CHAPTER 1

INTRODUCTION

Information Technology Industry in India is one of the swift emerging industries. Indian IT industry has put up precious trademark equity for itself in the international market. IT industry in India consists of the software industry and information technology enabled services, which as well includes business process outsourcing industry. India is deemed as a pioneer in software development and a preferred destination for IT and IT-enabled services.

1.1 Evolution of Indian IT Industry

The source of IT industry in India can be drawn back to 1974, while the mainframe manufacturer, Burroughs, requested its Indian sales agent, Tata Consultancy Services, to export programmers for installing system software for a United States client. The IT industry began underneath an adverse circumstance. Local markets were not present and government policy towards private enterprise was unreceptive. The industry was begun by Bombay-based multinational which came into the business by supplying programmers to global IT firms situated abroad.

In that time, Indian economy was state-controlled and the state remained unreceptive to the software industry during the 1970s. Import tariffs were soaring (135% on hardware and 100% on software) and software was not recognized as an industry so that exporters were not fit for bank finance. In 1984, when Rajiv Gandhi became Prime Minister, Government policy towards IT sector was altered. His New Computer Policy consisted of a enclosure of abridged import tariffs on hardware and software (condensed to 60%),
recognition of software exports as a "de-licensed industry", i.e., hereafter qualified for bank finance and at liberty from license-permit raj, authorization for foreign industries to set up wholly-owned, export-dedicated units and a project to set up a series of software parks that would cater infrastructure at below-market costs. These policies put down the foundation for the development of a world-class IT industry in India. At present, Indian IT companies as such Tata Consultancy Services, Wipro, Infosys, HCL etc., are renowned in the international market for their IT prowess. Several of the main factors which played an important role in India's materialization as key international IT player are:

1.1.1 Indian Education System

The Indian education system lays a strong importance on mathematics and science, ensuring in a great number of science and engineering graduates. Mostly in excess of quantitative thoughts together with proficiency in English has resulted in a skill set that has enabled India to garner the advantages of the contemporary worldwide demand for IT.

1.1.2 High-Quality Human Resource

Programmers in India are well known for their strong technological and analytical skills and their readiness to accommodate clients. India as well has one of the largest pools of English-speaking professionals.

1.1.3 Competitive Cost

In India, the cost of software development and other services is extremely competitive as compared to the West.
1.1.4 Infrastructure Scenario

In India, the IT industry has as well gained vastly from the accessibility of a robust infrastructure (power, telecom, and roads) in the country.

In the last few decades, Indian IT industry has witnessed incredible augmentation. Cities like Bangalore, Hyderabad and Gurgaon have progressed into international IT hubs. Quite a lot of IT parks have come up at Chennai, Pune, Bangalore, Hyderabad, Gurgaon etc. These IT parks provide Silicon Valley type infrastructure. In the radiance of the entire feature that has added to the potency of IT industry in India, it shows that Indian accomplishment tale is all set to prolong.

Some of the key highlights of the sector in FY15:

- Industry revenues (including e-commerce) predicted to increase by 13% in FY2015, to cumulative USD 146 Billion

- Industry a net hirer, adding up approximately 2,30,000 employees in FY15; center of attention on skill over scale, embedded non-linearity - 7% employee development corresponding to 13% revenue development

- Digital Disruptions producing new opportunities- Digital accounting for 12-14% of business revenues

- Product engineering solutions fastest rising export revenue segment at 13.2%

- Industry building competencies through collaboration, acquisitions, and partnerships- industry M&A in excess of USD 5.3 Billion in FY2015
• Swift growing product and startup ecosystem redefining improvement-3100+ startups, 4th largest startup hub in the worldwide.

• Investments in technology by government for USD 26 Billion in FY2015 driving domestic market

1.2 IT Industry Structure

The size of global spend, according to NASSCOM, has been estimated to be around USD 650 billion of which the India share in global sourcing is about 67%. IT industry in India could be broadly separated into 2 marketplaces: domestic marketplace and exports marketplace. The exports marketplace constitutes the major segment accounting for 75% of the overall revenue generated by the software industry in India.

The domestic IT marketplace is generally divided into the following 4 categories: IT Services, software sector which comprises of engineering and Research and Development services, IT-enabled Services, Business Process Management, and Hardware. Whereas IT Services accounted for 34% of the entire revenue produced by the domestic market, the Engineering Services, Research and Development, Software Products sector jointly reported a 10% of the revenue. The IT-BPM segment, on the other hand, supplied 7%. Hardware is the leading section with a share of around 49%.

The exports market is conquered by the IT services market holding a share of 56.4% in the software and services exports followed by the IT-BPM section with 26.7% share and the software products and engineering services section with 16.9% share. The Indian hardware industry is at present projected to be in the fraction of 30% domestic, 1.25% exports and the residual being imports. The domestic market itself tenders incredible prospective for hardware companies, therefore having incredibly a small amount of companies
endeavoring into hardware exports. Imports of IT hardware which appear to be a great component of the industry are mostly from Taiwan, China, and Korea. Recently, though, Multi-National Companies in the hardware section have been viewing India as a hub for setting up hardware manufacturing facilities.

*Table 1.1 India’s IT Services*

Source: NASSCOM
1.2.1 IT Services Overseas

Indian IT Services exports grew to nearly USD 110 billion in FY06, registering a 10.3% year on year growth, and is further expected to reach higher in FY17. Revenue from ‘projects’ dominated the IT Services exports with a share of 66%.

Table 1.2 India’s IT-BPM Export

![Table 1.2 India’s IT-BPM Export](image)

Source: NASSCOM
Within the IT-BPM segment, Customer Interaction Services account for nearly India’s IT Overseas 45-50% of the total IT-BPM services, exports whereas finance & accounting adds for the residual 40-45%. Human resource and further high-end knowledge-based procedures account for 2% and 8-10% correspondingly.

The Software product, Engineering services and Research and Development section contributes about 17% of the software and services export. India is finely situated in the engineering, Research and Development services section. Other than the Indian companies providing these services, numerous foreign companies (both captive and third party) are as well setting up base in India to offer these services. Abroad companies operating in sectors like high–tech, automobile, aerospace, heavy machinery, telecommunications, construction and industrial products are looking at offshoring their engineering, Research and Development connected work to India.

Few significant uniqueness of the IT sector in Indian comprises:

- Export-intensive: Always since the industry’s evolution, exports have been the main contributor to the industry.

- Attentiveness on Low-end services: Low-end services as such customized software services and maintenance have been the main strength of the IT companies in India. These companies are at present moving up the value chain contribution end-to-end solutions to clients.

- Labor centric industry: The most landscape of the services provided by the industry formulates human resources an important driver for the industry.
• Disjointed industry: More than few thousand companies which operate in the IT space in India, providing an extensive range of software products and services. A great number of these companies are unorganized players.

• Skewed concentration: The revenues of the top 4 companies, TCS, Infosys, Wipro and Tech Mahindra, including income of their subsidiaries, relate for about 22% of the entire industry. This skewness is all the additional distinct in the case of software services.

