Chapter I

Introduction
CHAPTER - I

INTRODUCTION

Digital technology has revolutionized the world as never before. The global scenario has undergone phenomenal transformation thanks to this revolution. India is no exception and has witnessed an unprecedented growth in the field of Information Technology (I.T.). This sector has emerged as one of the largest employers in our country. It is to be noted that this sector has not only created plentiful job opportunities, but has also brought about challenging careers. As this sector gives more emphasis to knowledge in particular and it is non-discriminating in nature, it provides immense opportunities even for the educated middle class women to build their own dreams and excel in fields, which were earlier perceived to be male domains.

Presence of women across the sector is slowly becoming visible. But their strength in I.T. sector is noteworthy in that they constitute around 50 per cent of total workforce. Therefore women in the I.T. sector are harbinger of change in the gender profile of other sectors. There are many contributory factors for the growing presence of women in various spheres of economy.

The increasing number of women literates clamoring for greater freedom impel women to go either for jobs or for pursuing independent ventures. The mushrooming numbers of technical education institutes offering computer related courses have a penchant for doing technical course among the women. The need to climb up the economic ladder fast. The need to be recognized as an entity, finding an outlet to release their innate potential, etc.
make women seek gainful employment in job market. Today, approximately half of employees in the Indian software companies are women. In fact, NASSCOM puts the figure at 38 per cent, which is higher than their Western counterparts. One such reason for this attraction to the IT sector is India's education system.

**Career Women – An overview**

Women for ages have been subjugated and subordinated in Indian societies. Women were made to believe that they have taken birth to do all household chores and men are made to earn for the family. The different religions like Hinduism, Islamism, Jainism and so on proscribe women’s freedom to undertake any job of women’s choice. Therefore women were kept outside the purview of job market. The spread of literacy among women folk has revolutionized their thinking processes, and unmindful of constraints so assiduously upheld for thousands of years, they feel free now to take up a career of their choice to work in a place they relish.

The literate women do not like to confine themselves to the houses. They tend to make use of their dormant potential for the pursuit of job or gainful profession. The soaring cost of living forces women, both literate and illiterate, to engage themselves in some job or other.

In the aftermath of independence of our country, job opportunities became available aplenty. The doors were open for both the genders. As a consequence womenfolk started taking up jobs in banking, insurance, teaching, nursing and medical professions.
The liberal loan assistance granted by many banks after nationalization of banks enabled the womenfolk to pursue micro ventures in rural areas. The wide-spread higher education especially after privatization of education sector in our country has transformed the employment scenario in India. The longing for technical education has resulted in a large number of technically educated women.

The existence of women quota in Government jobs attracted more women to qualify themselves for various jobs in Government enterprises. The opportunity to pursue computer education after the advent of the I.T. revolution is catalyst in the development of technically literate women folk. The awareness of the rights created by women organizations, media, NGOs, Government, etc. discouraged women from being mere house makers.

The fast spread of nuclear family concept and the consequent necessity to supplement the income of the family to meet the rising cost of living transformed the attitude of the society towards the women gender. The success of women CEOs, women administrators, women entrepreneurs, etc. has kindled their spirit to break the shackles of enslavement.

In the Indian context, civil engineering and mechanical engineering were considered male domains as the outdoor activities were considered unsuitable for the Indian middle class girls. They went for “softer skill” courses such as Electronics and Communication Engineering and Computer Science in technical education sector and therefore more number of women have graduated in these particular disciplines.
A sizeable number of women pursue computer courses in Arts and Science colleges and join the workforce in I.T. sector. Besides tremendous growth of financial service sector has thrown open the door to educated women folk. The success of self-help group concept has made many semi-educated and uneducated women on rural spectrum to become micro entrepreneurs. Job reservation for women folk in various sectors of the economy like education, healthcare, banking etc. impels many educated women to seek jobs in these sectors. Increasing awareness of women of their rights generated by media, NGOs and women organisation inspire women gender to come out of their shell to pursue some gainful career both in organized and unorganized sectors. All these positive developments have contributed to burgeoning presence of women in various careers. It is the I.T. sector in relation to other sectors where women employees contribute around 50 per cent of work force.

