CHAPTER - II
REVIEW OF LITERATURE
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REVIEW OF LITERATURE

In this chapter an in depth review of literatures undertaken on gender inclusivity and diversity perspectives from India and different states of works are presented. This chapter probes into the secondary literatures and summarises the threads of arguments, taken into consideration for the objectives of the study.

2.0 WOMEN IN IT INDUSTRY: INDIAN SCENARIO

India and China each represent one billion emerging participants in the global marketplace and the “third billion” is made up of women, in both developing and industrialized nations entering the global economy during the decades to come. Women are gearing up to play a vital role in countries around the world as significant as that of the populations of India and China which is over a billion. The trajectory is that this ‘third billion’ has not drawn the needed attention from all the stakeholders like governments, business leaders, or other stakeholders in many countries. There are enough evidences that reiterate the fact that women can be powerful drivers of economic growth. The report estimates indicate the increasing trend of female employment to male levels could have a direct impact on GDP of 5 percent in US, 9 percent in Japan, 12 percent, UAE, 34 percent in Egypt, but greater participation of women has far more impact than that of numbers which reveal. (Source: Empowering the third billion women and world of work – Booz and Co, 2012.)

A survey reveals that even though 89 percent of women desire to take up leadership roles there are not enough women in top positions. Globally 64 percent of the employees state that their employers have more male than female managers. For Instance in China (90 percent), India (80 percent), Japan (78 percent) and Turkey (75 percent)
Norway (54 percent), Poland (53 percent), Sweden (53 percent) the share of male and female managers is more equally divided. (Source: Randstad India’s recent work monitor survey, 2012)

**Gender Diversity and Corporate Performance’s Credit Suisse Research Institute’s Report 2012** stated it would on average have been better to have invested in corporates with women on their management boards than in those without” (2012).

**The report Mind the Gap: Board Gender Diversity, 2012** looks at the current state of gender diversity in the boardroom in 12 markets and examined not only the proportion of women on boards, but also director independence, tenure and other aspects of female representation in leadership positions and as per the Global Gender Gap Index 2012 report, India ranks 105 out of the 135 countries that were part of the study. While we may have gone up as compared to last year, it is alarming to see that we’ve dipped far below in the last 6 years, with a rank of 98 in 2006. The Percentage of women employees as compared to china, Hong Kong, Japan, Malaysia, and Singapore, but has more worryingly the highest dropout rate between junior and midlevel positions (48percent). Between Middle and Senior level positions too it is at 37 percent (Source: The Hindu dated April 8th, 2012.)

Gender Diversity Benchmark for Asia 2011’s report puts the number of ‘Dropout Rate’ revealed that corporate India not only has the lowest percentage of women employees but also highest Dropout Ratio between Middle and Senior Level.

Kurup et al. (2011) as a part of a research initiative to examine women power in Corporate India at IIM, Bangalore developed a database of women power on the boards of 166 Indian companies revealed that the number of directorship held by women increased from 29 in 1995 to 67 in 2007. The percentage of women directorship in the
total number of directorships for the period 1995-2007 showed an increasing positive trend from Agarwal (2009) did a case analysis based on a survey of 250 IT professionals of equal representation of men and women on the factors hindering women’s career progress and found that there were no discriminatory policies prevailing in the IT Sector.


Women account for just about 14 percent of the top brass at companies in India, as against 21 percent across the world, a global survey report said today. What still seems promising is that there has been a considerable growth of women occupying senior managerial positions from 9 percent last year as per the findings of Grant Thornton’s International Business Report. Majumdhar V. (2007) Women from equality to empowerment, Oxford University Press suggests that the companies where women have assumed senior and top managerial positions are the ones who have performed best as compared to other companies.

The Bottom Line: Corporate performance and women’s representations on Boards Catalyst (2007) study reveals women leaders performance can be correlated with greater financial performance. Fortune 500 companies with the highest representation of women board directors attained significantly higher average financial performance than those with the lowest representation of women board directors (Catalyst Report, 2009).
Accenture undertook research for one step ahead of 2011: A new horizon for working women to understand the level of readiness to face business challenges of 4100 professionals from 17 countries revealed that women were better ready to face the challenges and were adept at key skills and areas as compared to men. The positive influence of women is thought to extend into management and strategy. For example, mixed gender boards are thought to show better attention to audit and risk oversight and control.