1.3 Emerging Trends in the Indian IT Services Industry

Although the worldwide IT players are assertively scaling up their operations in India, due to the benefits that the Indian industry provides, the IT companies in India are also planning to beat the universal market. The companies are observing momentous transformation with regard to their service offerings and geographical attentiveness. At present, companies are growing their service offerings from application development and maintenance to high-end services like consulting, testing, and engineering designing. The global delivery model has not only assisted the companies in delivering the quality of work but as well assisted them to manage costs. In the recent years, the Indian companies have positioned themselves glowing to reap benefits of the emerging scenario in the IT sector.

1.3.1 New Service Offerings

The IT companies in India are expanding their service offerings to cater a whole basket of services to their clients. These new services contain IT consulting, testing, business process management, and IT infrastructure services, which in a way permits the IT companies to de-risk their business
from pricing demands and penetrate into newer areas which offer them higher expansion and profitability.

1.3.2 Larger Deal Size

IT companies in India have effectively scaled up operations and made a mark in the global outsourcing market, obvious from the big deals bagged by the Indian IT companies in the recent past, including the British Telecom-Tech Mahindra deal which was worth around a 1 billion USD, the Pearl Insurance-TCS deal which was worth about £ 500 million, the Skandia-HCL Technologies deal which was worth about USD 200 million and the Kimberly-Clark-TCS deal which was worth about USD 100 million. The majority of the deals bagged by the main companies were in the Banking and Financial Service space which go over the expansion in this vertical.

1.3.3 Growing presence of MNCs

Cost arbitrage and the accessibility of a great talent pool of people have fascinated numerous multi-national companies to India. Big players like IBM, Capgemini, Accenture, and Oracle among others have not only amplified their headcounts in India as well outperformed their international performance in terms of income growth. Their Indian operations were witnessing sturdy development as compared to their international business. A few of the main international companies like Intel, IBM and CSC are curbing jobs overseas and shifting their base to India.

1.3.4 Emerging Markets

In terms of geographical involvement, the United States prolongs to continue as the main marketplace for IT companies of India, accounting for major of the software and services exports from India. On the other hand,
Europe as well is emerging as a significant marketplace for the IT industry in India, bearing in mind the fact that the share of exports to Europe from India increased year on year. Following the United States, companies in India are looking at the European region as a prospective marketplace for exports and in addition to developing their international presence. Mergers and acquisitions have been one of the routes that the companies in India have adopted to develop their existence in European markets.

1.3.5 Changing Growth Drivers

In the recent years, there has been a revolution in the income composition of companies in India. The income contribution of high-growth segments such as package implementation, infrastructure management services, testing and consulting has witnessed an incessant raise. This is in spiky disparity to the former trend in which nearly all companies were mainly dependent on the Custom Application Development and Maintenance services section for their income. Nowadays, the share of Custom Application Development and Maintenance services section has reduced. As a result, newer service lines are not just enabling Indian companies to enhance their sales by cross-selling to their present customers, but as well improving their regular billing rates and identification of being end-to-end service providers.

1.3.6 New End-users

In terms of BPM industries, the BFSI, and hi-tech/telecommunication industries stay as the leading verticals for the IT companies in India. Jointly, these segments account for half of the Indian IT-ITBPM exports. However these verticals have excellent development possibilities, other sectors such as manufacturing, utilities, retail, healthcare etc., are also rising as capable segments for the IT companies in India. Whereas the BFSI segment has the
prospective to offer large size contracts to the IT companies, the manufacturing segment can offer a large number of deals/assignments to the players in India. Currently, the IT companies in India are on a hiring spree which signifies their bullishness on their order flows. Most of the major players have improved their manpower by 15-50%, and the trend is estimated to continue further. As a result, the companies are anticipated to scale up their operations. The IT companies in India are also vying for inorganic expansion, with a quest for newer geographical areas, service offerings, retail, healthcare domain expertise, customers, and markets.

1.4 Concerns for the Indian IT Industry

Although requirement conditions have been positive, the IT segment in India is bared to few risks which might put off the development. An appreciating rupee value, predictable sluggishness in the United States economy, scarcity of skillful manpower, constraints in domestic infrastructure and competition from other international players offering manpower at little cost like China, Vietnam, and the Philippines might as well result in a negative impact on the development of the IT companies in India. In addition, mounting activities of international Multi National Companies in India will create hard employee retention for companies in India. In the opinion of Nasscom, it was predicted in the year 2009, there will be a scarcity of half million manpower in the IT and ITBPM segments. With an industry attrition level floating about 20-25%, for smaller players it will be often higher than this. Companies are likely to tender a raise of 10 to 15% in salaries in the forthcoming years. From a financial perspective, salary inflation of 10-15% and forex variation could lessen the top line also the bottom line of the companies. Except if the Government defers the withdrawal of tax incentives which is due to end after 2009, IT companies operating out of the Software
Technology Parks of India are probably to witness an increase in their tax liabilities, which might decrease their profitability further.

Table 1.3 Key Positives & Negatives for the Indian IT Industry

<table>
<thead>
<tr>
<th>Positives</th>
<th>Negatives</th>
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<tbody>
<tr>
<td>Growth in IT spending</td>
<td>Rupee Appreciation</td>
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<tr>
<td>Opening up of newer geographies like Europe</td>
<td>Anticipated slowdown in the US economy</td>
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<tr>
<td>Strong volume growth</td>
<td>Wage inflation</td>
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<tr>
<td>Increase in offshore spending</td>
<td>Higher Attrition rate</td>
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<tr>
<td>M&amp;A to increase reach, clients and offerings</td>
<td>Lack of proper infrastructure</td>
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<tr>
<td>Setting training and development centres to</td>
<td>Competition from low cost countries, China,</td>
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<tr>
<td>train fresh entrants</td>
<td>Philippines &amp; Vietnam</td>
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Source: D&B Research

Although the software industry in India had grown to a prominent level in the last few decades, it has a narration of well over thirty years. The process of development has been chronicled from numerous perspectives. The familiar factors that are extensively perceived to have been optimistic influences on the development and expansion of this industry are the availability of skillful, export orientation, English-speaking manpower, policy initiatives of the government and the broad network of Indian expatriate in the international customer organizations. Swift advances in Information Technology and its convergence with communication technologies offered to augment to some expansion accelerators. Several of those accelerators were in the form of new opportunities like Y2K and the internet; a few were in the form of new business models like offshore development and remote services.

The growth in the count of companies in any industry is a straight consequence of the apparent attractiveness of the software industry. High profitability, low entry barriers, a favorable regulatory regime and a buoyant high growth market encouraged access to new players in the software industry at a swift pace. The marketplace for software services comprises 3 distinct sections. First and by far the prevalent in terms of potential is the enterprise
sector, whose core business is not IT. The second section is the independent Software Vendors, whose core business is the advancement and trade of packaged software products and tools, as well with a definite level of customization and implementation. The third section consists of the intermediaries who service the prerequisites of enterprise customers. Quick advancement in the information and communication technologies and its junction has significantly changed the role of IT in many of the organizations. This changing role of IT has in turn distorted their outsourcing strategy and buying behavior. The IT spend of any organization could be seen to offer a hierarchy of benefits. At the elevated side, there are ideas and solutions that create the competitive advantage for the organizations. At the lower end of the hierarchy is the maintenance and operation of the IT infrastructure, layering all aspects of the organizations operations. Huge enterprises are likely to have a superior percentage of their IT spend occurring at the lowest end of the ladder. The independent software vendors are expected to spend a superior proportion of their IT budgets on the elevated side of the ladder since IT products are their core business. In the case of intermediaries, their IT spend is intended towards constructing their core competence and therefore will be apt to get clustered at the higher end of the ladder.

