REVIEW OF LITERATURE & RESEARCH METHODOLOGY

2.1 INTRODUCTION

The way of research can be decided by studying the research material or literature. One acquires important guidance as to which projects to include in the research and what types of variables to apply while undertaking research. Further, knowledge can be achieved by looking at the studies undertaken earlier. As per scientific rule, a research is undertaken to gain more novel information than principles achieved by earlier researcher or to review such principles. It is essential to look at earlier studies to identify the ignored variables and to avoid the repetitions. The aim of the present chapter is to observe the studies undertaken in the past about the work-life balance and job stress and their effects across various professions and demographics. In this regard several important studies have been mentioned in this chapter.

2.2 LITERATURE REVIEW ON WORK-LIFE BALANCE

Work and life are two independent domains in the view of organizations in earlier years. Employees were expected to place the organizations’ interests ahead of their own. Organizations react in past years as, “what happens to you outside the office is your own business; what you do in the office is our business”. With changing time, attitudes have been changed. Organizations and administrators today have come to know the impact of work-life balance on personal life and work life. Recent years have seen a growing number of organizations operate under the assumption that personal life and work life are complementary to each other and not competing priorities. It helps employees balance their work lives with their personal life and leads to positive outcomes for the employee and the organization. Therefore, a growing number of organizations have begun to adopt “work-life (family) programs” or “family-friendly practices”. In this section, earlier studies related and relevant to work-life balance have been observed, cited and analyzed. The reviews for the present study have been covered from the cited published journals, periodicals and previous research reports.
History of work/life programs can be traced back to 1930s, when introduction of reduced working hours with four shifts of six-hours instead of the usual three daily eight hours shifts in W.K. Kellog Company resulted into enhanced employee morale and productivity (Lockwood 2003)[6]. In the 1960s, research on working mothers and dual earner families came into light as women’s participation grew significantly in the workforce (Lewis et al.2007).[23]

Rappaport and Rappaport in 1960’s investigated on how in the agricultural societies work and family were closer to each other and how industrial revolution in the 18th and the 19th century created a division between work and personal life and further how electricity and machines made mass production possible which essentially meant setting up of factories away from home. Their research studied segmentation of work and family life due to movement of work away from home/family to the factories and cities and they covered a limited scope of work and life balance. Their research was primarily concerned with work and its impact on family and did not relate work and its impact on other aspects of life. Still, theirs was a significant beginning and more research followed soon.

Prior to 1970s, ‘work’ and ‘family’ were primarily treated as separate segments (Blunson et al. 2006). Interdependence of ‘work’ and ‘family’ was studied by Kanter (1977). He has highlighted in his study that ‘aspects of work’ affecting ‘family life’ and ‘aspects of family life’ affecting ‘work’[24]. During the same time Pleck (1977) analyzed work-family role system as a collection of male work role, female work role, male family role and female family role. Pleck (1977) further stated that women experience spill-over from family role into work role and men experience spill-over from work role into family role [25]. The ‘spill-over theory’ was further strengthened by Staines(1980) who suggested that spill-over from one segment of life into another can have both positive and negative consequences. Staines (1980) supplemented the discussion on work-life aspects through ‘compensation theory’, according to which a person attempts to compensate deficit in one aspect of life through additional investment in other aspect of life [26].
As cited by Pickering (2006), Greenhaus & Beutell (1985) gave a new direction of work-family research by presenting the work-family conflict theory according to which an individual has to perform different roles and family and work compete in demanding time, attention and commitment to perform these roles [27]. Role behaviors in family and work thus conflict with each other, and create work-family conflict. According to Greenhaus and Beutell (1985), as cited by Skinner and Pocock (2008), primary causes of conflicts due to paucity of time are time related stress and paucity of time for life outside workplace [28]. Frone et al., (1992) conducted structured interviews of 631 working adults in New York, as a part of longitudinal study of stress process. When they asked about prevalence of work-family role conflict in their lives, nearly 60% of respondents reported that their work role interfered with their family role and 22% reported that their family role interfered with their work role.[29]

Ray & Miller (1994), Thomas & Ganster (1995) and Warren & Johnson (1995) found that ‘there is an association between family-friendly work environments and others factors of interest including turnover, absenteeism, job satisfaction and organizational commitment’. Managers who supported and encouraged employees attempts to coordinate work and family demands reported several positive outcomes. Such employees felt less work/family conflict and at the same time reported less turnover, burnout, absenteeism and increased organizational commitment. [30] [31] [32]

Fisher-McAuley et al. (2003) examined the relation between employees’ beliefs about having a balance between work and personal life, and the feeling of job stress, job satisfaction, and reasons why one might quit his/her job. The data was collected from two independent, heterogeneous samples of employees. The first sample comprised of 603 fitness professionals while the second consisted of 545 managers employed in a variety of organizations spanning many industries and functional departments. The findings indicated that having a lack of work/life balance was an occupational stressor that leads to strains, including feeling of overall work strain, job dissatisfaction, non-work related reasons for leaving and turnover intentions.[33]
Jeffrey H. Greenhaus et al (2003) in their study the relation between work–family balance and quality of life studied the relation between work life balance and quality of life as prominent factor of well-being. Work–family balance is associated with quality of life when there is substantial time, involvement, or satisfaction to allocate across roles. Quality of life is consistently high for those who are more engaged or more satisfied in family than work, and is lowest for those who are more engaged or more satisfied in work than family. Therefore, imbalance produces such small differences in engagement or satisfaction between work and family roles that the degree of balance has little or no implications for an individual’s quality of life. [5]