Since the demand for technical professionals continues to be strong in the IT industry, women are not seen as competitors to men as skill and experience are what really matter. Their visibility is not restricted to just India as several of them shedding their age old shell show no hesitation in working abroad. Affordability, Reach, Current Technology, Academic support, Human Resource training, Employment opportunity, Global Connectivity, etc. in Information and Communication Technology (ICT) segment have been rapidly transforming Indian economy and its citizen’s way of life. This literacy drive coupled with ICT access has made Indian women attain certain degree of cultural and economic independence to take their own decisions.
The increasing presence of women in organisational hierarchy has potential to break down the communal hierarchies in the society. It leaves its shadow on upgrading one’s life style. The close interaction between the male and female folk in the workplaces widens and deepens the thinking process of women employees. In the same vein the male counterpart is able to comprehend the value of womenfolk in the society. In this backdrop, an attempt is made to explore the plight of women in I.T. sector which accommodates more number of women employees in the organized sector of the country.

**Information Technology Industry**

The Information Technology industry has become one of the most significant growth catalysts for the Indian economy. In addition to fuelling India’s economy, this industry is also positively influencing the lives of its people through an active direct and indirect contribution to various socio-economic parameters such as employment, standard of living, education and diversity among others. Growing at an extremely high pace, the industry has demonstrated a decade of strong growth – growing 15 times to aggregate revenues of USD 69.4 billion in 2009-2010.

In addition, as one of the largest employers in the organised private sector, it provides direct livelihood to 2.2 million people. The IT-BPO industry has played a significant role in heightening India’s image from one of sleeping giant to that of a roaring lion. It has made India a global player in providing world class technology solutions and business services. The industry has
helped India transform from a rural and agriculture based economy to a knowledge based economy.

The Indian Information Technology (I.T.) industry has played a major role in placing India on the international map. This sector is amongst the fastest growing in the country. In terms of revenue, it grew from 150 million US Dollars in 1990-91 to a whopping $69.4 billion in 2008-09. The industry is further expected to garner a revenue aggregate of 73.1 billion US Dollars in 2009-10. According to NASSCOM, the share of I.T. Industry in GDP increased from 1.2 per cent 1997-98 to 5.5 per cent of GDP in the financial year (FY) 2008-09. Indian I.T. industry has built up valuable brand equity for itself in the global markets. The I.T. industry in India comprises Software Industry, Information Technology Enabled Services (ITES), and Business Process Outsourcing (BPO) industry. The total IT Software and Services employment has touched 2.20 million in 2008-09 as compared to 0.52 million in 2001-02.

This represents a net addition of 1.68 million to the industry employee base since 2001-02. The indirect employment attributed by the sector is estimated at 8.0 million in 2008-09. In short it has created about 10.20 million job opportunities. The I.T. industry in India has today become a growth engine for the economy, contributing substantially to increase the GDP, urban employment and exports and to achieve the vision of a "young and resilient" India. Women employees in I.T. Industry play a vital role in the employment scenario of India.
IT sector in India aggregated revenues of USD 88.1 billion in FY2011, generating direct employment for over 2.5 million people, as the industry continued its journey on the core themes identified for the next decade – Diversification, Transformation, Innovation and Inclusion. The industry focused on emerging verticals, markets and customer segments, driving innovation-led transformation in client organisations and transforming its internal operations. The domestic IT market witnessed the Indian consumers going up the IT maturity curve, return of economic growth, efforts by organisations and the government to increase technology adoption, and emergence of new delivery platforms thus driving growth.