The history of the software industry in India might be reckoned from 1974 when Tata Consultancy Services started off its operations. Tata Consultancy Services with its united venture turned out to be one of the largest software exporters in the early days. Nevertheless, exports turned out to be the core focal point of companies sometimes roughly in the late 1980s and early 1990s. A main event in the industry was, while Texas Instruments planned to establish a 100 percent foreign owned export oriented and operated subsidiary. This wedged on swiftly, with great software companies like Motorola, Siemens and numerous more establishing their companies in India as
subsidiaries. Software companies turned out to be Research and Development partners for large multinational companies, helping them to accomplish promote sooner.

After the outsourcing wave in India, a great amount of development has been seen by the software industry. Rising cost pressures on international corporations, a mounting focus and core operations by clients and technological advancement completed the work been offshored to India as the most feasible alternative. The software and service industry in India turned the slowdown into a prospect.

Small and middle IT Companies comprise about 60 percent of the software industry in India and contribution of these small and middle IT companies for the overall software exports improved from 25 to 35 percent. Small and middle IT Companies with a resonance business model and focused activity developed in spite of a challenging marketplace. The victorious technologies that Small and middle IT Companies focused was on:

- Manufacturing of software and chips that dramatically cut the cost of internet access devices required for sending video, voice, and data on the internet.
- Requirement in telecom software solutions embedded on the chip used in extensive band CDMA phones, E - Security solutions to clients.

1.5 Fragmentation

IT industry in India, particularly the software is extremely polarized. At one side of the spectrum, great companies with international operations and infrastructure have emerged; whereas on the other, numerous small techno-entrepreneur driven companies functioning in alcove sections have started
playing a significant task in the advancement of the software industry. Though, a momentous figure of companies which were formerly involved mainly with low-end services has vanished due to the demanding marketplace circumstances made worse by the deficient of any core-competency. There are 2 most important delivery models in use for software and services exports, specifically onsite and offshore services. Onsite services involve project execution at the client facility abroad. Offshore services involve the use of rapid data communication links, which permit computers located wherever in the universe to be used by the programmers in India on a real-time and on-line basis. The offshore model permits a client situated wherever in the globe to observe the software improvement on a minute-by-minute basis, ensuring quality checks, simple communication with remote programmers, and proficient software development translating into momentous time and cost savings. The gross margins in the offshore business are classically privileged than the margins in the onshore business.

Income from software services is derived from software services and technology provided on either variable- time frame basis or fixed price, fixed-time frame basis. Income from services offered on variable time-and-materials basis is recognized in the phase in which the services are offered and costs incurred. Income from fixed price, fixed-time frame projects is recognized simply on a percentage of achievement bases.

1.6 Government Policies-Impact on Software Sector

➤ Zero Duty Regime

India coupled the Information Technology Agreement before 2 decades which is a many-sided agreement within the WTO which intends to enlarge global trade in Information Technology products. As per the agreement,
customer’s duties on Information Technology items were to be brought down in stages to zero.

- **Excise Duty at 8 percent**

  The Decrease of excise duty from 16 percent to 8 percent on Information Technology and Information Technology associated products will assist in combating gray marketplace, dropping the price and offer an enhancement to demand.

- **STPs**

  Software Technology Park is an independent body and comes underneath the department of electronics, Government of India. The Software Technology Park plan permits 100 percent export oriented firms a tax-free status for 5 years from the first 8 years of operation. This method offers them marketplace analysis, project approvals, marketing support, and training. The Government of India has encouraged several Software Technology Park in quite a few places across India. Companies positioned in Software Technology Park enjoy the benefits of single-window authorization for all regulatory compliance issues. The Companies benefit from duty-free imports of proficient equipment and duty-free purchases.

- **100 percent FDI**

  The GOI allows for 100 per cent FDI equity in ITES companies.

- **Liberalizing of the Telecom Sector**

  Liberalization of the telecom sector permitting private players in International Long Distance, National Long Distance and let out line services.
➢ State Governments

A variety of state governments has launched initiatives to support investments in the Information Technology Enable Services sector. The demand for software services over the small to middle period is expected to be export-led. Though, India has a momentous existence in only 2 of the 10 main IT services international, i.e., custom Application Development and Application Outsourcing.

1.7 Financial Performance

The affiliation between investment in information technology and its end product on organizational performance continues to interest intellectuals and Researchers. In numerous cases, due to the nature of the research design engaged, this stream of research has been unable to identify the impact of individual technologies on organizational performance. The current study posts that the driver of Information Technology impact is not the venture in the technology, but the real practice of the technology. This scheme is tested in a longitudinal situation of a healthcare arrangement comprising 8 hospitals. Monthly statistics for a 3-year phase on a variety of financial and nonfinancial measure of hospital performance and technology practice were examined. The data investigation provides support for the technology usage performance link subsequent to controlling different exterior factors. Technology procedure was certainly and notably connected with measures of hospital income and quality, and this outcome occurred subsequent to time lags. The analysis was triangulated by means of 3 measures of technology usage. The broad support for the principal scheme of this paper that “actual usage” might be a key variable in elucidation the impact of technology on performance recommends that oversight of this variable might be a mislaid link in IT payoff analyses.
Organizations view investments in information technology as a way to battle competition by improving profitability, productivity, and quality of operations. The Department of Commerce approximates that around 46% of all equipment expenditure in the United States is for Information Technology equipment and software, United States Department of Commerce and in spite of financial slowdown, expenses by the Information Technology segment is anticipated to augment. With augmented investments in technology approaches the accountability to offer economic validation. At present, more than ever, Information Technology executives come across the rationalization issue due to superior management’s insistence that the investment is appropriately utilized. In current years, a surge in the quantity of studies that inspect the IT payoff is a witness to this challenge. In doing so, the Information Technology payoff literature has observed the connection between investments in Information Technology capital and labor and their outcome on organizational performance. On the other hand, mostly due to the nature of the research designs engaged, this stream of research has not definitively recognized the effects of usage and impact of individual technologies on directorial performance. Kelley utters that one reason the technology productivity connection appears to be mysterious is that the aggregated unit of analysis at the organizational level formulates it difficult to separate the impact of any individual technology. In addition, Information Technology payoff studies have fluctuated in the chosen variables and the level at which those variables were collected, i.e., strategic business unit level, industry level or firm level. Research designs have also diverse from a snapshot of the performance variables to longitudinal data. Maybe one of the largely severe issues has been that a small number of studies have captured the real usage of the Information Technology. In addition, simply probing the dollars invested in Information Technology might not be a precise reflection of the efficiency for the reason that the amount of its usage may diverge across
firms, industries or processes. Therefore, there is an invalid Information Technology payoff prose in evaluating the impact of individual technology practice on organizational performance. A connected stream of research inspects the issue of technology in the context of technology acceptance. The comparability of self-reported practice and objective or actual practice remains a notorious point in information systems research. The self-reported procedure might encourage biases due to having the similar respondent response alike questions on their awareness of the Information Technology and its effectiveness known as common method variance. Additional, there is proof signifying that definite usage and supposed usage might not be harmonizing. Since most studies to date have been in laboratory settings with scholar subjects, there is a plus to examine an autonomously monitored and goal determination of technology practice. This study widens in the line of research by probing the technology usage concern in the field setting of a hospital network. Since the Information Technology payoff journalism has largely unnoticed Information Technology usage, and the usage literature has not scrutinized the consequence of definite usage on organizational performance, the objective is to bridge the Information Technology payoff and usage literature by investigative technology usage and its impact on company’s performance. Additional this paper deemed the application of a strategic technology in healthcare organizations—specifically, decision support systems and their impact on organizational performance. Monthly data on technology usage and company’s performance for 8 hospitals over a 3-year time perspective were collected. The connection between a variety of financial and nonfinancial measures of performance and technology practice was anticipated to evaluate the payoff resulting from technology use, after controlling for applicable exterior variables.
Nowadays, management has been positioned under mounting pressure to put into practice financial strategies that generate value for shareholders. Several of the methodologies used for conventional analysis of business performance have been futile in detecting the accounting manipulations that frequently take place. Profit is an opinion and cash flow is a reality. Whereas reported profit could be influenced or even indistinct in numerous ways, cash flow cannot be subjected to any form of imaginative accounting. Importance of cash flow has put the format for the growth of financial strategies connected to the formation of value. In the earlier period, management has invented and initiated a strategy and then attempted to determine its impact. This approach has been mostly influenced by the information that an appropriate strategy assessment technique has not been obtainable in a straightforward and significant format. Auspiciously a relatively straightforward approach does survive for estimating value created by business strategy. The challenge for the global melt down is to employ performance measurements which can be incorporated throughout the process of formulating strategy. It could assist launch criteria for selecting the right strategy using sensitivity investigation to maximize value creation. The shareholders or owners are forever the left over claimants who require being pleased with appropriate returns. Lacking this, the business entity is no longer feasible and is not expected to persist as a departing concern.