Hyman and Summers (2004) classified seven major problems which are associated with current practices over work-life balance these are unevenness of adoption across different sectors and organizations, lack of formalization of policies at organizational level, restricted employee voice over the introduction and implementation of policies, policies are primarily to meet business needs rather than those of employees, there is no evidence of reduction in working hours, tangible and intangible work intrusions into domestic life, domestic responsibilities are still performed primarily by women irrespective of their employment status.[34]

Joanna Hughes, Nikos Bozionelos (2007) study is to explore the views of male workers in a male dominated occupation on issues that pertain to work-life balance. It emerged that work-life imbalance was not only a source of concern, but also that it was the major source of dissatisfaction for participants. Furthermore, participants made a clear connection between problems with work-life balance and withdrawal behaviors, including turnover and non-genuine sick absence.[35]

Muhammadi Sabra Nadeem (2009) conducted study to explore the relationship between work life conflict and job satisfaction in Pakistan and he found that job satisfaction is significantly negatively correlated with work to family interference and family to work interference. However, the correlation of workload is positive and insignificant which shows that workload does not affect the job satisfaction of the employees in Pakistan. The policy
alternative should be that a supportive management is required to minimize the conflict between work and family. [36]

**Bhargava, S & Baral (2009)** in a study of 730 managerial employees from various organizations in India, it was found that family contributes extensively to work in terms of enhancing performance and positive emotions at workplace. One of the key findings was availability of work-life balance practices. When an organization offers its employees policies, practices, benefits and services to help them integrate their work and family responsibilities, employees feel committed to the organization and indulge themselves in organizational citizenship behaviors. [37]

**Lewis & Humbert (2010)** suggested in his study that the most important form of flexible work arrangement used in the organizations are four days a week is double edged and complex in its effects. It supports mothers, but at a cost because of gendered assumptions. Despite a commitment to flexibility and “work life Balance”, the gendered construction of the ideal worker and ideas of competence conflated with hegemonic masculinity, remain powerful. This, together with a prevalent “good mother” ideology, undermines both gender equity and workplace effectiveness. [38]

**Niharikadoble, (2010),** suggest that both men and women have a strong belief that flexible working hours will enhance the work life balance. Home working is another factor which was preferred by both men and women that would enhance work life balance. Women felt that child care facilities should be available in workplace to ensure work life balance. The spillover of work into family life showed that both men and women did not have enough time to spend with their families and more over work pressures affected quality of family life.[39]

**Krishna reddy et al (2010),** in his study said that work stress is usually conceptualized as work role ambiguity. Each has the potential to affect WFC with respect to role conflict, the more conflict among work roles the greater the chances that stress will spill over and cause negative behavior that interfere with fulfilling family roles also found that the age of the children was positively correlated with FWC among the working women. Five factors that are considered to contribute to work life balance are assessed.[40]
They are

- **Work related**
  - Flex time
  - Option to work part time
  - Freedom to work from home

- **Family related**
  - Availability of child care facility
  - Flexibility to take care of emergencies at home.

*Sakthivel Rania, Kamalanabhanb & Selvarania (2011)* analyze the relationship between employee satisfaction and work/life balance. The construct used for this research consists of career opportunity, recognition, work tasks, payments, benefits, superior subordinate relationship, employee satisfaction, and work/life balance. This study makes a contribution to join two distinct research streams, namely employee satisfaction, and work/life balance. Findings suggest that high correlation exists between work task and employee satisfaction with a mediator variable namely work-life balance.[41]

*Mathew and Panchanatham (2011)* conducted a study to explore the work life balance challenges faced by women entrepreneurs. 26 women respondents were collected for the study and the findings of the study are increased health risks among entrepreneurial women and work-family issues resulting from the inability to manage time properly, resulting in long hours of continued engagement in entrepreneurial activities the major work life balance problems observed are role overload, dependent care issues, quality of health, problems in time management and lack of proper social support.[42]
A.V.G Narayanan (2012), in his study found that Work place rigidity is the first and most important factor which affects more on the life of employees than the work. Secondly family circumstances are the second highest factor loading in work life balance. Personal commitments have rigorous impact on matching work than the life. And it is impossible to shift or share the work of one person to another in some peculiar situation. A person has to manage work and life equally. Life without work, work without life is impossible to everyone. Improper work life balance policies can lead to dissatisfaction in work and life, which leads to mental ill health, stress, spillover of work to home, behavioral changes and failure in family care.[43]

Dr.K.Jawahar Rani et al (2012) conducted a study to investigate the intensity of work family conflict creating organizational role stress and to identify the organizational role stress and its relation to life satisfaction among women professionals. 491 women professionals were selected for the study they found that stress among women is greatly depending on work family conflict. Women having more work family conflict feel high stress. Women with low satisfaction experience high level of stress.[44]