**Importance of Information Technology in Modern Commercial Scenario**

It is an accepted fact that the most important scientific and technological development of contemporary history is Information Technology (IT). ICT has pervaded all walks of modern life and society so profoundly that the modern society is colloquially known as Information Society. It has revolutionized the development process itself by influencing its manifold dimensions, be it economic, social, political, cultural, environmental, ethical, behavioural, etc. The contribution of IT to Gross Domestic Product (GDP), employment generation, market diversification, operation of free markets, foreign exchange earnings, poverty reduction, environmental development, economic globalization and liberalization, women’s empowerment and gender equity evidences the extent of influences of this sector in different spheres. It fosters socio-cultural development and the concept of global village and borderless society by enhancing the promotion of social cohesion, harmony and
integration, spread of education and knowledge through distance learning in a cost effective manner.

Impact on India's Growth

IT sector has become one of the most significant growth catalysts for the Indian economy. In addition to fuelling India's economy, this industry is also positively influencing the lives of its people through an active direct and indirect contribution to the various socio-economic parameters such as employment, standard of living and diversity among others. The industry has played a significant role in transforming India's image from a slow moving bureaucratic economy to a land of innovative entrepreneurs and a global player in providing world class technology solutions and business services. The industry has helped India transform from a rural and agriculture-based economy to a knowledge based economy.

The fallout of I.T. sector on India's growth story has been shown up in chart 1.2.1. It is evident from the chart that I.T. sector has contributed to bridging the technological divide in no small measure by e-governance solutions and Corporate Social Responsibilities (CSR) activities. It has triggered phenomenal increase in number of patents filed by triggering a higher spend by the corporates on R&D segment in I.T. sector. It has generated employment opportunities tremendously in Tier II and Tier III cities.

Women account for 31 per cent in human resources placed in Tier II and Tier III cities thereby bridging disparity in regional development. Besides this sector is juvenile in the sense that 74 per cent of human resources employed are those below 30 years of age. Thus, this sector is reaping the demographic
dividend on a massive scale. On sociological front, this sector has led to increasing empowerment of human resources by giving enormous autonomy to youngsters to give vent to their creative urge. This economic empowerment of youngsters in this space has wider ramifications in other sectors of the economy. In other words, this sector is driving growth in other sectors like education, real estate, health care, export, transport, communication, etc.

The increasing interaction between the gender has been slowly slashing down caste, communal, religious, racial and ethnic barriers. Techies’ exposure to diverse cultures, inter-regional and continental mobility have been shaping up their broader outlook. The role of I.T. sector in the Indian economic scenario is undoubtedly immense. Its spectacular contribution to GDP export sector, infrastructure development, employment generation, free flow of FDI and tremendous growth in foreign exchange reserve is indeed tremendous.
Chart 1.2.1 Impact of I.T. Industry on India’s Growth

IT-BPO Sector in India

- Socially responsible & inclusive
- Contributing to India's economy
- Driving Balanced Regional Development
- Empowering the diverse human assets
- Putting India on the Global map

- 30x increase in patents filed in last 5 years
- Growing R&D spend

- 58 per cent of workforce from Tier VIII cities
- 31 per cent are women
- 74 per cent are below 32 years
- 5 per cent from economically backward classes

- 6.4 of India's GDP
- 14% of total exports
- 10% of India’s service sector revenues

- Contributing to state GDP
- Enhancing education system
- Employment generation
- Infrastructure creation

- Presence in 52 countries, with over 500 global delivery
- 60,000+ foreign nationals employed
- 200+ cross border acquisitions
- 750+ captives

Source: NASSCOM
Role of Human Resources in Information Technology Sector in India

IT sector is attracting considerable interest not only as a vast market but also as potential production base by international companies. Therefore India is considered a pioneer in software development and a favorite destination for IT-enabled services. The rapid growth in the sector is a consequence of access to trained English speaking professionals, cost competitiveness and quality telecommunications infrastructure. Companies operating from India are able to leverage the advantage of the Indian time zone to offer 24 x 7 services to their global customers. Several world leaders including General Electric, British Airways, American Express, and Citibank have outsourced call centre operations in India.