The valuable and strong performances of a few businesses are calculated by its optimistic financial performance. In the past few years, the international economic development has shifted the effectiveness equation from measurement by accounting profits to the extent by the economic profits. The financial function could play a front role in emphasizing things that are significant to accurate economic performance. At the micro economic level, the objective of a venture is to produce utmost shareholder value. With the
globalization of capital markets, strengthening of competition and massive privatization initiatives, shareholders value establishment is ahead of the attention of executives all over the world as well as India. The increasing prevalence of the shareholders prosperity culture is mostly an outcome of quite a few developments like:

- Globalization and deregulation of the capital markets.
- Go forward in Information Technology.
- Additional liquid securities markets.
- Development in capital market regulation.
- Generational transformation in attitudes towards savings and investments.
- Growth of Institutional investment, etc.

In the fresh ambiance characterized by heightened consideration to return, investors provide their funds in the companies where management advance is based on shareholder value maximization. But the investors do not attain sufficient reward for the risk they are undergoing; they take out their funds and modify them to more smart opportunities. With globalization paving the approach for enhanced mobility of wealth, on the macro – economic level, investors transfer their capital across political limits in quest of relatively elevated yields. This disclosed that those countries whose financial systems are not based on the standard of maximizing shareholders value would get starved of funds. The performance of a company can be examined in several ways. It could be judged with respect to competitiveness, marketplace, technology adoption, environmental guard and strategic positioning. The
performance of a company in the specified areas could be clearly reflected in the financial statement of the specific company. Financial statements are the summary of a diversity of financial activities which provided information in the suitable form. Through analyzing these financial statements and assessing the connection among the various components, a company’s financial position and performance could be simply interpreted. Financial performance is the operating effectiveness of a company in terms of the financial parameter. The financial effectiveness of a corporation could be calculated in terms of stability, solvency, liquidity, turnover ability, capitalization, coverage ability, profitability, and cost of capital, leverages, and operating cycle.

Finance is the nerve centre and life-line of every economic activity and as a result, ubiquitous in every sphere of financial and business life. It plays a tremendously crucial role in the continuity and growth of a business. Financial management has been viewed as an integral part of the overall management. An enterprise, which entrusts itself to an activity, entails finance. No business company could be established, promoted, and extended without sufficient financial resources. Success and endurance of a business company depends on how well its economic function is managed. The company might have plentiful human resources and physical resources, however if the accessible funds are not appropriately utilized for the benefit of the company, it will approach a premature end. Hence, the finance manager has to make use of the available funds for the advantage of the business company. All effort should be made to create the finance function as efficient as possible. Successful financial management of a business company is manifested by certain benefits, like augmented profitability, raising share prices, standard dividends to shareholders, smart remuneration to employees and in short, all round development of the company. Financial performance investigation is the advancement to review the value of the finance function of the company. It is
a process, synthesis and summarization of financial and functioning data embodied in the financial statements with a sight to getting an insight into the operative activities of a business company. Robert views ‘It as a technique of x-raying the financial position plus development of the company”. Analysis of financial statements provides a complete understanding of business operations and their impact on the financial wellbeing. The analysis of financial statements spotlights the important profit and loss account and balance sheet facts and connection relating to managerial performance. Corporate effectiveness, financial strengths and weaknesses and creditworthiness that would have or else been hidden more details. As both the key financial statements are interconnected, the exclusive analysis of either of them would not lead to any purpose exercise.

1.8 Financial Statements – Concepts

Financial statements containing income statements, balance sheets, and additional statements disclose the financial position of a company. These statements are arranged from the accounting records preserved by the Industry. They are nothing but the end products of the financial accounting method derivative from the safeguarding of the accounts. In another method "A financial statement is an agreed collection of data set according to rational and reliable accounting procedures". In research of these statements, normally accepted accounting principles and procedures are followed. Essentially Financial statements are provisional reports. Presented yearly and replicate a division of the life of a venture into more or less random accounting periods and more frequently a year.

Although some statement uttered in monetary values might be thought of as financial statements, the phrase has to turn out to be limited by the majority of accounting and business writers to denote the ‘balance sheet’,
profit and loss statement. The similar belief was uttered by Myer when he affirmed that “The term financial statements as used in recent business implies to the 2 statements which the accountant creates at the final period of time for a business enterprise. Those are the statement of financial position or the balance sheet and the income statement or profit and loss account”. Lawrence and Charles added 2 more, in addition, the balance sheet and income statements, one dealing with the retained earnings and another with sources and uses of venture funds. Financial statements, therefore, represent the summary of a company’s activities at the close of a certain period. The result of financial statements imitates an amalgamation of recorded facts, accounting conventions and personal judgments.

