Chapter – 2

RESEARCH DESIGN AND METHODOLOGY
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In this chapter the investigator made an efforts to present the research design and methodology. This includes review of literature, research gap, need, nature and scope of the study, objectives and methodology of the study.

NEED FOR THE STUDY

Globalization of business, sophistication in technology, complexity of work and accelerating changes has made learning very important for organizations. Significant changes have occurred in organizations as a result of downsizing, technology transformations and customer demands for new and better products and services. Providing training and learning opportunities for employees are especially important in the services economy. Competition has made firms more conscious of productivity levels. The result is that firms often expect more work to be accomplished by fewer people. Changes in technology, products and methods have had a major impact on job requirements. These organizations must have an ongoing process of learning if they want to maintain or improve competitive advantage. Therefore, it is imperative to examine the financial performance of these industries from time to time.

STATEMENT OF THE PROBLEM

Today, most of the companies are operating in the high end software service business and are also making efforts to enter into the products segments. A new breed of companies, led by second generation software entrepreneurs, is setting up product oriented companies. The industry has weathered ups and downs in the global market, maintaining a high rate of growth. The industry moved center
state in the domestic media because of its visibility in US, high market capitalization and wealth creation for its employees. It is a source of national pride and getting recognition for their leadership in adopting best practices in management. Indian companies further moved up the value chain, improving their productivity, targeting new geographic, vertical domains and business.

IT/ITES exports have grown to a staggering US$ 46.3 billion in 2008-09 and the IT sector currently employed 2.2 million professionals directly and another 8 million people indirectly accounts for over 5 percent of GDP. A majority of the Fortune 500 and Global 2000 corporations are sourcing IT/ITES from India and it is the premier destination for the global sourcing of IT/ITES accounting for 55 percent of the global market in offshore IT services and garnering 35 percent of the ITES/BPO market. Indian IT firms will have to strive for that extra mile and put in smart work to survive in the newer growth opportunities. By the year 2010-11, Indian Software and Services export is expected to reach US $ 60 billion and by 2011-12 which is also the terminal year of the eleventh five year plan, the figures are expected to touch US$ 72 billion, this is assuming a 20 percent growth rate for 2012-13. Keeping in view, the present study has been conducted to build a knowledge base on the financial performance of IT industries in India.

**SCOPE OF THE STUDY**

The study has been undertaken by the researcher to analyze the financial performance of selected IT companies. Finance plays a key role to all the activities. Financial duration must be viewed in the light of the financial viability of each activity. The study concentrates on TCS, Infosys, Wipro and HCL Tech.
The study examines the liquidity and profitability of selected IT companies. The study also gives suggestions to improve the financial performance of selected IT companies. It covers the period of 10 years i.e. from 2004-2005 to 2013-2014. The key financial position of the selected IT companies are critically analyzed for the study period.

OBJECTIVES OF THE STUDY
1. To review the performance of IT Industry and its impact on Indian economy.
2. To examine the composition of the profile of IT industry and select IT companies.
3. To analyse the financial performance of sample IT companies in terms of liquidity, profitability and solvency.
4. To assess the overall financial performance of sample IT companies.
5. To focus the challenges and problems of IT industry in view of changing globalization.
6. To offer findings, suggestions and conclusions of the study.

HYPOTHESES OF THE STUDY
➢ **H₀** There is no significant difference among the selected financial indicators of the sample IT Companies. (Dividend per share, operating profit per share, net operating profit per share, the free reserves per share, Bonus in equity capital, the percentage of operating profit margin,

➢ **H₁** There is no significant difference among the current ratio, Quick ratio, Financial Charges Coverage Ratio, Asset Turnover Ratio Dividend Payout Ratio, Earning Retention Ratio, Cash Earning Retention Ratio of the sample IT Companies.
METHODOLOGY

The current study is descriptive as well as prescriptive in nature. Descriptive study is a fact-finding investigation with adequate interpretation.

Research with a prescriptive purpose is designed to bridge the gap by developing and testing methods for aiding people in conforming to desired normative principles. This can also be called decision engineering, since it requires a series of model building and testing phases.

The present study is the simplest type of research. It is more specific than an exploratory study, as it focuses on particular aspect or dimensions of the problem studied. It is designed to gather descriptive information and provides a foundation for formulating more effective applications. Secondary sources of data have been used to elicit necessary data and details for carrying out the objectives of the present study. These data were collected from the annual reports of IT companies for various years and the special website moneycontrol.com.

SELECTION OF SAMPLE UNITS

The software industries differ in their size, nature and performance aspects. So, by considering their top position in the Industry, four IT companies have been purposively selected. Since, the past few years NASSCOM has been ranking the Top 20 IT-Service Export Companies, top 15 BPO Export Companies and Top 20 IT-BPO Employers based on a survey conducted annually, which is open to all NASSCOM members. Through this survey, NASSCOM collects financial and other information from its member companies and the participating companies are ranked based on the data submitted by them (Annexure-1). Out of top 20 companies listed by NASSCOM during the year
2010-11, four companies viz., Tata Consultancy Services Limited (TCS), Infosys Limited, Wipro Limited and HCL Technologies Limited have been chosen for the in-depth analysis.

PERIOD OF THE STUDY
The present study focuses on a decade financial performance of top four IT companies from the year 2004-05 to 2013-14.