Women on Boards: Not Just the Right Thing... But the “Bright” Thing – Conference Board of Canada (2002) McKinsey and Company (2007) found that organizational Excellence as measured by a set of criteria including Leadership, direction, accountability, coordination etc correlated with gender diversity. The study examined the organisational criterion having high score with more than three women occupying top echelons in the company as compared to other companies where women at the top were missing.

2.1 Women in IT Industries:

“Gender Diversity Benchmark for Asia 2011” reports points out the number of ‘dropout rate’. The survey revealed that corporate India not only has the lowest percentage of female employee as compared to China, Hong Kong, Japan, Malaysia and Singapore, but more worryingly, has the highest dropout rate between junior and mid-level positions (48percent). Between middle- and senior-level positions too, this is at 37 percent.(Cited in The Hindu, April 8, 2012).

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of directorship held by women increased from 29 in 1995 to 67 in 2007. The percentage of women directorship in the total number of directorships for the period 1995 to 2007 showed an increasing positive trend – from 1.66% in 1995 to 3.63% in 2007.

Banerji et al. (2010) compared the percentage of women directorships on the boards of major companies with those of a few countries for which some data is available. According to this report, India is the lowest with 5.4 percent of the directorships being held by women. By contrast, Canada (15 percent), USA (14.5 percent), the U.K. (12.2 percent), Hong Kong (8.9 percent) and Australia (8.3 percent) all have higher percentages.

NASSCOM-Mercer (2009) reports that the qualities of women suits best to the industry and reveals some of the inherent leadership and multitasking ability of women. The report mentions the rewards of addressing gender inclusivity in an enterprise, which include: brand building, higher employee productivity and profits, enhanced organization’s creativity, productivity and ability to manage change, reduced attrition, professional orientation in the organization, customer satisfaction/creating value for shareholders and ethical business practices.

Shanker (2008) in his study on gender relations in IT companies in Bangalore found that there is an increasing trend of women employees joining the IT sector is due to the various influencing factors like Lucrative job options, higher salary, flexible work options. He attributes that greater representation of women in the workforce to comparatively high salaries, easy international mobility and gender neutral policy based on knowledge-centric skills possession.

Upadhya and Vasavi (2006a) study highlights the profile of the IT workforce and the process through which it is produced and recruited in Bangalore and in three
countries in Europe. The findings indicated that the workforce was less heterogeneous than in commonly assumed. The regional diversity in the IT workforce in Bangalore was addressed and the report disclosed that though the proportion of women in the software industry has been growing steadily over time, and a limited number of women IT entrepreneurs and managers also have a presence, they are still under-represented constituting about 24 percent of the IT workforce. Further the report also shared insights that women are under represented at the middle and senior job levels but are more concentrated in the entry and junior levels.

The Ministry of Communications and Information Technology (MCIT) (2003:3) cited in Patel & Parmentier (2005) has noted the comprehensive efforts put forth by the Indian IT sector in turning India into a technologically advanced nation is much attributed to the growth of IT sector. But it indicated that its centrality in the country’s overall development planning, including issues of the digital divide and gender inequalities. It was reported that 79 percent of software professionals in India are men.

Varma (2002a) asserts that IT sector still remains a preferred choice among many fresh technology graduates for obvious reasons of clear career choices, best salary offered in the industry, rewarding career, international exposure and experience and perfect work ambience and above all intellectually stimulating work opportunities.

Bajpai & Sachs (2000), in their survey among the women IT professionals in Kerala has identified that the employment rates for women in the surveyed software firms (40 percent) were high, relative to software industry averages in India.

2.2 Gender Inclusivity:

AMCHAM and FLEXI (2013) conducted a study on gender diversity among American multinationals in India to understand the gender diversity landscape of
American organizations operating in India. A total number of 51 organizations participated in the study. The study found the workforce participation rate of women in the companies that took part in the study was at 26 percent. There was a sharp dip at the middle management level at 22 percent from the entry level which was at 31 percent. Senior management representation of women was an average of 15 percent. IT companies had 27 percent of women workforce participation and experienced 33 percent attrition of women employees.

Agarwal (2009) analysed several cases of IT companies based on a survey of 250 IT software professionals with equal share of male and female employees representation to determine the factors contributing in career growth and found that there was no discriminatory practices existing in the IT sector. Career mobility was determined on the basis of one’s performance at the workplace, and also found that women were affected by gender and lifecycle factors. The study emphasised that the need of the hour is a strong support systems for women to enable them to perform their best.