McMullen also promotes that the principle financial statements information available for the public are the balance sheet, the statement of retained earnings or owner’s equity, the income statement, and the statement of changes in financial position. Recently, reports such as sources and uses of funds, statement of retained earnings, capital surplus, funds flow, stockholder’s equity statements, cash flow statements and the similar to are treated as part of financial statements. However, the main and autonomous form of financial statements, which are fundamental to financial analysts and financial managers are the income statement and the balance sheet. These most important statements are frequently supplemented by schedules showing details of various items. They consist of such schedules as the share capital, reserves, and surplus, unsecured loans, secured loans, schedule of property, plant and equipment, schedule of inventories, schedule of investment, schedule of manufacturing expenses and the like. They as well comprise illustrative and explicit presentation of the significant determinants, photos of manufacturing process. New machines and canteens besides non-financial statistics and a superior number of parenthetical explanations and footnotes.
1.8.1 The Income Statement

It is a performance statement recording the transformation of profits and losses, income and expenses, an effect of business operations through a year. The income statement is the agenda that reflects the incomes and expenses of a business enterprise above a period of time and then gives a financial outline in lieu of the amount of profit or loss for the accounting phase. Income is the golden egg, the centre of magnetism of all those involved in the enterprise. It notifies the story of operations above the financial period just over. It is typically known as profit and loss account which illustrates the net profit or net loss consequentially from the business operations during the period of time enclosed by the statement. Foulke R.A. mentioned, “The income statement is the numerical interpretation of experience, policies, foresight, knowledge, and aggressiveness of the management of business enterprise from the point of view of income, operating profit, expense, gross profit, and net profit or loss”.

The ending net profit or net loss is the eventual gauge of the efficiency of management. The income statement is the condensed and classified record of the losses and gains causing changes in the owner’s interest in the business for a phase of time. According to Walgenbach, Dittrich and Hanson, “It’s a statement screening the results of operations for a segment which provides the incomes and expenses and presents the ensuing net income amount”. To quote Kennedy and McMullen, “It’s a statement of activity and results of that activity”. The income statement is the accountant’s main report of activity. Similarly, Howard and Upton explained the reason and effort of the profit and loss account to demonstrate in a fairly comprehensive fashion how the operations alter the ‘Net Worth’ over a specified period of time. As an interim report, it suggests a long array view of a business enterprise by portraying the way in which the business is stirring and the reasons basis it.
1.8.2 The Balance Sheet

Balance sheet is one of the main vital financial statements. It demonstrates the financial condition of a business enterprise at a definite date usually at the time when the books of accounts are clogged and balanced, usually at the last part of an accounting year. To quote Boddington, “By nature, balance sheet is an ‘inert statement’ as it illustrates the position of business at a definite moment of time”. A balance sheet is a declaration, which informs us what the business owns or what, it owes at a position of time. It likes a summary of finance of a company for that instant like a photograph.

According to Pyle, White and Larson, “A balance sheet is so called since; the total of assets revealed on the balance sheet should be equal to the liabilities plus owner’s equity”. According to Anthony, “A balance sheet illustrates the financial position of an accounting firm as on a particular instant of time”. To quote Kennedy and McMullen, “The balance sheet reflects the financial condition or status of business, as imitated in the accounting records, at one meticulous instant of time, typically the close of business on the day specified by the date of the statement”. Hastings opines, “Balance sheet reflects the property held by the business, the assets and the debts owed by the company, the liabilities”. The identical view was also uttered by Black and Hirt.

The balance sheet is as well known as a statement of the financial situation. It is a, “statement of financial position, statement of resources and liabilities, statement of assets and liabilities, statement of assets, liabilities and capital and statement of worth”. The balance sheet is, therefore, a double summation of negative values the liabilities and the positive values the assets offered in an abbreviated form. Balance sheet imitates the results of all recorded accounting transactions because the enterprise was launched (year
wise). Hence, it is the growing record. In the words of Dennis, “The simplest way to recognize the balance sheet is to indulge it as a statement of ‘sources of funds’ and a statement of ‘deployment of funds’”. The balance sheet is the back bone of dual entry system the master account of the general ledger. In other words, it is intended to illustrate the circumstance of the business in a structure effortlessly understandable and further rapidly comprehended than would be potential from a survey of the figures exposed in ledgers and records. In a nutshell, it is forever offered at an exact date highlighting the bird’s eye-view of the financial condition of a company, or it is a reflection of the financial position of a company. The balance sheet and income statements are, hence, signs of the financial position of a business concern at a certain date and its operating result during a definite period of time correspondingly.

1.8.3 Cash Flow Statement

In financial accounting, a cash flow statement, also identified as a statement of cash flows, is a financial statement that demonstrates how adjustments in balance sheet accounts and income changes cash and cash equivalents, and ruptures the analysis downwards to operating, investing and financing activities. Fundamentally, the cash flow statement is concerned with the flow of funds in and out of the business. The statement confines both the current operating results and the accompanying modifications in the balance sheet. As a diagnostic tool, the statement of cash flows is helpful in determining the temporary viability of a company, largely its capability to pay bills. International Accounting Standard 7 is the International Accounting Standard that interacts with cash flow statements.

The cash flow statement was earlier known as the flow of funds statement. The cash flow statement depicts a company's liquidity position.
The cash flow statement is a summary of a company’s financial resources and prerequisite at an exclusive point in time, and the income statement shortens a company’s financial transactions over an interval of time. These 2 financial statements imitate the accumulation basis accounting used by companies to match revenues with the expenses connected with generating those incomes. The cash flow statement contains only inflows and outflows of cash and cash equivalents; it excludes transactions that do not openly affect cash receipts and payments. These non-cash transactions comprise of reduction or write-offs on bad debts or credit losses to say a few. The cash flow statement is a cash base report on 3 types of financial activities: investing activities, operating activities, and financing activities. Non-cash activities are usually accounted in footnotes.

The cash flow statement is projected to

- offer information on a company’s liquidity and solvency and its capability to transform cash flows in potential circumstances
- offer supplementary information for evaluating changes in assets, liabilities, and equity
- advance the comparability of different companies operating performance by eradicating the effects of different accounting methods
- point out the amount, timing, and probability of potential cash flows

The cash flow statement has been approved as a standard financial statement since it eradicates allocations, which could be resulting from diverse accounting methods, such as a variety of timeframes for depreciating fixed assets.
1.8.4 The Statement of Retained Earnings

‘Retained earnings’ are the sum of all the earnings, which have been reserved by the company over the years. In another way, it shows the earnings unpaid to shareholders as dividends. The alteration in the equity accounts, among two balance dates is accounted in the statement of retained earnings. According to Walgenbach and Dittrich, “A retained earnings statement is an examination of the retained earnings account for the accounting period and is typically accessible to the others corporate financial statements”. The statement of retained earnings point outs the extent and source of changes in retained earnings due to the year’s activities. The statement of retained earnings provides the link between the income statement and the balance sheet.