Among the factors hindering female folk in upward mobility in the career ladder in I.T. Industry, many research studies surfaced the inability to balance work life as a predominant factor. Therefore work life issues have been addressed in the present study.

Work Life Balance

Work Life Balance represents a state of equilibrium in which the demands of both a person’s job and personal life are equal.

Work Life Balance from the employees’ point of view means the dilemma of managing work obligations and personal/family responsibilities. WLB from the employers’ point of view connotes the challenge of creating a supportive company culture where employees can focus on their jobs while fulfilling their domestic obligations.
Reason for Work Life Imbalance among IT employees

IT sector is unique in its operational methodology while comparing to manufacturing sector, where knowledge based activities are centrifugal for the business operations. (Sekaran U 1992) The individual employees’ knowledge and skill are the strongest investment for the successful operations of the organisations in this sector. The employees are expected to work for long working hours and to be flexible in their attitude towards work and work environment. It is being recognized as highly paying sector which attracts both male and female through attractive pay packages and demanding profound contribution at work places. Available literature and research studies have identified the factors like long working hours, mental strain arising from additional responsibilities on home front besides the professional obligations, the need to relocate on official assignments, the obligations springing from one’s marriage, child care, elder care, pressure to hit target in shorter time frame, foreign assignments, working in shift system, the difficulty involved in availing leave facility, lack of support system, etc. as ones accentuating work life conflict.

Impact of Work Life Disharmony

The shadow of work life imbalance is reflected in lack of achievement motivation, poor productivity, more lapses, increasing absenteeism, attrition, health deterioration, lack of care towards the wards, disturbance in the relationship with family members, mental stress and misunderstanding with the spouse according to Upadhya (2006). Therefore addressing the issue of work life conflict is the need of the hour.
Work Life Balance Scenario in IT sector

The challenge of matching work and home life is formidable among the women folk in I.T. sector. Though work life disharmony is impacting the employees irrespective of gender, inability of womenfolk in I.T. sector to shed their conventional and tradition bound domestic obligation harm in no small measure their career growth. In other words, the larger proportion of women employees in entry level jobs is not reflected in middle and higher end jobs probably due to drivers like marriage, baby care, child care, elder care, need to relocate to different places on transfer and deputation, deteriorating health due to constant pressure to meet the dead lines, inability to avail eligible leaves, long travel, etc. Though the female employees are on a par with male counterparts, tradition-bound duties warranting their inevitable presence on home front hamper their career progression in I.T. sector.

Problems of the Women Employees in I.T. sector

Many problems peculiar to women employees have been well researched by earlier researchers in various contexts across the sectors in India and abroad. However, problems of women employees in Asian countries are quite different from those of their Western counterpart in the sense that the former cannot shed together their conventional role of homemaker while discharging their professional duties. This poses a serious challenge to women in Asia. In other words, the additional burden resulting from the need to shoulder household responsibilities multiply the various other problems of women employees. Women in Western countries by virtue of the culture, educational background, social environment, family set up, network of
relationship with extended families and relatives, etc. inborn traits, values, etc. are on a different plane. All these differences get reflected in their career. The various pieces of literature pertaining to problems and challenges confronting women employees across the sector have unearthed a number of factors retarding their career growth. In this background, an attempt is made to investigate how far the various problems unearthed by earlier researchers are relevant to women employees in I.T. sector in particular.

There are certain problems unique to employees of I.T. sector in general in terms of the very nature of the industry. The need to work at odd hours to suit the various time zone, pressure to hit the target in the time stipulated and the consequent penalty in the event of failure to adhere to deadlines, relocation to different places in the country and abroad on work assignment, constant exposure to radiation from systems, inability to avail leave facility thanks to hectic work schedule, compulsive need to mingle with opposite gender and the consequent intimacy leading to inter caste, religious and racial marriage, social ostracism, live- in relationship, economic empowerment at young age, party culture, increasing incidence of divorce thanks to lack of understanding between the spouse, change in food habits when working in foreign locations, sedentary work style, etc. are some of the problems specific to I.T. work force.