Tank and Khuperkar (2009) explored different perspectives to gender equality in India, such as mindset, policies and gender equality drawing similarities and highlighted changes in the working environment in private sector and public sector firms. The overall growth of the society can be enabled only if there is equal emphasis paid to gender equality policies and what the society stands to lose by not providing equal opportunity to everyone and several roadblocks were identified to put them in place.
Damle (2009) studied the detrimental impact that the police women in Maharashtra police faced by conducting a survey to determine the impact of gender inclusivity programmes and found that it negatively affected their performance.

Misra and Gupta (2009) assessed the complexities involved working with many stakeholders, in order for corporate India to be more holistic and transform itself several issues need to be addressed in the context of gender inclusivity.

Nag (2009) studied the gender sensitive management experiences in a high-tech organization in India. The rewards and the challenges faced by a team of managers in the organization, represented by the CEO of the organizations were identified. It is believed that the CEO’s past experiences enabled them to emphasise the need and importance of Gender Inclusivity. There was positive response both from male and female managers in this context.

Veeraraghavan (2009) evaluated the impact of gender inclusivity programmes in IBM, India and ascertained that distinct organizational, financial and pipeline developments have attracted to include more women in the workforce. Her study concludes that in large and major players such as IBM, in order to diversity to be impactful and truly experienced as a business imperative at the ground level, there needs to be greater penetration at all levels of organisation hierarchy so that managers and employees can work together.

Mehra (2007) argued that organisational policies aimed at developing women had failed to integrate women into the economic development process and that there had been higher investments in women’s reproductive rather than productive roles, such as funding for population programmes versus income-generating programmes. He criticized that while women are capable of getting themselves graduated, the existing social
outlooks may not necessarily provide them with the needed platform opportunities to make the utmost use of the education and skill sets they have acquired to participate in labour workforce.

Patel & Parmentier (2005), in their study on the traditional gender roles in the IT sector discussed the issues of gender equality in the IT industry. They emphasize that the Western paradigm of development and modernization suggests that as rational processes and bureaucratic functions overtake traditional forms of social organization, gender inequities will disappear, along with other forms of social closure based on differentiation such as religion and ethnicity. They maintain that the participation of women in IT continues to be influenced by traditional gender roles. He argues that in spite of attaining some of the highest levels of education in Indian society, such women are still associated with traits that include being secondary, invisible, reproductive and unpaid – in general, they are assumed to take the role of a follower.

Kelkar et al. (2002), revealed that though there are socially sanctioned gender inequalities in the Indian market, women prefer to work outside the home in an attempt to improve their social position in turn breaking free from family-based dependence. They observed that women working in this sector become socially mobile to live in other cities away from their male relatives and families for the sake of their jobs. They no longer constrain themselves to opt for jobs which are near to their home town alone. They revealed that there are many women working as software developers, architects, tech leads, consultants or project managers, whereas as there still remains a major chunk of women at the lower rung of the ladder such as testers, programmers or quality assurances and other such low-end jobs. Women are paid less compared to their higher level male counterparts and consequently they have fewer channels of growth and very few women make it to the top echelons of managerial jobs.
Ahuja (2002) sums up that statistics do not bear out the initial optimism shown regarding women’s participation in the field of IT. Since IT is a relatively young field, it had initially been assumed that impediments to the advancement of women long existent in other fields, such as an established “old boys’ network”, a large pool of more qualified and experienced male professionals, the lack of female role models and mentors and established discriminatory practices would not present the same barriers to women.

Castells (2000) argues that the prevailing educational and professional barriers experienced by female engineers in India, combined with a quantitative analysis of developments in technology sectors indicated a strong relation to gender-based socio-economic factors, but however the IT sector in India is still far the reality of resolving issues concerning gender.

2.3 Upward Mobility:

Rajesh and Ekambaram (2013) studied the career trajectories of Indian women professionals in the IT industry with a cross domain sample of IT professionals from across India viz. Delhi, Mumbai, Kolkata, Chennai, Hyderabad, Bengaluru, Gurgaon and Pune. The study revealed that women’s career path were often not free from hurdles and jerks. They identified many factors such as cultural, social structural, personal and role-specific which have a bearing on women’s path of career movement. They suggested that if the women talent has to be harnessed then the employers need to be creating exclusive platforms which are women friendly.