Noor Fatima, Dr. Shamim A.Sahibzada (2012), studied the determinants of work life imbalance with respect to male and female university teachers. For the study 146 teachers responses were taken and the results were partner support, colleagues and job resources are positively associated with Work life balance and also the study conclude that partner support male teachers are more satisfied with work life balance as compared to females. Female employees felt more work life strain due to child care responsibilities. The elder dependency is doubling the burden of women than men. Also there is a less colleague support to female employees as compared to their male counter parts.[45]

Babatunde Akanji (2012) conducted study to explore the perceptions of Work-Life Balance (WLB) practices in a developing nation of Nigeria. Thus, a qualitative approach was employed by conducting 61 in-depth interviews with Nigerian employees (41 women and 20 men) working in frontline employments in the banking, telecommunications and insurance sectors about their perceptions of WLB. The findings showed that though conflict situations
existed more than work-family enrichment, but under different circumstances due to the long legacy of national challenges facing Nigeria.[46]

**V. Varatharaj, S. Vasantha (2012)** aimed to study the work life balance of working women in service sector to identify the various factor which helps to maintain work life balance among women employees. They found that the majority of the women employees feel comfortable in their work place irrespective of their small personal and work place irritants. Work life balance entails attaining equilibrium between professional work and other activities, so that it reduces friction between official and domestic life. Work life balance enhances efficiency and thus, the productivity of an employee increases. It enhances satisfaction, in both the professional and personal lives.[47]

**Lalita Kumari (2012)** conducted study on employee’s perception of their work life balance policies and practices in the public sector banks. Quota sampling method was followed. Data was analyzed with the help of factor analysis, descriptive statistics, mean, t-test and Karl Pearson’s correlation. The findings of the study emphasized that each of the WLB factors on its own is a salient predictor of job satisfaction and there is a significant gap among the female and male respondents with job satisfaction with respect to various factors of WLB. she suggested that the study may have practical significance for human resource managers of especially banks to improve staff commitment and productivity along with designing their recruitment and retention policies.[48]

**R.Arun Raj (2013)**, conducted study on the work life balance of employees in pharma marketing. And he found that Work life balance has always been a concern of those interested in the quality of working life and its relation to broader quality of life. Primarily a person has two roles to play; professional and personal role which is a significant in shaping the performance of an individual especially in Indian context. And he argues that it is the high time for human resource managers to make more serious efforts towards striking a balance between work and life for their employees. The nature of specific job position cannot be changed but the way it is performed requires change.[49]
Guru raja, et al (2013) conducted descriptive survey among 67 nursing faculty towards their perceptions and attitude towards quality of Work-Life. The results showed that majority experienced well balanced work-life and none of them rated under poor work-life balance. Data regarding job satisfaction showed majority had moderate job satisfaction and few had high job satisfaction. The correlation between work life balance and job satisfaction showed positive correlation (r = 0.77) which can be inferred saying that high quality of work life balance will improve job satisfaction and vice versa.[50]

Vijaya Mani (2013), conducted study on women professionals with the Objective to explore attitudes and beliefs of women in the formal work organizations and the WLB challenges faced by women professionals in Tamil Nadu, India. 500 respondents were selected for the study. The findings of the study are role conflict, lack of recognition, organizational politics, gender discrimination, elderly and children care issues, quality of health, problems in time management and lack of proper social support are the major factors influencing the WLB of women professionals in India. There is a widespread demand from employees for the right to balance work and home life. In today’s busy world finding time for oneself seems impossible. Health and wellness programs can, for sure help working women in balancing their personal and professional life. There are changes in large part due to a significant cultural shift in parental perspective that is, an increased acceptance of giving education to girls that allows for the possibility of women working outside the home, contributing economically to the family and even pursuing a career. [51]

Komal saeed etal (2014) conducted a study to investigate the relationship between work life balances, job stress and job satisfaction among university teachers. A sample of 171 has been taken as random sampling. The results show that a significant and positive correlation exists between work life balance and job satisfaction. And also relationship between work life balance and job satisfaction is found significant and of moderate positive nature which mean increase in work life balance will results in increase in job satisfaction. [52]
2.3 STUDIES ON WLB AMONG IT PROFESSIONALS

Reimara Vaik, Vasanthi Srinivasan(2011), conducted an exploratory qualitative study of 13 women IT employees in Bangalore city to study how do work family factors influence the work family balance and what are the challenges and strategies in achieving it. The women are from various life stages like married with 2 children, single women, married with no children working in technical and domain experts are selected and 6 themes emerged from the narratives: familial influences on life choices, role responsibilities and negotiation, self-identity, organizational policies work life challenges and social support. And concluded that self-identities primarily lie in their work and they strongly influenced to perform the house hold work. They can achieve work life balance by setting priorities in their work and personal life’s through the support of HR policies and programs.[53]