STATISTICAL TOOLS USED FOR THE STUDY
The statistical tools such as Mean, Standard Deviation (SD), Average Growth Rate (AGR), Compound Average Growth Rate (CAGR), Linear Average Growth Rate (LAGR), Chi-square test, Analysis of Variance (ANOVA), Linear Regression and Simple Correlation have been used for analyzing the data.

SIGNIFICANCE OF THE STUDY
The study is significant for the following groups:

a) The study is useful to four select IT companies to evaluate the financial performance and its impact on progress of the companies.

b) The present study is also useful to other IT companies to make further insights into various aspects of outsourcing.

c) Studies of this type are more useful to other scholars and academicians to make further insights into the various aspects of study.

LIMITATIONS OF THE STUDY
The following are the limitations of the present study.

1. This study is limited to top four companies in India only. Therefore, the results of this study may not be applicable for other IT companies in India.

2. The data of the study have been taken from the published annual reports and websites only. Therefore, the study is not far away from the limitations of using secondary sources of data.

3. Because of the above limitation, sufficient care has been taken in constructing the tools, gathering reliable data and applying appropriate procedures of analysis.
CHAPTER SCHEME

➢ First chapter deals with the introduction and relevance of Financial Performance for select IT companies.

➢ Second chapter reveals the Design and Execution of the study. It covers Need for the study, Statement of the problem, Objectives, Methodology, Sampling Technique, Period of the study, Statistical tools used and Limitations of the study and Review of Literature.

➢ Third Chapter describes the profile of the sample IT Companies. It explains Share capital, Reserves & surplus, Net worth, Total Liabilities, Assets, Depreciation, Net block, Capital Work-in-Progress, Investments, Sundry debtors, Cash and bank balances, Loans and advances, total current assets and total assets position of sample IT Companies.

➢ Fourth chapter analyses the financial performance of sample IT Companies.

➢ Fifth chapter reveals Problems and Challenges of IT Industry.

➢ Sixth Chapter presents the Summary of Findings, Suggestions and Conclusion.
REVIEW OF LITERATURE

Literature review is a body of text that aims to highlight the critical points of current knowledge and methodological approaches on a particular topic. It aims to bring the researcher up-to-date with current literature on a topic and forms the basis for future research that may be needed in the area. A well-structured literature review is characterized by a logical flow of ideas, current and relevant references with consistent, appropriate referencing style, proper use of terminology and comprehensive view of the previous research on the topic. This chapter provides a sketch of related studies arranged logically at international and national levels. The present review of literature has been confined to growth, development and the financial performance of industries in general and IT companies in particular.

Pareek\(^1\) (1978) in his study on "Financing of Small Scale Industries in a Developing Economy" analyzed the role of financial institutions in meeting the vital needs of finance of the small-scale industrial sector in Rajasthan State in 1973. The study revealed that 1/3 of the total bank credit to small-scale industrial units in the State had gone to Jaipur District alone. It was also found that the major share of total bank credit to small-scale Industrial units in the country (52%) had gone to four states (Maharashtra, Tamilnadu, Gujarat & West Bengal).

Agarwal, H.N.\(^2\) (1979) 12, in his dissertation entitled "A Portrait of Nationalized Banks - A study with reference to Their Social Obligations" suggested changes required in the field of bank management and organization to discharge social obligations satisfactorily. He assessed the quantitative and qualitative performance of banks in discharging various

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\(^2\)Agarwal H.N., "A Portrait of Nationalized Banks (A Study with Reference to their Social Obligations)", Inter-India Publications, Delhi, 1979.
social obligations taking 1969-1973 as the period of study. He identified two social obligations and concluded that 14 nationalized banks could discharge successfully ten social obligations, which include: Providing more number of branches to public. Providing greater credit facilities to the public and the priority and neglected sectors. Financing of primary agricultural credit societies, farmer service societies etc. The eleven social obligations that were neglected include: Providing lead in the opening of branches at the unbanked semi-urban centers, direct finance to agriculturists, reducing loans to management etc. He concluded that the 14 nationalized banks succeeded in discharging satisfactorily about 56.25 per cent of the various social obligations quantified in their analysis.

Agrawal B.P.³(1981) in his Ph.D. Thesis entitled "Commercial Banking in India after Nationalization: A study of their policies and progress," has studied the performance of Banking, their policies and progress after nationalization. The main findings were:

a) seeing the performance of the banks under the earlier scheme of social control, it can be observed that even the private banks should have worked to fulfill the' policies laid down by the Government so that there was no need of extreme measure of nationalization;
b) however, after nationalization, the people with smaller means too can approach bank for credit and bank attempts to reform their credit practices are also significant;
c) keeping in view the importance of banks and the nature of banking service, nationalization of banks in India cannot be said' to be improper.
d) In the period of rising prices, liberal credit expansion is not possible. This situation is always on obvious limitation of extending credit to, hitherto, neglected sectors on a very large scale. So success of banks in nationalization in India cannot be judged easily on the basis of credit facility granted to priority sectors.

Birla Institute of Scientific Research\footnote{Birla Institute of Scientific Research (Economic Research Division), Banks since nationalization, Allied Publications, New Delhi, 1981.} (1981) attempted to compare the “Public as well as private sector banking growth since nationalization. Banks” branch expansion programme, deposit mobilization, credit disbursement, production function, economic feasibility of banking sector etc., have been covered and results analyzed. The data clearly indicate the rapid expansion of banking facilities since nationalization in all the major fields of banking activities.