Literature study relating to I.T. sector employees has confirmed these problems. In this context, the problems encountered by women employees in I.T. sector have been grouped under three heads namely career advancement problems, problems unique to women and socio-cultural problems. The career advancement problems like fear of relocation due to promotion which disturb
the family life, inability to compromise the family responsibility, inadequate soft skill, fear of challenges to be faced in higher position, etc. have been included in this head. These problems have been adequately researched by the earlier researchers in the I.T. industry.

Problems peculiar to women have been chosen on the basis of the literature survey. These problems include priority to family commitments, chances of exploitation due to their submissive nature, fear of workplace harassment, gender bias, gender discrimination in work allotment, frequent changes in the work schedule, difficulty to adjust with global culture, etc.

Problems like empowerment due to economic independence, party culture, global culture, hasty decisions at younger age, over spending, inter-caste or inter-religious marriages and the related issues are some of the socio-cultural problems being encountered by the women employees in I.T. sector.

Statement of the Problem

The distinctive nature of Indian career women is that they do not like to abandon their conventional role of home maker while taking any job. In the context of epoch making changes that the Indian Information Technology sector is witnessing and the womenfolk accounting for around half of work force in this sector, an in-depth analytical study of women employees in Information Technology sector assumes singular significance. Further women are said to blend judiciously the traditional love for home and dedication for the work entrusted. They possess certain inborn qualities like patience, tolerance, affability, courtesy, etc. and qualities required for doing any job sincerely and methodically. These should enable them to handle with success
even challenging situations and go up on the hierarchy in the Information Technology Industry. But emerging statistics prove that only a small proportion of women hold high end jobs. The various factors like marriage, maternity, elder care, child care, lack of support system in home, need to go to foreign countries on project assignment, inability to get transfer to join the spouse, etc. are said to hinder women in I.T. Sector from assuming leadership position or from continuing their professional journey.

In these days when wave of social change is obliterating gender boundaries, how women employees perform in the contemporary work environment in I.T. sector; what factors dampen their spirit to become what they are capable of becoming; whether they are able to balance work life responsibility are some of the problems thirsting for solution. The present study is undertaken to probe into these aspects.

**Significance of the study**

The present study is aimed at helping the high level authorities to frame a suitable policy for recruitment of women employees on a large scale if the findings confirm that their innate traits influence significantly their performance efficiency. Further the identified areas of their strengths and weaknesses point to the need for formulation of a strategy for promotion and to the imperative of imparting training, facilitating knowledge updation and devising effective motivation for not only stepping up their present level of efficiency but also for enabling their upward movement in their career. This would go a long way in empowerment of women. This study is also expected to focus on problems confronting women employees and the management at
the higher echelons can initiate steps to mitigate them so that they may function in a congenial workplace atmosphere with unflinching dedication for which Indian womanhood is extolled from time immemorial.

**Objectives of the study**

1. To investigate the relationship between personal variables and job performance of women employees.

2. To examine whether women employees are able to strike a balance between personal life and official life.

3. To study the problems hindering the career growth of women employees in the Information Technology Industry.

4. To make suggestions for ensuring more effective functioning of women employees in Information Technology Industry.

**Scope of the study**

The present study has attempted to identify the challenges that women face in their role and the effectiveness of the coping mechanism applied to strike a balance between their personal life and work life in Information Technology Industry. It also analyses the challenges faced by them. This study will help in strengthening their role by gradually changing wherever required both from the employer and employee side.

**Hypotheses**

- There is no significant relationship on the perceptions of respondents on personality traits across the cadre.
➢ There is no significant relationship on the perceptions of respondents on benefits offered across the cadre.