Mrs. Vanishree (2012) in their study argues that the success of any organization is highly dependent on its workforce. Especially the ITes BPO industry needs to flexible enough to develop commitment and talent in their workforce. The work life balance arrangements availed by the employees in BPO sector work schedule is unusual and excessive targets to be achieved. Employees need to interact with different types of callers, some of whom may be overbearing and irate. All this may lead to burn out and stress in the employees. The companies should take care of factors like working from home, flexi time and swap in order to retain talent. Employees living with joint families are more comfortable than compare to nuclear families.[54]

Manisha purohit (2013) in his study a comparative study of work life balance in various industrial sectors analyzed that only some companies had work-life balance policies, as part of the policies concerning employees. Companies had similar policies across all operations around the globe. These are companies with international exposure Linkages (as in the case of most software and services companies). Flexi time in terms of flexible working hours was practiced in most of the IT companies compared to other companies in the services sector and no company in the manufacturing sector. Majority of the companies in the IT sector offered fee/discounted on-site health and fitness facilities compared to three-fifth of the manufacturing companies surveyed and half the services companies studied. Very few
companies had the provision of free/discounted off-site health and fitness facilities. Most of the services are provided as employee welfare or well-being provisions rather than work-life balance provisions. Employee welfare is a totality concept and caters to social, economic and other domains of an individual.[55]

**Prof. K.S. CHANDRASEKHAR et al, (2013)** studied on 350 IT employees with the objective of what aspects of work interfere with personal life, what are the factors causing stress in the IT industry and its management among the executives [56]. And they found that

- work related factors that interfere with personal life interfere more on IT employees personal life, they work late into the night at home, check back with the office even when they are on vacation, also check mail from home after returning from work also IT employees volunteer for special projects in addition to their normal job duties were the factors that found to have a moderate interference on IT employees personal life. On the other hand, IT employees works on their days off were found to have lesser interference on their personal life.

- Awareness and prevalence about the work – life balance programs among the work-life balance programs, the highest difference between the awareness level and pervasiveness was noticed in work from home all the time, followed by part time work. The least difference was found in flexible work schedules of the It employees and also for the paid maternity/paternity leave.

- Among the Work Life Balance programs adopted by the IT companies, if the IT employees choose part time work, career breaks and work from home all the time involves high risk. Whereas paid maternity/paternity leave, work from home occasionally and flexible work schedules has less risk involved to an IT employees position. And concludes that proper work life balance will provide job satisfaction which in turn will create organizational success and develop competitive advantage for IT organizations.
Dr. Prabhakarayana (2013), conducted the study to find out the extent to which various factors like hours worked, work involvement and family responsibilities, affect married working women’s work-life balance and how various factors affecting work-life balance influence the married working women from Academic, IT and Healthcare sectors. 180 married respondents were selected for the study and data was collected by sending questionnaires [57]. And they found that

- Married working women find it very hard to balance their work and personal life irrespective of the sector they are into, the age group they belong to, the number of children they have and their spouse’s profession.

- The IT sector working professionals were found to have more difficulties in balancing work and family followed by academic sector working women and then health sector working women.

- Working hours related WLB problems were more for the IT sector professionals while time to socialize or being relaxed is tough for working women of health sector.

- The married working women in the age group of fewer than 30 years were found to have more work-life imbalance problems than those in the age group of 30 to 40 years while married working women over 40 years were found to be balancing work-life slightly better than the above mentioned age groups.

Jithesh Sathyan (2014) aimed to identify the causes of work related stress in IT professionals. The study collected data from 128 IT professionals, to identify a subset of professionals experiencing high levels of work place stress. 53 professionals reported work related issues as primary factor contributing to stress. Work related issues causing extreme stress, most frequently experienced physical symptoms associated with work related stress.[58]
Sangeeta Bhatnagar (2014), Conducted a study to identify the factors affecting work life balance and to understand the consequences of work/life imbalance on efficiency, health and personal as well as professional life of employees of IT sector. Data were collected from 100 IT employees from Delhi and found that there is significant in difference between age, marital status and work load, but there is significant difference between gender and work load of IT professionals, and also there is significant difference between age and loosing of temper of IT professionals.[59]

Onur Balkan (2014) conducted a study to know the effects of work life balance on job stress and individual performance. A sample of 232 postgraduate and doctoral students was selected for the study. The survey consisted of three measures. In the first part questions about the work-life conflict; in the other two parts questions designed to measure job stress and performance were asked. The results of the study revealed that there is strong relation between job stress and work life balance that is because of wok family conflicts.[60]

2.4 LITERATURE REVIEW ON JOB STRESS

Job stress is viewed in terms of the incompatibility of work demands. Working conditions that give rise to high job stress include heavy workloads, high levels of role ambiguity, underutilization of abilities, lack of participation in decision making, health and safety hazards, job insecurity, tight deadlines and responsibility for the safety and well-being of others. High work stress is linked to poor physical and mental health, high family stress, marital conflict, poor performance of work and family roles, low work morale, organizational commitment and job satisfaction.