Harinarayana Agarwal\footnote{Harinarayana Agarwal, "Social Obligations of Public Sector Commercial Banks," IPE Journal, Vol. No.1, Jan-March, 1981.} (1981) in his article on "Social Obligations of Public Sector Commercial Banks" highlighted the role of Commercial Banks in the economy and their services to the customers who are either their depositors or borrowers and are individuals as well as corporate bodies.

Sukhamoy Chakravarthy\footnote{Sukhamoy Chakravarthy - Report on Review of working of the monetary system, Govt. of India, 1982.} (1982) had indicated the basic tenets of operational efficiency of banks as important management objectives as it vitally affects the efficiency of the monetary system.

Wadhwa, R.L.\footnote{Wardhwa, R.L., "Banking Services to Priority Sectors - Scope, Implications, Assessment", Financing Agriculture, October-December, 1982, pp.18-222.} (1982) in his paper on "Banking Services to Priority Sectors - Scope, Implications, and Assessment - Financing Agriculture" examined the future trends and problems in lending to priority sectors and made suggestions to reduce the unhealthy trend of raising over-dues.

Brahmanandam, G.N.\footnote{Brahmanandam, G.N. "A Study of Financing Small Industry by Commercial Banks in Guntur District", Thesis submitted to Nagarjuna University, 1983.} (1983) in his Ph.D. Thesis "A Study of Financing Small Industry by Commercial Banks in Guntur District" identified several problems faced by both small entrepreneurs and
commercial banks in dealing with each other and suggested suitable measures to resolve those problems.

**Kiran Chopra** (1987) in her empirical work, "Managing Profits, Profitability and Productivity in Public Sector Banking", has studied the emerging trends in the profits and profitability of some selected public sector banks in India. The study highlighted the need for the introduction of management essentials for better management of profits and profitability of public sector banks.

The study concludes that the profitability of the sample banks is on the decline. For ensuring the better profitability management system in the banking industry, the study recommends proper management of both costs and earnings.

In case of management of costs: a) Banks should conduct profit analysis on the basis of products and accounts. This would help the banks in recasting their cost estimates for different types of activities / group of customers. b) Strictest control should be exercised on the variable costs / expenses.

**Ramesh Gelli** (1988) in his paper on "New Approaches to Branch Management" emphasized that only through proper guidance, training and motivation, the branch Manager can perform better.

**Srinivasan** (1991) in his paper on "Performance Budgeting" had stated that it has been limited to fixing of targets for deposits and advances to be achieved by the branches for a period and not beyond that.

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Abdul Noor Basha\(^\text{12}\) (1992) made a study on, "Economic Aspect of Credit Scheme: A Study on ADB of state bank of India in Guntur district". In his empirical study on ADB of the State Bank of India in Guntur District, had attempted to estimate the credit requirements of the farmers against the scales of finance offered to them. He found that the scale of finance was grossly inadequate compared to the needs, and the cost of credit also showed an undue of escalation due to corruption and delay in sanctioning loans. He suggested an organized consortium approach among the bankers and the Government agencies for arriving at realistic scales of finance.

Bilgrami, S.A.R.\(^\text{13}\) (1992) in his study, "Growth of Public Sector Banks" examined the important aspects of the growth in public sector banking and made inter regional and inter-state comparison. The study revealed that the progress of the public sector banking during 1969-70 was as laid down in the policy. According to him, the disparities in the region and state are in terms of the availability of banking services i.e., branch expansion, and deposit mobilization and credit deployment. He opined that there is a healthy trend of reduction in the disparities during the period.

Ratna Treaty\(^\text{14}\) (1992) in her study on "Human Resource Development in the State Bank of Hyderabad" examined the working of human resource development programmes in State Bank of Hyderabad to develop the capabilities as individuals and discovered and exploited their inner potential for their own or organizational development purposes.

Chawla\(^\text{15}\) (1993) in his paper on "Training and Skill Development", had stated that, in the new competitive environment in the financial sector,

\(^{12}\text{Abdul Noor Basha, "Economic Aspect of Credit Scheme: A Study on ADB of State Bank of India in Guntur District", Printwell Publishers, Jaipur, 1992.}\)


\(^{14}\text{Ratna Tripathy, "Human Resource Development in the State Bank of Hyderabad", M.Phil. Dissertation, Utkal University, Bhubaneswar, 1992.}\)

quality of customer service and efficiency and productivity are important and this would require bank management's to have a re-look at the quality of human resources and increasingly be more and more challenging for employee training.

**Ramachandra Rao**\(^{16}\) (1993) discussed the prudential norms for income recognition, asset classification, provisioning, and accounting standards for investment, which made banks helpless and left them with no option but to reveal the actual financial position to be transparent to the public in his write-up on "The Bleeding Bank Balance sheet".

**Shetty, J.V**\(^{17}\) (1994) in his article on "Nationalization - The Rewarding Twenty five Years" has analyzed the banking sector in India after nationalization. He says that the nationalization of banks has served the purpose of building up on infrastructure, extensive coverage of the country with banking facilities, mobilization of resources and deployment of funds to a wide spectrum of economic activities and achieved the objectives to an admirable extent and played a key role in improving the rate of savings in the country. He touched upon the radical reforms in the banking industry recommended by Narasimham Committee in 1991. He hopes that the coming Twenty-Five years will be rewarding for the nationalized banks, provided they shift their direction and approach towards business, which they have already started.