➢ There is no significant relationship on the perceptions of respondents on organisational policies across the cadre.

➢ There is no significant relationship between personal variables and work life balance dimensions of women employees in Information Technology Industry.

➢ There is no significant relationship between personal variables and job performance of women employees in Information Technology Industry.

➢ There is no significant relationship on the perceptions of respondents on career advancement problems across the cadre.

➢ There is no significant relationship on the perceptions of respondents on problems peculiar to womenfolk across the cadre.

➢ There is no significant relationship on the perceptions of respondents on socio-cultural problems across the cadre.

➢ There is no association between perceptions of work life balance and job performance of women employees in Information Technology Industry.

➢ There is no association between various problems and job performance of women employees in Information Technology Industry.

**Sampling Design**

The present study is confined to women employees of Information Technology Industry. Multi stage random sampling was adopted for the present
study. As the study is confined to Chennai city, the study is area specific. In the first phase all the 13 companies listed in the BSEIT Index were selected for the study. In the second stage 7 companies like HCL Technologies Ltd., Infosys Technologies Ltd., Mphasis Ltd., Patni Computers Ltd., Rolta India Ltd., TCS Ltd., and Wipro Ltd. with a life span of more than 10 years and having branches in Chennai were selected. In the final stage women employees alone were chosen from each company. The sample size of the present study has been fixed at 517 women employees by applying sampling formula given below.

\[ n = \left[ \frac{ZS}{E} \right]^2 \]

Z = Standardized value corresponding to a confidence level of 95% = 1.96
S = Sample SD from Pilot study of 50 sample = 0.58
E = Acceptable Error = 5% = 0.05

Hence, Sample size = \( n = \left( \frac{ZS}{E} \right)^2 \)

\[ = \left( \frac{1.96 \times 0.58}{0.05} \right)^2 \]

\[ = 516.9257 \]

\[ = 517 \]

Table No. 1.1.1

Sample Framework

<table>
<thead>
<tr>
<th>1(^{st}) Stage</th>
<th>2(^{nd}) Stage</th>
<th>3(^{rd}) Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSEIT INDEX - 13 Companies</td>
<td>with a life span of more than 10 years - 7 companies having branches in Chennai</td>
<td>517 women employees</td>
</tr>
</tbody>
</table>
Period of the study

The period of the study was 2004-2009 and the reference period i.e. period of data collection was 2009-2010.

Collection of the Data

The present study is empirical in character based on survey method. The first hand information for this study was collected from the women employees of Information Technology Industry in Chennai. The interview schedule was prepared after a deep review of relevant literature pertaining to women employees in I.T. Industry. The instrument was pilot studied and the alterations were made according to the results of the pilot study.

Pilot Test

A pilot study was conducted to validate the questionnaire and to confirm the feasibility of the study (Rosenthal and Rosnow 1991). Based on the pilot study the questionnaire was modified to bring out suitable responses from the sample members (Churchill Jr. 1987). Cronbach alpha was applied to test the reliability. Samples of 50 respondents were taken from the instrument and their alpha score was calculated. Cronbach’s alpha score above 0.8 is reliable (Nunnally and Bernstein 1994)\(^6\), (Crook and Booth 1993). The result of the test is shown here under.
### Table 1.1.2

**Cronbach Alpha Table**

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of items</th>
<th>No. of sample</th>
<th>Cronbach alpha score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Life Balance Dimensions</td>
<td>28</td>
<td>50</td>
<td>0.8849</td>
</tr>
<tr>
<td>Work Performance</td>
<td>11</td>
<td>50</td>
<td>0.8661</td>
</tr>
<tr>
<td>Problems Dimensions</td>
<td>23</td>
<td>50</td>
<td>0.8314</td>
</tr>
</tbody>
</table>

Source: Primary Data

Reliability analysis table shows that all the dimensions have more than 0.8 as alpha score and therefore they are reliable. The variables considered for the analysis satisfy the normal probability distribution.
### Table 1.1.3