Adelina (2000) examined the sources of stress associated with male and female retail managers, a sector recognized as being stressful and where women are more likely than in other occupational sectors to be managers. A total of 255 detailed self-completed mail questionnaires were distributed to males and females at various levels of retail management and responses were received from 62 female and 70 male respondents. The study found that both male and female managers were facing similar job pressures, in particular from ‘work overload’, ‘time pressures and deadlines’, ‘staff shortages and turnover rates’ and ‘long
working hours’. Further, the study found female managers are suffering from additional pressures caused by sex discrimination and prejudice.[61]

**Sheena Johnson et al (2005)** in their study “the experience of work-related stress across occupations” made an attempt to compare occupational stress among diverse set of occupations. 26 occupations were selected for the study and the three variables namely psychological well-being, physical health and job satisfaction are measured and compared. Out of 26 occupations, call centers, prison officers, police, teachers, customer services, social services employees are having worse than average scores on each of the three factors and reported as the most stressful occupations regarding physical and psychological well-being and as having the lowest levels of job satisfaction. [62]

**Coetzer and Rothmann (2006)** conducted a study to identify occupational stressors for employees in an insurance company and to assess the relationships between occupational stress, ill health and organizational commitment. A cross-sectional survey design was used with a sample of 613 employees in an insurance company. An Organizational Stress Screening Tool (ASSET) was used as measuring instrument. The results showed that job insecurity as well as pay and benefits were the highest stressors in the insurance industry. Two stressors, namely job characteristics and control were statistically significant predictors of low organizational commitment. Physical ill health was best predicted by overload and job characteristics. Three stressors, namely work-life balance, overload and job characteristics best predicted psychological ill health.[63]

**Aniza et al. (2010)** conducted a cross-sectional study on organizational factors that influences job stress among Medical Laboratory Technologists (MLT) in Klang Valley’s Hospitals. Three organizational factors that were measured in the study are interpersonal factor, job condition and career development. A total of 249 respondents participated in this study, 126 were from the private hospitals and 123 from the government hospitals. The study found prevalence of stress was higher in the private hospitals compared to the government hospitals. Further found all the three organizational factors were significantly associated with job stress.[64]
Aamir sarwar (2013) in their study found that level of stress is same for both men and women. When compare to manufacturing and services sectors services sector have more stress. The dimensions of work holism, work values and job demands that emerged as predictors of stress and anxiety Work stress has significant impact on an individual employee and family.[65]

Ejaz Ahmed Khan et al (2014) in their study “Impact of Job Stress on Job Attitudes and Life Satisfaction in College Lecturers”, aimed to find out the relationship of job stress with job attitudes in college lecturers. Total of 140 respondents were selected for the study. And they found that there is a negative relationship of job stress with job performance, job satisfaction and that the level of stress and turnover intentions in unmarried lecturers is high as compare to married lecturers.[66]

2.5 STUDIES ON JOB STRESS AMONG IT PROFESSIONALS

Employees of IT and its enabled service companies are at the highest risk of suffering from lifestyle diseases. They are constantly under stress because of challenging and decisive role at every phase, work against the clock and excellence of work intentions. A very few organizations have addressed this problem but it is estimated that at this rate, the growth of the IT sector might be under threat. In early 2000, there was truly a shortage of IT professionals in India and IT companies did every possible thing to keep employees happy. But today, maximum number of educational institutions in India, especially engineering colleges have been producing students for IT companies. Every other good student aims to become a Software Engineer. This over supply of engineers in the Indian market has led to increased pressure on both existing IT employees and those looking for a job. Today, companies do not care too much if a Software Engineer leaves them because they can find several more desperate candidates for replacement, probably willing to work for a much lesser pay.

There is no doubt that IT companies (particularly MNC's) offer a much better work culture, but they form just a small percentage of the entire industry. People who are super-good in IT will still do well, but let’s accept the fact that most of the people find it harder and harder to remain in Software Industry as years pass by. Most people, somewhere or the
other fear getting displaced by younger generation as IT is known to be a young-blood industry. Several people who work in IT has zero family life and they are totally fed up of office politics, that leads to stress, depression and even to committing suicide, as it is shown evidently, where it’s not a myth rather than a bitter reality in the Information Technology sector.

**Rajeswari and Anatharaman (2003)** examined causes of negative pressure among software professionals, from the perspective of the software development process. A multiple response questionnaire was developed to measure sources of pressure among software professionals, based on a series of interactions with academicians, software professionals and senior software professionals employed in software industry. Ten key factors that cause stress in software professionals are identified using exploratory factor analysis from 156 usable responses. These ten factors are found to explain nearly two-thirds of the variance. The results indicate that stress resulting from fear of obsolescence and individual team interactions account for maximum variance. The results reveal that the stress levels are not high, among the respondents of the current study.[67]

A study conducted by **Chaturvedi, Kalyanasundaram, Jagadish, Prabhu and Narasimha (2007)** on IT/ITeS professionals in Bangalore to detect stress, anxiety and depression showed that 36% of the sample could be considered as probable psychiatric cases. Common problems noted were the feeling of being constantly under strain; the inability to enjoy daily activities; being edgy, bad-tempered and dissatisfied with work tasks assigned; and not feeling in good health. The authors found that the rate of psychiatric morbidity in the sample was higher than that reported for the general population in India.[68]