**Deekshit and Bandyopadhyay**\(^{18}\) (1994) in his paper on "Training for HRD", had stated that the changes in environment and likely changes in technology will completely transform the complexion of future banking and banking management, and in this context, a thorough re-examination of


various aspect of HRD (inclusive of manpower) planning, career path planning, training and education to meet the future challenges need to be undertaken. The issues arising out of such evaluation will be poised and suggestion for alternative design of training and educational system for our banks will be sketched.

Malhotra\(^1\) (1994) in his paper had stated that, "the present need keeping in view the post liberalization era, Indian Bankers will have to concentrate on providing high quality customer service, invest wisely in information technology, develop a fool proof management information system, invest in quality research, train manpower'. The man power is an important aspect of any organization and if any organization had to perform well, the need to have the motivated man power is the first priority. After reviewing the needs for quality human force, the other aspects which need to be touched upon for the purpose of this study have been analyzed below.


Varma, A.K. (1994) in his study on "Corporate credit: Marketing and Management of Scheduled Commercial Banks in India - A Planned approach with reference to State Bank of Bikaner and Jaipur" has analyzed the performance of schedule commercial banks for a period of ten years i.e., 1982-1992. He has taken various parameters for measuring the funds, income, expenditure, profits, business per branch / office, business for employee, return on advances, return on working funds, market share etc.

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Rama Jyotsna Kumari, V.\textsuperscript{21}(1995) in her study "An Evaluation of Performance of Public Vs Private Sector Banks in India" evaluated the performance of public and private sector banks in India. She concluded that the performance of private sector banks had been better than that of public sector banks in several respects.

Imai\textsuperscript{22} (1997) in his book on "A Common sense, Low Cost Approach" expresses effectiveness of organization in terms of reduction of wastage, absenteeism, increase productivity and increase in training days from 0.8 day to 5 days per employee per year indicated the effectiveness. The Training, employee's welfare, development of infrastructure, growth and marketing of bank's various products are some of the sub system. Outside this purview, consolidation of banks and its restructuring, reduction of Nonperforming assets, improving profitability, effective recycling of funds, effective Assets - Liability Management are yet another areas the banks need to concentrate.

Stilglitz\textsuperscript{23} (1998) in his lecture delivered on "Principles of Financial Regulation: A Dynamic Portfolio Approach", at NCAER, had observed the financial sector constitute the 'brain' of the economy and, banks are a major constituent of the financial sector.

Broloi, Jyorish\textsuperscript{24}(2003) in his study on "Financing priority sector by the public sector Commercial Banks and Co-operative Banks: A study of North Cachar Hills District, Assam", made a comparative study of financing priority sector by Public Sector and Co-operative Banks and found commercial banks have a lion's share, when compared to Co-operative Banks.


Adve S. (1980) had some interesting findings in his article "Financial Practices in Indian Corporate Sector," based on the RBI company finance data. He underlined the rising dependence on borrowed capital in relation to the total capital employed in the Indian corporate sector. Trade credit was pointed out to be important sources of capital when the bank credit was squeezed. Making an industry-wise analysis, the author came to the conclusion that the industries with large profit margins and those with large depreciation and development rebate reserves had a relatively lower order of overall indebtedness and many of them also had a lower order of bank borrowings in relation to overall indebtedness. Industries with high profit margin such as silk and rayon textiles, aluminum, basic industrial chemicals and medicine and pharmaceutical preparations had lower proportion of borrowed funds as compared to the average of the medium and large public Ltd. companies.

Jensen and Harris, R. S. (1984), provide empirical evidence to suggest that greater dividends are associated with greater debt use. Should the company choose to issue stock rather than bonds, it is not obligated to make dividend payments. However, the reluctance to pay out dividends has its own consequences. Firms unintentionally send negative signals to investors when there is a decline in consistent dividend payments or a reduction in the amount paid out. This causes a decline in the price of the firm's stock.

Patanger. P.G (1985) in his another macro study of the financial performance of STUs for the period 1976-77 to 1982-83 indicated that the operational cost as whole has not increased in the same proportion as prices of major inputs, which means that transport operation in the nationalized

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sector were not in any more efficient, if not better, than the private operators. He also provides a sound theoretical background base on evaluation of performance. The methodology adopted by all these authors is more less the same.

David C. Cheng, et. al (1989)\(^{28}\) in their paper, ‘Financial Determinants of Bank Takeovers’ found that several studies have examined the determinants of bank merger pricing. Those studies focused on the characteristics of the target, and to downplay the characteristics of the acquiror. Their study found that the purchase price is a negative function of the target’s capital-to-asset ratio. The only variable used in their model is the ratio of acquiror-to-target assets. This study is different from earlier studies of bank mergers pricing in the sense that it provided greater consideration of bidder related variables, used multiple proxies for certain theoretical determinants of merger pricing, and used principal components regression to control potential multicollinearity problems.

Mohd. Akbar Alikhan (1990)\(^{29}\) analysed the financial management of SRTUs in Maharasthra State Road Transport Corporation, during the period from 1970-71 to 1984-85. According to him the main reasons for increase in costs were inflationary tendencies, operational performance, operation of bus services on spare parts and cost of tyre and tubes increased during the study period.

Raghunathan.V. et.al (1991)\(^{30}\) in his work titled the new economic package and the agenda for restructuring the financial sector by discussed the emerging issues relating to new economic policy on the financial sector.