**Framework of the Analysis**

<table>
<thead>
<tr>
<th>Nature of Analysis</th>
<th>Tools Applied</th>
<th>Variables</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Descriptive Analysis</td>
<td>Frequency</td>
<td>• Personal Variables</td>
<td>✓ To discuss the nature of the data and to examine the perception of the respondents across the levels on work life balance and problems encountered.</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>• Perception Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Inferential Analysis</td>
<td>Kruskal Wallis Test</td>
<td>• Perception Analysis</td>
<td>✓ To analyse whether the perception of the subjects vary across the levels.</td>
</tr>
<tr>
<td></td>
<td>Chi-Square Test</td>
<td>• Personal Variables and Dimensions of Work Life Balance and problems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Friedman Test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rank Correlation</td>
<td></td>
<td>✓ To find out whether the ranking pattern across the levels are similar or not.</td>
</tr>
</tbody>
</table>
Framework of Analysis

The data collected are classified in tabular form and analysed. Likert's five-point scale has been used to measure the perception of the women employees in Information Technology Industry. To interpret the findings the following statistical tools were applied:

(i) Percentage Analysis
(ii) Kruskal Wallis test
(iii) Chi-square test
(iv) Correlation Test
(v) Multiple Regression
(vi) Friedman test

(i) Percentage Analysis

Percentage analysis is one of the statistical measures used to describe the characteristics of the sample or population in totality. Percentage analysis involves computing measures of variables selected of the study and its finding will give easy interpretation for the reader.

(ii) Kruskal Wallis Test

Kruskal–Wallis one-way analysis of variance by ranks named after William Kruskal and W. Allen Wallis is a non-parametric method for testing whether samples originate from the same distribution. It is used for comparing more than two samples that are independent, or not related. The parametric equivalence of the Kruskal-Wallis test is the one-way analysis of variance (ANOVA). The factual null hypothesis is that the populations from
which the samples originate have the same median. When the Kruskal-Wallis test leads to significant results, then at least one of the samples is different from the other samples. The test does not identify where the differences occur or how many differences actually occur. Since it is a non-parametric method, the Kruskal–Wallis test does not assume a normal population, unlike the analogous one-way analysis of variance.

(iii) **Chi-square Test**

Chi square is a non-parametric test of statistical significance for bivariate tabular analysis (also known as cross breaks). Any appropriately performed test of statistical significance lets one know the degree of confidence you can have in accepting or rejecting a hypothesis. Chi square is used most frequently to test the statistical significance of results reported in bivariate tables, and interpreting bivariate tables is integral to interpreting the results of a chi square test. This test has been used massively in the present studies.

(iv) **Correlation Test**

Correlation Test is a statistical tool used to measure the extent of relationship between the variables under consideration. The relation between the variables can be verified and tested for significance. This analysis is applied to know how the change in the value of one variable produces a change in the value of the other variable.
(v) **Multiple Regression Test**

Multiple regression is a flexible method of data analysis that may be appropriate whenever a quantitative variable (the dependent or criterion variable) is to be examined in relationship to any other factor (expressed as independent or predictor variables). Relationships may be nonlinear, independent variables may be quantitative or qualitative, and one can examine the effects of a single variable or multiple variables with or without the effects of other variables taken into account (Cohen, Cohen, West, & Aiken, 2003). The relationship between the Nifty index and selected macro economic factors has been analysed through this test.

(vi) **Friedman test**

Friedman test is applied when the data are ranked. The observation of each independent block is ranked which has no interaction between their treatments. The perceptions of respondents to macro economic factors in their investment decisions are ranked independently. Friedman test is applied to test whether the distribution of the treatment of populations is identical. The formula for calculation is:

\[
x^2_f = \frac{12}{bk(k+1)} \sum_{j=1}^{k} R_j^2 - 3b(k+1)
\]
Limitations of the study

1. Women employees from select firms of Information Technology Industry in Chennai city alone have been studied. Perception of such employees elsewhere is likely to vary.