In Japan, **Tominaga, Asakura and Akiyama (2007)** conducted a survey on over 1,000 IT employees distributed across 53 companies and showed that the chief stressors were work overload, career and future ambiguity, inadequate performance appraisal systems and poor supervisor support.[69]
Vimala and Madhavi (2009) explored the influence of age and experience on stress and depression and the relationship between stress and depression among women information technology (IT) professionals in Chennai, India. The study was conducted in Chennai, India with a sample of 500 women IT professionals. The sample selection was done by a convenience sampling method. The data collected were analyzed using descriptive one-way analysis of variance and Pearson’s correlation test. Results showed that the women IT professionals experience moderate level of overall stress and stress dimensions. This study also reveals that 84% of the respondents experience medium level of depression and also suggest that age and experience significantly influence the overall stress and depression experienced by the employees. The study found a strong relationship between overall stress and depression.[70]

Dr. A. Chandra Mohan et al (2010) in their study “An Empirical Study on Stress Levels among Software Professionals” found that employees with high and medium self-esteem experience high level of stress. A total of 300 software employees were taken for the study with the objective to know the level of stress experience by the software employees. Long working hours, work pressure, erratic food intervals, anxiety were found to be the reasons affecting personal health. Married employees comparatively experience high stress than unmarried.[71]

Dr. C. Madhavi (2011) studied the relationship between work family issue and the role stress dimensions among 485 women software professionals and found that there is association between work family issues and demographic factors. Ten organizational role stress dimensions like inter-role distance, role stagnation, role expectation conflict, role erosion, role overload, role isolation, personal inadequacy, self-role distance, role ambiguity, resource inadequacy were taken to find out the relationship between work life issues and stress dimensions. Finally she concluded that stress and work life issues prevail among dual career women. The role dimensions experienced by the women software professionals make a significant impact upon their work family issues.[72]
L. Ranjit (2012), in his study “Job Stress and Quality of Life of Women Software Employees” found that all demographic factors like age, marital status, educational qualification, designation, monthly income and hours of work do influence the quality of life of the respondents and the level of job stress influence the level of quality of life. Stress has touched almost all professions and is high in software profession because of their nature of work, target, achievements, and night shift and over work load. From the 201 women respondents he concluded that the higher the level of stress lower is the quality of life and vice versa.[73]

T. Thirumaleswari (2013) conducted a study on job stress among software employees and relaxation techniques. 100 respondents were randomly chosen for the study. And they found that the level of stress and its amount of consequences vary within and between organizations based on the nature and type of work practices.[74]

K. Tamizharasi (2014) conducted a study on work stress of outsourcing employees. A sample of 462 employees was taken for the study and they found that salary, job task, colleagues, work environment, autonomy and workload are the major variables to introduce the stress among the employees.[75]

2.6 NEED FOR THE STUDY

From the literature it is observed that work life balance is an important issue faced by today’s employees and organizations. Stressful environments especially the job stress influence work life balance. It is also found that the concept job stress and its contributing factors are not studied in depth. Further the demographic variables varying with respect to job stress also to be studied. In continuation of this the extent of job stress on work life balance with respect to the demographic profile of respondents is a critical area which needs to be studied for initiating appropriate work life balance measures among software professionals.
Software professionals’ nature of job is highly time-bound, client-oriented and technology intensive. Studies are required to analyse the impact of job stress on work life balance and the relationship among them with respect to diverse demographic profiles. Further little is known about how the job stress is influencing the family to work conflict and work to family conflict and the respective support employees enjoy. It would help the employees and the organisations to initiate pragmatic measures to keep stress levels under control and maintain healthy work life balance. Studies of this nature analyzing job stress and work life balance on software professionals and the relative impact on each other are very limited. Hence the study is taken up to analyze implications of work life balance and job stress among software professionals.

2.7 RESEARCH GAP

Researchers have predominantly focused on either work-life balance issues or occupational stress faced by IT professionals in India and very scant work has been done in the area of work-life balance along with job stress of software professionals. The divide of demographic variables with respect to WLB and Job Stress is not much studied and there are many unanswered questions. What is the role of Job Stress on WLB? How do the Job Stress and WLB vary with respect to the demographic variables of the software professionals? How do the work to family conflict and the family to work conflict influence the WLB? What is the impact of work to family support and family to work support on WLB? These answers which profoundly are the root causes of work-life balance issues and the impact of job stress on work-life balance and their interdependent relation are analyzed in the study.

2.8 RESEARCH QUESTIONS:

The following research questions have been developed to fill the research gap which was stated in the above head.

- How are work-life balance difficulties and job stress of software professionals related to each other?
What are the major factors of job stress and how do they vary with the demographic profiles of the software professionals?

What is the extent of the contributing factors on the work life balance of the software professionals?

What are the employee initiatives to support the work-life conflict?

What are the demographic variables that describe high work-life conflict and support?

What management actions can help to reduce job stress?

What management actions can help to improve work-life balance?

2.9 STATEMENT OF THE PROBLEM

Though studies on Work Life Balance and Job Stress are not new, of late, they have received more attention than ever before. These two issues pose risks to workers’ well-being as well as to organizational performance especially when the profession involves complexities in technologies involved, changing customer expectations etc.