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This article strongly argued that agenda for restructuring the financial sector include the integration of various financial markets, new instruments required for hedging risk, measures for investor protection, appropriate legislation, relevant tax reforms, development of financial infrastructure and the roles of regulatory agencies.

**Neelanjana Mitra (1991)**\(^{31}\) made an attempt to analyze the impact of working capital management on profitability in Indian Tea industry with the help of some statistical tools and techniques. The study revealed that, out of the nine ratios relating to working capital management five ratios registered positive association and the remaining four ratios showed negative correlation with the profitability indicator.

**Ramakrishna (1995)**\(^{32}\) in his paper examined two well known financial distress model namely multiple discriminate analysis and logistic regression analysis by using a sample of 298 firms. The study found that cash flow and working capital are important predictive variables, irrespective of when compared to any other models. The selected models were also found to be capable of predicting with minimum errors, one year in advance, which is vital for the bankers, restructuring agencies and the management to initiate revival process before the company actually gets in to financial distress.

**Praveen Kataria (1995)**\(^{33}\) in his study attempted to predict corporate sickness of the companies. Financial information about all the sick companies was collected for five years before sickness. Healthy companies were matched with the sick companies on the basis of industry composition size. 54 financial ratios and 8 macro economic variables were taken to study

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their effect along with financial ratios. Two group linear discriminate analyses were applied in two parts. In the first part, only financial ratio was taken in discriminate analysis, while the macroeconomic variable was included along with the financial ratios in the second part. The result showed that macroeconomic variable had very little impact on discriminant function.

Vijayakumar A. & Venkatachalam A. (1995)\(^\text{34}\) found that the liquidity ratio, receivables turnover ratio, inventory turnover ratio and cash turnover ratio had influenced the profitability.

White & Liu (1998)\(^\text{35}\) examined the performance of pharmaceutical firms on the basis of scale and investigate the shift in key performance. Sixty-six Chinese Pharmaceutical firms were selected and financial, employee and operational data for 2 years, 1990-1992 were analysed by using OLS regression and longitudinal data. Production output, scales and profits, number of employees and fixed assets were taken as indicator for scale based performance while ratios and profits as percentage of output value, Return on Output, Return on Sales and Return on Assets were chose as indicator for efficiency based measures of performance. It was analysed by the researchers that scale based measures of performance are highly correlated with the firm’s ability to increase factor of production and sale and growth of physical inputs i.e., the firms endowment of fixed assets. Strong correlation has been observed by the efficiency based ratio with intangible assets and their related activities i.e., highly related to store of production related engineering and technical skills, and firm’s ability to leading new products.


Ruhani Ali and Gupta G S (1999) in their paper entitled, ‘Motivation and Outcome of Malaysian Takeovers: An International Perspective’ examine the potential motives and effects of corporate takeovers in Malaysia. The Muller's methodology, which involves the use of accounting measures like size, growth, profitability, risk and leverage, is employed for the study to analyze the performance characteristics of takeover firms in the pre – and post – takeover periods.

Aziz (1999) emphasized in his article that accrual accounting ratios were shown to predict bankruptcy accurately for manufacturing industries. Such financial ratios usually lack theoretical justification. Since bankruptcy is cash oriented phenomenon, the use of variable based on cash flows is theoretically appealing. Statistics shows that more than 300 companies go out of business every week. The high rate of bankruptcy is attributed to the combined effect fierce competition in the market place and heavier debt burdens carried by the companies. While few firms were affected by the challenges, a large numbers of firms were affected by the competition.

Rekha Pai (1999) dealt with the prediction of industrial sickness using multiple discriminant analysis. The data set constitutes 21 financial ratios of 34 Indian sick companies in 2001 and 38 contemporary non sick companies, both selected irrespective of size and industry category 3 years prior to sickness. The multiple discriminant analysis (MDS) showed greater accuracy in predicting industrial sickness up to three years in advance. The model was validated further using a test model, while exhibited very high predictive accuracy of the proposed model.

Ramesh B. & Patil M.R. (1999) have observed the liquidity, productivity and profitability analysis of Goa Urban Cooperative Bank Ltd. for the period from 1985-86 to 1996-97 with reference to SWOT management techniques. i) Strengths, according to them are successful maintenance of cash reserve, proper mix of owned funds, decrease in the percentage of overdue and cost of borrowings, increase in the yield of the bank and the average volume. ii) Weaknesses, as pointed out by them are decreasing trend in profitability, deplorably low rate of return on total assets, insignificant share of other incomes and maintenance of 32 percent as cash or liquid assets. iii) Opportunities, emerge when invested in PSUs instead of investments in liquid assets - when unused deposits are used for agricultural purposes, when concentrate in enhancing other incomes and participate in forex activities and iv) Threats, identified by them are poor profitability, unstable interest earnings, low return on assets, decrease in the trend of owned funds and investments in current assets.

Juma’h & Wood (2000) examined the business performance of UK firms by taking into consideration outsourcing implications on profitability, liquidity, employment cost, Return on equity, research and development expenditures and changes in equity of the company. The results showed that profitability (operating profits and Return on Equity) firstly decreases in the year of outsourcing (1988-1991) and tends to increase the profitability in the subsequent years i.e. after outsourcing announcements (1993-1996). However operating profit and Return on Equity of the sampled firms are above the average of all UK firms Employment cost has been decreased by the outsourcing expectation while Research and Development expenditure decreases after years of outsourcing. Overall it has been analyzed that performance of firms increases after outsourcing announcements.