2. The study is purely based on primary data exploring the perception of the respondents. The perceptions may vary over a period of time due to the environmental dynamics. Therefore the findings of the study may not hold good for ever.

3. The results of the study may not apply to women employees engaged in other industries in our country or in other countries.

Chapter Scheme

Chapter I - Introduction

The first chapter gives an introduction to the present study. It gives a rationale of study from the point of view of women employees. It also explains the objectives, hypotheses and limitations of the study. It describes the method of data collection and sampling and statistical techniques used for their interpretation.

Chapter II - Review of Literature

This chapter deals with the earlier studies relevant to performance of women employees across the various sectors in India and abroad in order to identify the research gap left by earlier researchers.
Chapter III – Analysis of Women employees in Information Technology Sector and Work Life Balance

The third chapter analyses the role of personal variables of women employees and examines the varied dimensions of work life balance and its relation to work performance in Information Technology Industry in particular.

Chapter IV – Analysis of problems faced by women employees in Information Technology Sector

The fourth chapter examines the problems and challenges faced by women employees across the cadre and in relation to personal variables in Information Technology Industry in Chennai city.

Chapter V – Findings, Suggestion and Conclusion

This chapter gives a summary of the findings of the present study. Suggestions in the light of the findings of the study and a conclusion are also included in this chapter.
List of Abbreviations and Operational Definitions:

Some of the important abbreviations used in this dissertation and operational definitions are given below:

a. Abbreviations

ANOVA - Analysis of Variance
BSE - Bombay Stock Exchange
CSR - Corporate Social Responsibility
D.F. - Degrees of Freedom
H.R. - Human Resource
I.C.T. - Information and Communication Technology
I.T. - Information Technology
K.W. - Kruskal Wallis Test
NASSCOM - National Association of Software and Services Companies
S.D. - Standard Deviation
Sig. - Significant
W.L.B. - Work Life Balance
QWL - Quality of Work Life
b. Operational Definitions

Work Life Balance

Work-life balance is about effectively managing the juggling act between the paid work and the other important activities like spending time with family, taking part in sport and recreation, activities volunteering or undertaking any other work.

Personal Qualities

Traits relevant to women employees like punctuality, sound judgment, systematic work, courtesy towards members, emotional stability, handling challenging situations, and time consciousness.

Benefit Scheme Offered by the Employer

The term connotes transport facilities, holiday home, promotion polices, crèche, fringe benefits, medical reimbursement facilities and canteen facilities.

Organisational Policies

The term refers to organizational policies pertaining to leave facilities like sabbatical leave, casual leave, medical leave and maternity leave, special concern during pregnancy, flexi timings, counselling services, health programmes, get togethers, gender neutered performance appraisal and selection for onsite project facilities.

Career Advancement Problems

Problems impeding the growth of the employees in their career like separation from family, physical and mental stress and strain, fear of challenges, shouldering higher responsibility, lack of communication skills,
relocation problems, inadequate promotional opportunities, lack of recognition, challenges emanating from married life, child care and elder care, etc.

**Problems peculiar to women**

These problems staring exclusively at womenfolk in specific like thought of attending children, submissive nature, work place harassment, sexual harassment, overburden and mental stress, gender discrimination, cooking chores, inability to work in night shifts, housekeeping responsibilities, child care and deterioration of health.

**Socio Cultural Problems**

Problems resulting from non-acceptance by the society of certain behavioural aberrations like inter caste/inter religious marriages, economic empowerment of women and high divorce rate, party culture, dressing culture, leadership competency etc.,

**Entry Level**

This cadres include those with the designations like Team Member and Software Engineer.

**Middle Level**

Those classified as middle level encompasses Team Leaders and Project Managers.

**Higher Level**

Higher Level employees have the designations like Project Leaders and Delivery Managers.