In the IT sector software profession is quite complex, from understanding of clients’ requirement to the maintenance phases, different sets of knowledge and skills are required. Hence, various personnel are involved in a cycle, like business developers, project managers, system analysts, programmers, coders, and quality assurance people; apart from other consultants who provide the insight into the domain knowledge of the area in which software is developed. Thus the software profession in IT sector is one of the significant and stressful profession and the workforces of this segment are facing job stress and work-life difficulties for the better performance in manifold responsibilities. With limited research available on work life balance with job stress factors for those connected with software profession, this topic is taken up for study.
In this research an attempt is made to study the work life balance issues and WLB practices adopted by the Indian IT organizations that contribute to better performance of the organizations. Also the specific factors that are caused for job stress of software professionals are analyzed to address the work life balance of the employees. Detailed analyses of work-family conflicts, work-family supports are taken up in the research. Responding to questions on work life balance and stress is difficult as the respondents have to think and deliberate to know and assess for themselves the extent and underlying aspects of work life balance and stress. Further, provision of sufficient time for the respondents for their honest answers is always a challenge as each time; some of their responses may vary to certain aspects. It required a thorough revision of the wording, sequence and classification of the questions in the questionnaire. Efforts were put in to sincerely gather the truthful and uncontrived data from the respondents that ensure the results to be reliable and pragmatic.

2.10 OBJECTIVES

The objectives of the present study are

- To assess the work life balance and stress of software professionals.
- To measure the association between WLB and factors influencing WLB among software professionals.
- To study the factors influencing WLB with respect to the demographic factors of software professionals.
- To identify the factors causing stress among the software professionals.
- To analyze the factors influencing stress with respect to the demographic factors of software professionals.
- To examine the initiatives of the organizations for better work life balance.
- To suggest the strategies for effective implementation of work life balance.
2.11 VARIABLES UNDER INVESTIGATION:

The variables under investigation in this study are:

- **Dependent Variables**: The dependent variable are Work Life Balance and Job Stress

- **Independent Variable**: Work to family conflict, Family to work conflict, work support, family support, stress factors.

- **Demographic Variables**: Gender, Age, Marital status, Qualification, Overall experience, Income, Size of the organization, family type, dependents.

2.12 STRUCTURAL MODEL OF THE STUDY

![Structure Model of the study](image)

Fig-2.1: Structure Model of the study
2.13 HYPOTHESES

**H₀A:** There is no significant association between work-life balance and work-family conflicts of software professionals.

**H₀B:** There is no significant association between work-life balance and work-family supports of software professionals.

**H₀C:** There is no significant association between work-life balance and Job stress of software professionals.

**H₀D:** There is no significant difference across the demographics with respect to work life balance issues of software professionals.

**H₀E:** There is no significant difference across the demographics with respect to job stress factors of software professionals.

**H₀F:** There is no significant impact of different organizational factors on job stress of software professionals.

**H₀G:** There is no significant impact of different factors on work life balance of software professionals.

2.14 METHODOLOGY

In order to accomplish the stated objectives the following methodology is adopted

2.14.1 SOURCES OF DATA

The study is based on primary data.

2.14.1.1 PRIMARY DATA

Primary data is collected through a well-framed and structured questionnaire to elicit the well-considered opinions of the respondents.
2.14.1.1 QUESTIONNAIRE DESIGN

Based on the in-depth study of literature the questionnaire for the study is prepared. From the extensive literature survey the information is divided into five parts

Part-I: Demographic variables of the respondents

Part-II: Work-family conflicts and supports

Part-III: Job stress variables

Part-IV: Work-life Balance Initiatives

Part-V: Benefits of Work-life Balance Initiatives

Most of the responses are measured with the help of 5 point Likert scale from ‘strongly disagree to strongly agree’, ‘Never to Always’, ‘Very unlikely to Very likely’. The remaining responses are collected using rating scale and multiple choice questions. Direct interviews and discussions are also conducted with respondents to get basic inputs.

2.14.1.2 SECONDARY DATA

The secondary data is collected from business periodicals, business journals, magazines, publications, reports, research articles, websites, manuals and booklets.

2.14.2 PILOT STUDY

Though the questionnaire was developed with the help of widely used and accepted scales, the researcher again conducted a pilot study, for which the standardized questionnaires were supplied to 50 software professionals and this was tested for reliability using Cronbach alpha analysis. The reliability analysis displayed fair amount of consistency in the scale items used in the questionnaire. The questionnaire was further modified with the help of pilot study respondents and software employees. The modifications include presenting the questionnaire in table form to reduce the respondents’ time to fill the
questionnaire and using simple English that is easily understandable for the software professionals.

2.14.3 SAMPLING PROCEDURE:

The study is proposed to be conducted among software professionals in IT industry. The present study is confined to a sampling frame of software professionals in India. The study adopts multi stage sampling to collect the responses of the software professionals.

Organizations involved in computer programming-related work and software development segments were considered as the population of the study. Since, software professionals are spread over wide geographical area; in the first stage the sample is taken from the prominent IT hubs in India such as Bangalore, Hyderabad, Chennai, Pune and Mumbai cities using judgment sampling, where a large number of IT companies are located and software professionals are employed. The questionnaire is distributed personally to the software professionals and the soft copy also is floated to all the contacts of software professionals in turn.