1.8.5 The Statement of Changes in Financial Position

The statement of changes in financial position might just be defined as a statement highlighting the alteration in the company’s total financial resources. According to International Accounting Standards 7 a statement of alterations in a financial position indicates “a report which assessed the phase the resources were made available to maintain the activities of an enterprise and the utilization to which such resources have been laid. The announcement of changes in financial position is a sensible addition to the balance sheet and the income statement. At present, the statement of changes in financial position has to turn out to be an essential component of available corporate reports equal in status to the balance sheet and income statement. According to Mr. Granof, “The statement of changes in financial position is for the most part normally used to specify changes during the year in the company’s working capital position”. The statement of changes in financial position point
outs both the sources and uses of working capital. Hence, it reveals the sources of which funds have been acknowledged all through the year and how these funds have been used inside the enterprise.

1.8.6 Analysis and Interpretation of Data

Tables & Figures as shown in the financial statements are dump, but they may tell a vivid story of financial adventures of an enterprise if analyzed properly. To examine various financial facts of a firm, it is necessary to analyze the financial statements. The analysis is distinct from interpretation. Interpretation and analysis closely connected as interpretation is not possible lacking the analysis and lacking construal analysis is meaningless. The analysis is done by grouping the complex date found in the financial statements as current assets, current liabilities, fixed assets, long-term loans and the like. Interpretation, on the other hand, consists of explaining the significance of these facts and figures that have been analyzed. According to Kennedy and McMullen, “Analysis and interpretation of the financial statement is a presentation of information that will aid in decision making by business managers investors and creditors as well as other groups who are interested in the financial status and operating results of a business”. They further observe that the process of examining financial statements involves the comparison, collection, and study of financial and operating data and the preparation, study and interpretation of measuring devices such as ratios, trends, and percentages. In the words of Myer, “Financial statements examination is primarily a study of the relationship amongst the range of financial factors in a business, as disclosed by a solo set of statements and a study of the trends of these factors as exposed in a series of statements”.

Analysis and elucidation of financial statements are an effort to decide the significance and meaning of the financial statements so that a forecast may
be made concerning prospects for future earnings, ability to pay interest debt maturities i.e., both current and long term, and profitability of a sound dividend policy. Analysis and interpretation are, therefore, essential so that the mystery following the figures of financial statements might be removed and the real picture is brought to light for the benefit of all.

1.8.7 Techniques of Financial Analysis

The published financial statements do not always convey to the reader the real significance of operating results and financial health of the business. In order to make financial statements more meaningful, one should depend on certain techniques for analyzing the financial statements. The main objective of these techniques is to minimize or reduce the financial data and to use in a more appropriate and understandable terms.

The following are the various techniques commonly applied in analyzing financial statements to evaluate the financial soundness of a firm:

- Ratio Analysis
- Comparative Statement Analysis
- Statistical Techniques of Analysis

➢ Ratio Analysis

Ratio is a gauge or a method, providing a connection between two figures both in terms of percentages as well as a quotient. Accounting ratios are used to portray the noteworthy relationship, which exists among figures exposed on a balance sheet, in a profit and loss account, in a budgetary run system or in a few another part of accounting organization. According to Anthony, “A ratio is presently 1 number uttered in terms of another, it is found
by dividing one number the base into the other. A percentage is one kind of ratio in the basis taken as equally hundred and quotient is uttered as ‘per hundred’ of the bottom”. In the statement of Kennedy and McMullen, “The relationship of one article to one another uttered in a simple mathematical form is known as ratio” According to Livingstone and Kerrigan, “A ratio is the relation of one amount X to another amount Y, expressed as the ratio of X to Y or X: Y or as a fraction or number or a percentage”. To quote Hunt, Williams, and Donaldson, “Ratios are simply means of highlighting arithmetical terms, the relationship among the figures from financial statements”.

Ratios act as yardsticks to evaluate the financial condition and performance of a firm. Numerical relationships based on financial statements when analyzed and interpreted are called ratios. The main purpose of ratio analysis is to calculate precedent performance and to project future trends. Ratios are used for inter-company and intra-company comparison as a measure of comparative productivity. To quote Ramesh and Rao, “Ratios are useful in intra-firm analysis, where the performance of the firm is evaluated over time, or in the inter-firm analysis, where the performance of the firm is compared to that of other firms in the industry”. Through the ratio analysis, the analyst can find weakness or strength of a firm’s financial condition. In The words of Foulke, “Ratio analysis points out weakness and indicates whether the financial condition is wholly or partly good, questionable or poor”. Emphasizing the importance of ratio, he further adds that the ratio is the symptom like the blood pressure, the pulse on the temperature of an individual.
Comparative Statement Analysis

Another technique used in analyzing financial data is the comparative statement analysis. Comparative financial statements are statements of financial position of a firm so designed as to provide time perspective to the consideration of a variety of components of financial position personified in such statements. Comparative balance sheets and comparative income statements display trends; an apparent understanding of these trends based upon sound ratio studies may convey some presentiment regarding the immediate future of a particular business enterprise, provided management policies do not change radically. For this purpose, the balance sheet and profit and loss account are prepared in a comparative form, because these statements constitute the most vital statement of financial position.

Comparative financial statements may be prepared to show the followings:

- Absolute data,
- Increase or decrease in absolute data in terms of money values,
- Increase or decrease in absolute data in terms of percentages.

The advantage of comparative financial statement analysis to the analyst is that it contains not only data appearing in a single statement but also information essential for the study of financial and operating trends above a phase of years; it portrays the trends of the financial position and operating results of a company.
Statistical Techniques of Analysis

Application of statistical techniques in the financial analysis has to turn out to be a widespread event. The statistical tools normally applied are Altman Z-Score, Mean, Median, and Standard deviation, Coefficient of variance, Correlation and Analysis of Variance.

1.9 Problems of the Study

The software industry has to turn out to be a component of everyday life, be it providing solutions for business or entertainment. In the last 2 decades the software industry in India has brought a remarkable growth for the rising economy and as well the industry is the key factor of the Information technologies not only in India and other leading developing countries too. The IT sector in India has proved to be the country’s greatest growing sector, even in troubled times. The software is a service industry, the main component of IT sector in India, illustrated noteworthy drive, advanced than that of other industries in India. Also, it continued to be a compelling investment destination, as important companies either set up an office here or improved their existing infrastructure. The IT services sector has witnessed incredible growth in the last decade, fuelled by an increasing quantity of business expansions, acquisitions and green field projects funded equally with domestic and foreign private investment. Some of the services naturally rendered by the IT companies comprises of Application Management, Application Development, consulting and testing services performed either offshore or onsite. India has become one of the mainly preferential destinations for outsourcing and IT-Enabled Services.

The change in the function of Information Technology from just supporting business to transforming business, which is driving efficiency gains
and creating new business models, has enlarged the importance of Information Technology to the achievement of companies internationally. The skill to plan, build up, execute and sustain highly developed technology platforms and solutions to tackle business and customer requirements has to turn into an aggressive benefit and a priority for corporate universally. Because of the world financial and economical crisis approximately all countries economy went down in the 2007-08 and 2008-09. In India, the main sources of income are through Software Industry and its exports almost all software companies are facing financial crisis especially the top 10 software companies in India. In the year 2006-07, TCS Net profit growth ratio is 0.25 but it dropped down to 0.21 in the year 2007-08 and 0.24 in the year 2008-09. Wipro Net profit growth ratio is 0.20 but it dropped down to 0.16 in the year 2007-08 and 0.15 in the year 2008-09. The other leading companies as like Infosys, Tech Mahindra were also facing the financial crisis in the global meltdown. Hence, the study aim is to analysis the Strategic financial performance of Software Industries with reference to India, so that during crisis how the company can maintain to sustain growth instead of reduction.