Trilochan Sastry (2000)\textsuperscript{41} describes two alternate models for future growth of top Indian firms: MBG (Manpower-Based Growth) and KBG (Knowledge-Based Growth). In the first model, revenue growth is fuelled largely by growth in manpower. In the second model, the firm penetrates value-added market segments and growth is fuelled by increasing the revenue per person. He says that the Indian software service providers are in an enviable position due to unprecedented market growth, overseas shortage of manpower, access to high quality and low-cost manpower within the country. It is due to this fact that a proper work climate and various kinds of training facilities are provided to the employees.

Mohammed Omran (2001)\textsuperscript{42} evaluates the financial and operating performance of newly privatized Egyptian state-owned enterprises and determines whether such performance differs across firms according to their new ownership structure. The Egyptian privatization program provides unique post-privatization data on different ownership structures. Since most studies do not distinguish between the types of ownership, this paper provides new insight into the impact that post privatization ownership structure has on firm performance. The study covers 69 firms, which were privatized between 1994 and 1998. For these newly privatized firms, these study documents significant increases in profitability, operating efficiency, capital expenditures, and dividends. Conversely, significant decreases in employment, leverage, and risk are found, although output shows an insignificant decrease following privatization. The empirical results also show that Egyptian state owned enterprises, which were sold to anchor-investors and employee shareholder associations, seem to outperform other types of privatization, such as minority and majority initial public offerings.


Karnik Kiran (2002)\textsuperscript{43} in the NASSCOM white papers gives a comprehensive backdrop to the software industry in India. He talks about it being one of the fastest growing sectors in India, with a compounded annual growth rate in excess of 50%. Despite the global recession and competition emerging from countries such as China, Russia, Ireland and Israel, the Industry is likely to grow by 30%. An important contributory factor according to him has been the supportive and progressive framework provided by government policies. Though Indian IT Industry is doing well, the world wide economic slow down has certainly had its impact. The statistics they provide show the growing importance of the information technology industry as we are now moving into the 4th wave i.e. “The Knowledge Era” and the practice of HR in a knowledge driven era has assumed greater significance since we are looking for knowledge workers today, and hence management of people has become extremely important.

Santana Kumar Ghosh & Santi Gopal Maji (2004)\textsuperscript{44} study observed that the Indian cement industry did not perform remarkably well during this period. Some of the sample firms had successfully improved efficiency during the study period; the existence of a very high degree of inconsistency clearly indicated the need for adopting sound WCM policies by these firms and identified the forces for inefficiency.

Khatik S.K. & Singh P.K (2004)\textsuperscript{45} assessed the importance of WC, components and liquidity position of Indian Farmers Fertiliser Cooperative Limited for the period of twelve years from 1990-91 to 2001-02. This study stated that the short-term liquidity was very much satisfactory due to higher investment in current assets, good position of debtors and higher age of inventory. It insisted for the proper utilisation of inventory.


Rabiul Alam S.M. & Hossain S. Z (2004)\textsuperscript{46} in their field survey examined the strengths and weaknesses of WC of Khulna Shipyard Limited for a period of ten years from 1987-88 to 1996-97. They observed that the company did not estimate the working finance requirements because it had no WC policy and policy for effective use of Operating Cycle Concept. They advised that the company should try to increase WC from the sources like trade credit, which would help to reduce the interest burden.

Hovakimian and Tehranian (2004)\textsuperscript{47} concluded that the importance of stock returns in studies of corporate financing choices is unrelated to target leverage and is likely to be due to the correlation between Pecking order theory and Market timing behavior theory. This study also found that profitability has no effect on target leverage. Unprofitable firms issue equity to offset the excess leverage due to accumulated losses. Thus, this study supports the notion that firms have a target capital structure. However, preference for internal financing and the temptation to time the market by selling new equity, when the share price is relatively high, interfere with the tendency to maintain the firm's debt ratio close to its target.

Mukhopadhyay D. (2004)\textsuperscript{48} indicated that Working Capital Turnover Ratio (WTR) had been found to be negative throughout the study period. It varied between -0.43 times and 0.74 times. This ratio signified that on an average, a rupee of negative WC failed to generate Rs.80 worth of business/sales of the firm which was obviously an alarming position for the management of the Heavy Engineering Firms.


\textsuperscript{48} Mukhopadhyay D. (2004), 'WCM in Heavy Engineering Firms – A Case Study', The Management Accountant, Vol. 15 (26), April, p.321.
Bardia, S.C. (2004)\textsuperscript{49} conducted a study on WCM efficiency with reference to Steel Authority of India Ltd’ and indicated that there was a relationship between effective utilisation of current assets and profitability of the companies under study. There seemed to be a wide range in the degrees of such relationship between companies.

Amit K. Mallik, Debashish Sur and Debdas Rakshit (2005)\textsuperscript{50} studied the relationship between WC and profitability in the context of Indian Pharmaceutical Industry and concluded that no definite relationship could be established between liquidity and profitability.

Chakraborty S. K. (2005)\textsuperscript{51} in his study found that age, retained earnings, and profitability were negatively correlated with the debit equity ratio, while total assets and capital intensity were directly related to it. He felt that a high cost of capital for all the consumer industries was due to their low debt component. His indirect attempt to test the MM hypothesis for 22 firms showed that cost of capital was almost invariant to the debt equity ratios.

