Fund should be established so that the power sector may not be facing the shortage of funds. The committee further suggested for the privatization and disinvestment of the public sector companies
so that the increasing demand for funds can be fulfilled. The committee also suggested some incentives such as tax reliefs and exemption from the stump duty so that the cost of financing the power sector project is reduced. The challenge to finance power sector continued in 12 five year plan as well.

Government of India constituted a committee in July 2010 under the chairmanship of Sh. V.K. Shanglu, a former Comptroller and Auditor General of India to review the financial position and make corrective recommendation regarding financial restructuring of power distribution companies. Shanglu Committee (Planning Commission: Report of the High Level Penal on Financial Position of Distribution Utilities, 2011) has made a comprehensive review of the problems of the power distribution companies in India. It has made very profound recommendation to put them on rails and make them viable. The committee has argued that despite restructuring of power sector under power sector reforms since 1991, the ground reality has not changed much. Management must be given required autonomy, qualified professionals be appointed and made fully accountable. Decision making should be transparent and efficient. The Shanglu Panel has laid down complete road map for ensuring financial viability of the distribution companies. The government must favourably consider implementation of the recommendations if it is serious about the financial health of the power sector.

A two day conference was organized by Institute of Public Enterprises, Hyderabad on November 3 & 4, 2011. The papers have been published in an edited book ‘Power Sector Reforms: Achievements, Opportunities and Challenges Ahead’ by Professor Ram Kumar Mishra et al., Macmillan India, New Delhi, 2012. In this book, S. Mallikharjuna Rao and K.S. Sekhara Rao (2011) in their study “A Study of Factors Influencing Debt Financing in Power Projects- Project Facilitator’s Experience in India” have observed that power sector development
in India requires huge amounts of financial resources. Investment requirements are huge, long term and are risky for which funds are not easily available especially from lenders who are driven by returns on their investment only. Still major source of financing has been borrowings from the debt markets. Some of the important factors which influence debt financing of power projects are: project risks, interest rates, terms of financing, demand at the point of time, fear of asset & liability mismatch.

The study is based on information collected from 169 top management executives who manage power projects selected at random from different states in India. A structured questionnaire was administered and respondents were selected from 36 public sector power companies and 133 private sector companies. 65% respondents identified project risk, 15% respondents identified terms of financing, 13% respondents identified demand for finances at time of financing, 5% identified interest rate and 2% identified fear of assets and liabilities mismatch as the main factor in decision making for debt financing of the power projects. It was further brought out by the study that there was a close relationship among various variables, interest rates were linked with terms of financing and demand at that time. The terms of financing were closely related to assets & liability mismatch of the financial institutions. Mismatch between assets and liabilities of financial institutions emerge when power companies (borrowers) fail to repay loans on time. It has been concluded that major financing of power projects should be done by the government. The Government should implement policies which will improve investment climate and reduce investment risks which affect power projects.

Vinti Aggerwal and Samiksha Ojha presented a paper “ Financing to the Sustainable Development of the Power Sector: A Case Study of Power Finance Corporation Ltd”. The paper has also been published in Journal of Institute of
Public Enterprises (Jr. of IPE), Vol. 34, Nos. 3 & 4, July –Dec. 2011. In this paper, background of the evolution of power sector in India, reforms in the power sector since 1991, current scenario of generation, transmission and distribution sectors and emerging future scenario have been analyzed. In this backdrop, establishment of Power Finance Corporation Ltd. by government of India in 1986, its vision, mission and objectives, operational philosophy, its products and services, its achievements & progress and challenges ahead have been discussed. Some observations regarding returns from lending, cost of funds, and sources of funds have been provided. Though the paper is insightful & educative, it is descriptive in nature based on qualitative analysis.

This paper investigates in detail the contribution made by PFC in financing the sustainable development of power sector in India. Development process, issues and challenges of power sector right since independence have been highlighted. This paper states that Indian power sector requires a large sum of resources in order to meet the increasing need of capacity enhancement in generation, transmission and distribution. The Five-Year Plans substantially contributed towards the development of generating capacity of power sector but it was found to be inadequate to meet demand for electricity. Authors have highlighted various weaknesses like high levels of transmission and distribution losses power theft, etc. due to which state electricity boards failed to meet their commitments. To overcome these problems, Government of India asked Central Electricity Authority to formulate integrated National Power Policy and further National Thermal Power Corporation (NTPC) and National Hydro Power Corporation (NHPC) were established to add to generating capacity. Many more programmes were launched like Aggregate Generation and Supply Programme (AG&SP), Accelerated Power Development and Reform Programmes (APDRP) to accelerate the pace of improvement in existing generation projects and to liven up the distribution system. In spite of all the above mentioned efforts, Indian
power sector was far behind from what was required. Power Finance Corporation (PFC) was established with futuristic approach as a Non Banking Financial Company (NBFC) for empowering the power sector by not only speeding up the pace of current generation projects but also exploring and introducing innovative projects in future. PFC was visualized as the most favoured financial institution which would provide economical and competitive products and services with efficient and internationally integrated sourcing and servicing. It also intended to contribute to the reforms in the Indian Power Sector and boosting its value to stakeholders; by promoting productive investments in the power and allied sectors in India and overseas. PFC is a dynamic, elastic, future oriented, reliable and socially responsible organisation. It is sensitive to the interest of the stakeholders. It is objective and clear in its operations. In addition to all these, it is profitable and viable since its inception. The vision of PFC is to be the most representative institutional partner for the power and the allied infrastructure sectors in India and abroad across the value chain.

The paper further explores the operational philosophy of Power Finance Corporation by throwing light on its Operational Policy Statement (OPS). Authors make a comprehensive investigation in to products and services provided by PFC. The Corporation offers a wide range of products and services which are categorized under two heads namely fund based and fee based. Major services which come under fund based product are rupee-term loan, foreign currency term loan, buyer's line of credit, direct discounting of bills schemes for buyer, direct discounting of bills for sellers, lease finance scheme, debt refinancing, bridge loan, scheme for asset acquisition, energy saving project policies and short term loans. Non-fund services comprises of guarantees and consultancy services.

The above detailed review of literature brings out that role of finance and financial institution is of pivotal importance in accelerating economic
development of a country. Role of finance in development is of critical importance in the development of infrastructure in an economy. Development of infrastructure requires special non-banking financial institutions which extend long term credit at relatively soft terms and conditions. Therefore, financial institutions like Power finance Corporation in India are of great importance for the development of power sector in India. Such institutions must be governed by sound principles of financing development otherwise they may fall sick and will leave a devastating impact on the economy in general and financial sector in particular.