1.10 Importance of the Study

Although various studies in this direction have been performed, the present one would be of superior significance to many. It would help to understand the pattern and structure of the financial variables of the selected companies. It would also enable to the shareholders, investors and investment analysts to identity the determinants of the strategic financial performance. Further, it would offer insight into banks, financial institutions, and long-term lenders to understand the financial ability and efficiency of the companies. Moreover it would open up new vistas to the Corporate Associations and the government in understanding the characteristic of the companies for inter and
intra firm comparisons. It might also help the academic researcher, a researcher in securities and company watchers by providing a different perspective of analysis. The result of the study will benefit the policy makers while framing new initiatives. This study will help companies association which can initiate some collective steps to strengthen the company during the crisis. The management of companies will also be benefited as they can understand the implications of macroeconomic policies on the functioning of the individual company and device their strategies.

1.11 Scope of the Study

The study aims to make an analysis of the strategic financial performance of top three Software Company in India. Hence, the present study is pertaining to Indian top three software companies. The study has used the financial facts of the selected companies from 2005-06 to 2014-15. The financial performance of the sample companies is strategically evaluated in terms of profitability, liquidity, financial health and value creation to its shareholders. The scope of strategic financial performance is very wide and the study is based on accounting information.

The Information Technology (IT) sector is doing remarkably well and is registering high growth rates for the past few years. The software industry, which is a part of the IT industry has been the major driver of the IT industry and has been responsible for the phenomenal growth achieved by the IT industry. The Onshore application developments are pioneering in the software industry. Maximizing shareholder value is becoming the new corporate standard in India. The corporate, who gave low preference to the shareholder curiosity, are now bestowing the extreme inclination to it. In order to help the corporate to generate value to the investors, value-based management systems have been developed. If a business enterprise is
determined to maximize the economic value of the shareholders claim to the assets, then it is quite beyond price to all those who are patronized stakeholders. Also, the study aims at maximizing the net profit of the company during a global economic crisis, in order to sustain and maintain the company’s growth and maximizing shareholders value.

1.12 Objectives of the Study

➢ **Primary objectives:**

- To analyze the Strategic financial performance of Software Industries in India

➢ **Secondary objectives:**

- To identify the financial health status of the companies
- To identify the assets and working capital turn over
- To assess the significance of capital efficiency, return on capital employed.
- To assess the revenue growth, Earnings per Share and Market Capitalization and return on capital employed.

1.13 Research Methodology

The researcher, being an exterior analyst, had to depend on mostly the secondary data for the rationale of this research named "Strategic Financial Performance of Software Industries with Reference to India" from the top ten Indian software companies, which is enlisted by NASSCOM, out of the top ten Indian software companies, the three selected Indian software companies
are Tata Consultancy Services, Wipro and Infosys Technologies Ltd has been selected for this study. Hence, the data and information necessary for this study have been collected mostly from the annual reports of the above selected Indian Software Companies for the period from 2005-2006 to 2014-2015. Though there was found unresponsive or indifference on the part of executives in supplying information, the researcher could conquer through moral persuasion and intensive pestering. It was made clear to them that the information so collected would be exclusively used for academic purposes and proper secrecy would be maintained. Editing, classification, and tabulation of the financial data collected from the above-mentioned source have been obtained. The data for the years 2005-06 to 2014-15 has been taken in order this study the strategic financial performance pattern in terms of overall growth, operating, profitability, short-term solvency, capital effectiveness, and dividend payout ratio over a period of 10 years from 2005-2006 to 2014-2015.

1.13.1 Sampling Design

The sample companies have been selected on the basis of the size of the company. Several variables can be used to compute the company’s size. A few of them are total assets, gross profit, net profit, total share capital, and net sales. Every variable cannot stand for the accurate industry dimension in segregation to other variables. That is each variable has its individual restrictions. The immense benefit of the total assets as a measure of the industry size is that this variable can signify the overall dimension of the industry compared to other variables. Moreover, figures for total assets are readily available from company’s published annual report balance sheets, which the entire firms have to publish. Based on this dimension it has been determined on the basis of the investment in total assets of these software companies, Tata Consultancy Services, Wipro, and Infosys Technologies
Limited, at the end of the financial year 2010-11. Those companies which have invested more than Rs. 5000 crores in total assets at the end of the financial year 2010-11 have been selected for the present study. In India, only five top Indian software companies have invested more than Rs. 5000 crores in total assets. The top 5 companies enlisted by NASSCOM are Tata Consultancy Services, Wipro, Infosys Technologies Ltd., Tech Mahindra and HCL Out of which 3 companies have been chosen and the remaining 2 were omitted due to the non-availability of required data relating to an entire phase of the study period.

1.13.2 Period of Study

The current study covers a period of 10 years starting from 2005-06 to 2014-15 in order to assess the strategic financial performance of selected software companies in India.

1.13.3 Sources of Data

The data used for the present study is mainly based on secondary data. The required data for the sample companies were collected from the audited annual reports, corporate database, published research reports and financial research journals of the company is for the period 2005-06 to 2014-15. It contains a highly normalized data built on a sound understanding of disclosures on where all registered public limited company compulsorily disclose the data as per SEBI guidelines in India. The audited annual report provides financial statements, ratio analysis, fund flows, products profile, returns and risk on the stock market. The annual report of the industry used by govt. authority, individual, financial journal, and NASSCOM analysis report used the annual report as a data source.
1.13.4 Framework of Analysis

To analyze the strategic financial performance of selected software companies in India, the following tools and models have been applied.

- **Statistical tools used for Analysis**
  
  The present study has analyzed the strategic financial performance of three selected software companies. In order to evaluate the strategic financial performance, tools like Altman Z-Score, Correlation Test, ANOVA, and Mean, Standard Deviation, and Ratio analysis have been used.

  - **Mean (X)**

    Mean is a central tendency to quantify the reckoning average of a set of observations. It gives a single value to describe the whole data. It has been obtained by adding the values of all observations and dividing it by the number of observations. It is calculated by the following formula:

    $$\bar{X} = \frac{1}{N} \sum x$$

    Where $\sum X = \text{Sum of variables}$
    
    $N = \text{Number of observations}$

  - **Standard Deviation**

    Standard deviation is the square root of variance; a gauge of diffusion in the same units as an original data. Higher the S.D greater is the dispersion. The formula

    $$\sigma = \sqrt{\frac{\sum X^2}{N} - \bar{X}^2}$$

    Where $\sigma = \text{Standard deviation}$
\[ \sum x^2 \] = Square of sum of variables

\[ N \] = Number of observations

\[ U^2 \] = square of mean

This is used to compare the standard deviation of various ratios.

\[ \bar{X} \] - is the mean.

In ratio examination of financial data fewer coefficient of variation signifies relatively better control of the management on the ration.