Mahanti R and Mahanti P.K (2005)\textsuperscript{52} observed that software is omnipresent in today’s world. India is a hub to more than 1000 software companies. The software industry is a major employment providing industry in India. As a wholly intellectual artifact, software development is among the most labor demanding, intricate and error-prone technologies in human history. Software’s escalating vital role in systems of pervasive impact

presents novel challenges for the education of software engineers. As software industry is the major employment providing industry, it is essential for the employees to remain in the industry and meet the demands.

Lazaridis I. & Tryfonidis D (2006) analysed that the relationship between WCM and profitability of listed 131 Companies in the Athens Stock Exchange for the period from 2001-2004. They identified that the negative relationship between profitability and the cash conversion cycle and the creation of profits needed for handling correctly the cash conversion cycle and keeping each different component to optimum level.

Ashish Arora and Surendra Kumar Bagde (2006) in their study on “the Indian Software Industry, the human capital story” have empirically investigated how the software exports by certain states in India are influenced by local levels of human capital. The importance of availability of skilled man power in the success of Indian Software exports, has been recognized by several research studies. A note worthy feature of Indian software industry is the predominant share of engineers among software professionals in India. The authors argue that some states were favoured locations for software industries as they had higher stocks of human capital and they allowed private engineering colleges to operate, earlier than other states. It is also related to a recent literature that examines inter state variation in institutions and policies. The bulk of Indian software industry is concentrated in a few centers like Bangalore and Chennai.

Narendar V. Rao et.al., (2007) his study investigated the relationship between financial leverage and performance for a cross-section

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of listed Omani companies and found a negative relationship that is contrary to the view held in Western countries. The high cost of bank debt in Oman coupled with the absence of a well-developed bond market was viewed as the primary reasons for the observed relationship. In addition, the very low, flat corporate tax rate in Oman implies that debt does not confer the same level of tax shield benefits in Oman as it does in Western countries. Hence, at this time, use of a high level of debt financing by Omani companies may not be a prudent strategy.

Vanitha S. & Selvam M. (2007) conducted a study on ‘Financial Performance of Indian Manufacturing Companies during Pre and Post Merger’. In order to evaluate the financial performance, ratio analysis, mean, standard deviation and ‘t’ test have been used as tools of analysis. The study found that the quick ratio of merged company during pre and post merger periods was in conformity with the standard quick ratio of 1:1. This means that all sample units did have sufficient quick assets to meet current liabilities. This is an indication of the health of the firms. The analysis shows that the average net working capital of all sample companies had increased after the takeover of administration by the new management. The increase in the net working capital after merger might have been due to addition of assets of the acquired firms. The growth of operating profit of 11 companies out of 17 sample companies was statistically insignificant, but other six companies achieved statistically significant growth of operating profit after merger. Returns on Investment is one of the most important ratios used for measuring the overall efficiency of a manufacturing sector. Hence ROI (Returns on Investment) is used in this study. It is interesting to note that the average amount of net worth of sample companies after merger was higher than that of pre merger period.

Singh and Pandey (2008)\textsuperscript{57} said that working capital management is the management of current assets and current liabilities. Maintaining high inventory levels reduces the cost of possible interruption in the production process or of loss of business due to the scarcity of products, reduces supply costs and protects against price fluctuations. Granting trade credit favors the firm’s sales in various ways. Trade credit can act as an effective price cut and incentives to customers to acquire merchandise at times of low demands. Thus, greater the investment in current assets, lower is the risk, and profitability obtained. Similarly trade credit is a Spontaneous source of financing that reduces that amount required to finance the sums tied up in the inventory and account receivables. Profitability and liquidity comprises the salient and all too often conflicting goals of working capital management. The conflicts arise because the maximum of firm’s returns could seriously threaten liquidity and on the other hand, the pursuit of liquidity has a tendency to dilute returns.

Azhagaiah and Gangadevi (2008)\textsuperscript{58} studied the leverage and financing decision for the selected 30 electronic companies for the five years period ranging from 1998 to 2003. In his study he found that the company has a high operating leverage should kept low financial leverage and vice-versa. So, it is desirable that a company has low operating leverage and a high financial leverage.

Dheenadhayalan V. (2008)\textsuperscript{59} pointed out that the reasons for the decrease in current assets during the study was due to decrease in inventory component and cash and bank balance of SAIL Company. The company had been maintaining an average of Rs.0.93 worth of liquid assets for every one

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rupee of current liability which signified the sufficiency of liquid assets in meeting the short term liabilities.

Ahmed Arif Karim Almazari (2009)\textsuperscript{60} indicated that operating profit margin ratio represented the pure profit of the company. It increased positively from 4.58 percent to 13 percent for the given period which was a good indication of a company’s management performance.