In the second stage, proportionate stratified sampling is applied as the filled in questionnaires are screened for the gender ratio 73:27 as observed for the software professionals. Gender is taken up for the strata as gender is observed to be significant factor to influence WLB and Stress [76]. Software professionals are in a ratio of 70:30 according to the gender [77]. Either in person or through mails, the gender ratio of 70:30 is maintained in the administration of the questionnaires.

In the third stage the specific employees in each strata are selected using convenience sampling. Software Professionals who have been full time employees with at least 6 months of work experience in the selected IT companies were taken as sample.

2.14.4 SAMPLE SIZE:

The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. For populations that are large, Cochran (1963:75) developed the equation to yield a representative sample for a study.[78]
Sample size \( n = \frac{Z^2 pq}{e^2} = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 385 \)

\( Z^2 \) = Abscissa of the normal curve that cuts off an area \( \alpha \) at the tails (1 - \( \alpha \) equals the desired confidence level, e.g., 95%), which is 1.96 for 95% confidence level, \( e \) = Desired level of precision (acceptable margin error), \( p \) = The estimated proportion of an attribute that is present in the population, and \( q = 1-p \).

More than 1000 questionnaire were mailed to software professionals and received 490 filled questionnaires. Out of 490 questionnaires 450 were useful with full information in all aspects. Hence the sample size of this study is 450 employees.

2.15 PERIOD OF THE STUDY:

The period of study is during March 2014 – December 2014. Before the actual study starts a pilot study was conducted for a period of 3 months from December 2013 to February 2014 across the organizations. Interviews and discussions were conducted with employees starting from entry level software engineers to senior level software engineers to know different issues related to work-life and organization climate. After receiving certain basic advices from entry level software engineers, team leaders & Senior software engineers on WLB and job related issues, a questionnaire was framed. Questionnaires were sent to employees across software companies during the period March-June 2014 and received the information till December 2014 by continuous and repeated follow ups.

2.16 STATISTICAL TOOLS FOR DATA ANALYSIS:

In this research, all the survey responses were coded into Microsoft Excel 2010 spreadsheet, verifying for missing data and inconsistently filled-in questionnaires. The data coded were transferred to IBM SPSS 22 under its relevant defined variables, while creating the data file for analysis. The data analysis for the present study was undertaken in three phases. In the first phase, data collected using scaling techniques were analyzed employing reliability analysis. In the second phase, all sorts of descriptive statistics of the responses were calculated. In the final phase testing the hypotheses was done, using statistical tests.
The following statistical tools were used for data analysis:

- Descriptive Statistics (Frequencies, Percentages, Means, Standard Deviations)
- Chi-square test
- Sample t-test
- Analysis of Variance (ANOVA)
- Correlation Analysis
- Factor Analysis
- Multiple Regression Analysis

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<th>S. No</th>
<th>Objectives</th>
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<td>1</td>
<td>To assess the work life balance and stress of software professionals.</td>
<td>Descriptive Statistics</td>
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<td>2</td>
<td>To measure the association between WLB and factors influencing WLB among software professionals.</td>
<td>Chi-Square test</td>
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<td>3</td>
<td>To analyze the factors influencing WLB with respect to the demographic factors of software professionals.</td>
<td>Sample t-test, ANOVA Correlation Analysis and Multiple Regression Analysis</td>
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<td>To analyze the factors influencing stress with respect to the demographic factors of software professionals.</td>
<td>Sample t-test, ANOVA Correlation Analysis and Multiple Regression Analysis</td>
</tr>
<tr>
<td>6</td>
<td>To analyze the initiatives of the organizations for better work life balance</td>
<td>Descriptive Statistics</td>
</tr>
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</table>
2.17 SCOPE OF THE STUDY:

The study has focused on work-life balance issues and job stress of software employees of various IT companies in INDIA and its impact on the performance of employees. The study has covered topics like work to family conflict (Work interference with family), Family to work conflicts (Family interference with work), work support, Family support, Various identified causative factors of job stress, awareness of work-life balance initiatives in the organization, practices of initiative programmes and benefits of the initiative programs for both employer and employee. The above mentioned topics are covered in depth in the study for their variations in the demographic profiles of software professionals and also analysis was done using various statistical tools. As a result study can be used as a reference by corporate people and academicians for further research.

2.18 LIMITATIONS OF THE STUDY:

- The study examine the level of work-life balance and job stress on the basis of opinion collected from entry level, middle level and higher level software employees working in different organizations of South India (Bangalore, Chennai, Hyderabad and Pune). This always raises a doubt on respondent bias in giving the responses that limits the validity of the study. Further, respondents’ opinion may change from time to time and the responses are also subject to variation depending upon the situation and attitude of the respondents at the time of the survey.

- The findings may not be same all over India, since the perceptions of the employees are likely to vary depending upon working environment and other dimensions influencing work-life balance.

- In the same way stress is a multifaceted phenomenon and is a subjective experience which differs from individual to individual. What may be a challenge for one, will
be a stressor for another. This research focuses only on the stress at work place due to occupational stress and its impact on work-life balance of the employee.