- **Median**

Median is the middle value in the stake of numbers. To compute the Median value, first the list to be arranged in the ascending order, and then the procedure is affirmed as If the total numeral numbers (n) is an odd number, then the technique is specified below:

\[
\text{Median} = \left( \frac{n + 1}{2} \right)^{\text{th}} \text{ term}
\]

If the total numeral numbers (n) is an even figure, then the method is given below:

\[
\text{Median} = \left( \frac{n}{2} \right)^{\text{th}} \text{ term} + \left( \frac{n}{2} + 1 \right)^{\text{th}} \text{ term} \right) \times \frac{1}{2}
\]

- **Coefficient of Variation**
The coefficient of variation is defined as the proportion of the standard deviation to the mean.

\[ C_v = \frac{\sigma}{\mu} \]

It demonstrates the amount of unevenness in relation to the mean of the population.

The coefficient of variation ought to be computed only for data calculated on a ratio scale, as these are the measurements that can only acquire non-negative values.

- **Correlation analysis (r)**

Correlation analysis is used to determine the degree of associate relationship between the two related variables. For finding out the correlation the following formula is used

\[ r = \frac{\sum XY}{\sqrt{\sum X^2 \times \sum Y^2}} \]

Further to test its significance the following formula is used

\[ 't' = \frac{r}{\sqrt{1-r^2} \sqrt{n-2}} \]

Where \( t \) = student ‘t’ test, \( r \) = co-efficient of correlation, \( n \) = number of observations.

When the computed ‘t’ value is in excess of the table value at 0.05 level of significance the null hypothesis of no significant correlation among variables is rejected and the alternative hypothesis of significant correlation among the
variables is accepted.

- **Analysis of Variance (ANOVA)**

The analysis of variance commonly referred as ANOVA is a statistical technique specifically intended to experiment whether the means of greater than 2 quantitative populations are equal. The analysis of variance technique, developed by R.A. Fisher in 1920’s, is competent of prolific application to a variety of practical problems. It consists of classifying and cross-classifying numerical results and testing whether the means of a particular classification fluctuate considerably. Evaluate the calculated value of F with the table value of F for the degrees of freedom at a definite critical level. If the calculated value of F is superior to the table value, it is concluded that the difference in sample means is considerable. On the other hand, the difference is insignificant.

The specimen of ANOVA table is given below:

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Sum of squares</th>
<th>Degrees of freedom (v)</th>
<th>Mean square</th>
<th>Variance ratio of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between samples</td>
<td>SSC</td>
<td>( V_1 = c-1 )</td>
<td>MSC = SSC/(c-1)</td>
<td></td>
</tr>
<tr>
<td>Within samples</td>
<td>SSE</td>
<td>( V_2 = n-c )</td>
<td>MSE=SSE/(n-c)</td>
<td>MSC/MSE</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>SST</strong></td>
<td><strong>n-1</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where,

SST = Total sum of squares of variations

SSC = Sum of squares between samples (Columns)

SSE = Sum of squares within samples (Rows)
MSC = Mean sum of squares between samples
MSE = Mean sum of squares within samples

- **Ratio Analysis**

Ratio Analysis is one of the methods of financial analysis where ratios are used as a yardstick for assessing the financial circumstance and act of a company. Analysis and interpretation of a variety of accounting ratios provide an expert and knowledgeable analyst a superior understanding of the financial circumstance and performance of the industry that what he could have attained only through an examination of financial statements. Ratio analysis is observed as one of the best tools of examination and comparing the time series accounting data of diverse companies. Hence, it has been broadly used in the current study. Different ratios are calculated in order to examine the liquidity, profitability, short-term and long-term financial strength and its different components have been used. Though, in this study, the exploit of ratios has been made in the course of examination directly. To make the analysis and interpretations further accurate and precise the value of C.V. has been calculated from the ratios.

- **Altman Z-Score**

Altman’s Z-score Analysis is to evaluate the financial health of an enterprise over a period. Many of the accounting ratios employed frequently to envisage the financial performance of an enterprise might only provide warnings when it is too late to take a corrective action. In addition, the single ratio does not communicate much of the sense. There are no internationally accepted standards for financial ratios against which the results can be compared. Determining Z-Score will evaluate the company’s financial health and capability to improve its operational efficiency and effectiveness.
The formula used to assess the Z-score analysis as established by Altman is

\[ Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5 \]

Where \( Z \) is the overall index

X1-Ratio of Working Capital to Total Assets (WC to TA)

X2-Ratio of Retained Earnings to Total Assets (RE to TA)

X3-Ratios of Earnings before Interest and Tax to Total Assets (EBIT/TA)

X4-Ratio of Book Value of Equity to Book Value of Debt (BVE/BVD)

X5-Ratio of Net Sales to Total Assets (NS/TA)

The following accounting ratios are used as variable to combine them into a single measure (index) which is efficient in predicting bankruptcy.

X1-The Ratio of working capital to total assets. It is the measure of a net liquid asset of the firm to total capitalization.

X2- The ratio of Retained earnings to total assets. It indicates cumulative profitability overtime and leverages.

X3- The ratios of earnings before interest and tax to total assets. It is the measure of productivity of assets employed in an enterprise ultimate existence of an enterprise is based on the earning power.

X4-The ratio of book value of equity to book value of debt. It is reciprocal of the familiar debt-equity ratio. This measure shows how much assets of an enterprise could turn down in value before the liabilities exceed the assets and the concern becomes insolvent.
X5 - The ratio of net sales to total assets. It measures the capital turnover ratios which are the standard financial measure for exemplifying the sales generating capacity of the assets.

1.14 Limitations of the Study

The following study is subject to the below limitations:

1. The study is restricted to the period of 10 years from 2005-06 to 2014-15 only.

2. This study is based on secondary data taken from annual reports as such its findings depend entirely on the accuracy of such data.

3. The present study is limited to software industry with reference to India.

4. The present study is largely based on comparative balance sheet and ratio analysis which has its own limitations.

5. There are different methods to measure the strategic financial performance of an industry. In this connection views of experts differ from one to other.

6. This study has focused only on top three selected software companies in India (i.e. TCS, Wipro, and Infosys) as NASSCOM rated during the study period 2005-06. So, it implies that the conclusion drawn from present study could not be generalized to the small and medium size of software companies in India.
1.15 Chapterisation

Chapter 1 - Introduction, Problems of the study, Importance of the study, Scope of the study, Objectives of the study, Research Methodology, Chapterisation, and Conclusion.

Chapter 2 - Review of literature.

Chapter 3 - Profile of software companies.

Chapter 4 - Conceptual framework of strategic financial performance.

Chapter 5 – Data analysis

Chapter 6 - Summary of findings and suggestions

Chapter 7 - Conclusion

1.16 Conclusion

Financial statements of a firm are highly useful to all stakeholders. The profit and loss account and balance sheets are the two most important financial statements. They are prepared according to commonly accepted principles, reflecting the past and current effects of the decisions made by the management. Evaluation of strategic financial performance involves the use of financial statements, figures are dumb, however, they may tell a vivid story of financial adventures of a business enterprise if systematically investigated and interpreted. Strategic financial performance evaluation identifies the financial health, strengths and weakness of a firm.