Ramaratnam, M.S. & Jayaraman R (2010)\textsuperscript{61} conducted a study on measuring the financial soundness of select firms with special reference to Indian steel industry – An empirical view with Z score, The Financial soundness of a firm is reflected through various financial parameters which are closely associated with each other. A general belief is that a firm’s operating performance depends on certain key financial factors viz., turnover, profit, asset utilization etc and the variables which are found in profit and loss account and balance sheet of a firm have a direct or indirect relation with each other. By establishing a close relationship between the variables, a firm can analyze its financial performance in terms of liquidity, profitability, viability and sustainability. In order to measure the performance, ratios, the indicators, are normally used to identify the financial health of the firm. As far as ratios are concerned, there are more than 40 different types of ratios are available to analyze and predict the financial soundness of a firm. Since single ratio does not convey much of the sense, Altman combined a number of accounting ratios to form an index of profitability, which is regarded as an effective indication of corporate performance in predicting financial soundness of a firm. The main findings were:


\textsuperscript{61} Ramaratnam, M.S. & Jayaraman R (2010), A study on measuring the financial soundness of select firms with special reference to Indian steel industry – An empirical view with Z score, Asian Journal of Management Research (Online Open Access publishing platform for Management Research) http://www.ipublishing.co.in/ajmrvol1no1/EIJMRS1056.pdf
1. Shortage of working capital results the companies to go for debt rising which in turn cause high earning for share and it is favorable for profitability of the company.
2. Since the debt position is lower than the equity value, it helps the company to maintain a reasonable leverage position.
3. Operating efficiency of the firm is good for JSW Steel and Tata steel.
4. The retained earnings ratio of the sample companies is quite satisfactory which strengthens the viability over the period of time.

Quresh et al., (2010)\(^\text{62}\) examined the impact of Human Resource Management practices on financial performance. This study also identified the factors of HRM practices including employee participation, training, job description, career planning system, compensation system, selection system, and performance appraisal system. According to this research, all of these factors had positive impact on the financial performance of the banks.

Nimalathasan B.& Valeriu Brabete (2010)\(^\text{63}\) pointed out capital structure and its impact on profitability: a study of listed manufacturing companies in Sri Lanka. The analysis of listed manufacturing companies shows that Dept equity ratio is positively and strongly associated to all profitability ratios (Gross Profit, Operating Profit & Net Profit Ratios).

Dhanabhakyam M. & K. Pongiannan (2011)\(^\text{64}\) The study has attempted to examine the financial performance of Wipro Technologies and Infosys Technologies Ltd. The financial performance is generally identified with profitability of the firms. The Secondary data is used for the mode of the


collection of data from capital line financial data base. Period ranging from 1997-98 to 2006-07 has chosen for the study. The study found that Infosys and Wipro, the two big giants of the Indian IT industry, announced that their annual revenues had crossed the $1 billion (Rs 4,400 crores) mark. It’s an important milestone, as it catapults them into the big league in IT and gives them greater visibility in the corporate world. Infosys beats Wipro hands down on every relevant profitability ratio—return on equity (39 per cent against Wipro’s 26 per cent), return on capital employed (47.6 per cent against 31 per cent) and operating margin (33 per cent against 22 per cent). This is partly because Infosys billing rate, both onsite (work performed at a client’s office) and offshore (in India), have been higher than Wipro’s. "In the past, this differential was as high as 10-15 per cent. Although it has narrowed, Infosys continues to command higher rates because of its better marketing”. "Infosys is more focused on cost than Wipro. Infoscians are more regimented than Wipro, and programmed better to implement projects on time."

Puwanenthiren Pratheepkanth (2011) Capital Structure and Financial Performance: Evidence from Selected Business Companies in Colombo Stock Exchange Sri Lanka. Correlation analysis explains, there is a weak positive relationship between gross profit and capital structure (0.360). At the same time, there is a negative relationship between net profit and capital structure (-0.110). It reflects the high financial cost among the firms. ROI and ROA also has negative relationship with capital structure at -0.104, -0.196 respectively. It is focused on the overall point of view of the relationship between the capital structure and financial performance. There is a negative association at -0.114. Co-efficient of determination is 0.013. F and t values are 0.366, -0.605 respectively. It is reflect the insignificant level of the Business Companies in Sri Lanka. Business companies mostly depend on the debt capital. Therefore, they have to pay interest expenses much.

Nandi (2011) made an attempt to examine the influence of working capital management on corporate profitability. For assessing impact of working capital management on profitability of National Thermal Power Corporation Ltd. during the period of 10 years i.e., from 1999-2000 to 2008-09 Pearson’s coefficient of correlation and multiple regression analysis between some ratios relating to working capital management and the impact measure relating to profitability ratio (ROI) had been computed and applied. An attempt had been undertaken for measuring the sensitivity of return of investment (ROI) to changes in the level of working capital leverage (WCL) of the studying company.

Karaduman, Akbas & Caliskan (2011) have tried to shed light on the empirical relationship between efficiency of working capital management and corporate profitability of selected companies in the Istanbul Stock Exchange for the period of 2005-2009. The companies should focus on working capital management in order to increase their profitability by seriously and professionally considering the issues on their cash conversion cycle which was derived from the number of day's accounts payable, the number of day's accounts receivable and the number of days of inventories. The findings suggested that it may be possible to increase profitability by improving efficiency of working capital.

Research Gap

In the process of literature review, the researcher has gained knowledge on the true nature of operation and strength and weakness of IT companies. There are good number of reviews relating to banking, pharma, steel and other companies. The survey of literature shows that most of the study on IT companies studied the issues at macro level. Studies on the


financial performance of these companies are very few. The contribution of major IT companies for the economic development of the nation was not analyzed in great detail. It was further noticed that financial performance study on IT companies was also scanty. As very few studies in India dealt with financial performance of IT companies, the prevailing issues of IT companies have been identified as a research gap, the same has formed the basis of this study.

The analysis on the maintenance of financial health and the management of IT companies has certain strategic importance so that there is a need for periodic studies and reviews to address the issues in financial performance. By bearing this in mind, the researcher intends to fill the above said gaps in this study which analyses the financial performance of IT companies by focusing on the liquidity and profitability aspects.