NASSCOM-Mercer report (2009) emphasised that ‘Glass Ceiling’ still prevails in the Indian IT industries as most women stagnate at the junior and the middle levels of their career alongside factors like women still feel less competent and experience personally the career break as a trend which hold them back to re-enter the labour market.
Krishnaveni & Deepa (2009) study focussed on efforts needed by all the stakeholders at individual, societal and organisational level to combat the emotional challenges experienced by the women in IT and IT enabled services industries were analysed.

Adya (2008) have brought out the significant impact that social, cultural and individual factors have a bearing on the career experiences of women in Information Technology sector in South Asia and United states.

Ahuja (2002 in their study revealed the societal and structural constraints faced by women in the information technology industries.

2.4 Challenges.

The unique characteristic features of the information technology industry in India and the nature of work pose some unique challenges for professionals in the Industry Ethiraj et al. (2005)

Basu et al. (2013) evaluated the gender differential attitude among professionals of India IT companies around Delhi. The study analyzed the most debated issues in the IT sector in India that how have the gender differential attitudes persisted in the technology sector which is the most advanced sector. It was found that though women have capabilities, well-developed skills as well education, their opportunities are constrained by informal institutions such as caring being solely the women’s responsibility, limited support system/infrastructure, biased laws, rules and regulations and social attitude. The study confirmed the need to eradicate gender malice from the society and the organization for HR Management in highly skilled professions like IT sector.
Studies revealed that women are not as much interested in negotiating salaries, perks and bonuses, are not very keen in enhancing their niche skills; are not eager to hop jobs rather find it extremely uneasy to move themselves out of the comfort zones and do not have information professional networks as they are not able to put in efforts after office hours to build the same. Domestic responsibilities, distance from home to place of work and various other reasons have been a limiting factors that have contributed to the limiting career. (Rajesh & Ekambaram 2013: 87).

The familial influence appeared as a significant factor in life choices on work and family for all women. Bhattacharyya & Nath (2011) criticise that the ‘achievement’ by women is selective. They comment that women employees in IT companies in India are in transition with emancipator powers in public sphere but not in private sphere.

Valk & Srinivasan (2011) attempted to analyse as to how influential have the work and family obligations have been influencing the work-family balance of Indian women IT professionals. The study was based on an exploratory qualitative study of 13 women IT professionals in the software sector in Bangalore which revealed six major themes: familiar influences on life choices; multi-role responsibilities and attempts to negotiate them; self and professional identity; work-life challenges and coping strategies; organizational policies and practices and social support.

Mohan and Ashok (2011) explored if there was any correlation between the age and experience on stress and depression and the relationship between stress and depression among the women information technology (IT) professionals in Bangalore, Karnataka with a sample of 250 women software professionals and found out that 85 percent of the respondents experience medium level of depression and also suggested the age and experience significantly influence the overall stress and depression experienced by the employees.
Teagarden et al. (2008) draw attention to the pressures of longer hours of work in IT industries. This pressure, according to the authors, is a result of two factors. First, the differing time zones in the west, US and Europe, compels employees to work at night in India. Furthermore, the concept of a 24-hour knowledge factory – the evolution of 24-7-365 help desk support compels the engineers to hold meetings with their team members, where team members need to adopt temporal flexibility. Second is the high pressure of project-based work with unpredictable workloads and the timely requirement to complete the given projects.

Adya (2008) studied the differing experiences and perceptions between South Asian and American women in the IT sector. He draws attention to the aspect that in Indian society, where a woman’s role in relation to herself, her family and society is being redefined, the new expanded role of women with a strong occupational identity is putting a lot of pressure on women’s time and energy. The author asserts that balancing work and also the home front poses to be a big challenge for women employed in IT industries.

Fuller and Narasimhan (2007) identifies that parents of these young women graduates experiencing heightened anxiety levels because women are alleged for their sexual misconduct and because they also need to put in late hours of work shouldering with men in the IT industry they also have to remain in the boundaries of our society which is stereotyped.

According to Upadhya (2006), the foremost factor hindering the career growth for women in IT sector is the requirement of women having to attend short/long/on-site work commitments. He points out unmarried women are preferred over the married ones for obvious reasons and as unmarried women find difficulty to adjust with male colleagues abroad while married women prefer not to take up these assignments due to
domestic and societal obligations. Thus non-availing of assignments or continuous refusal therefore ultimately affects career growth of women and costs their promotion prospects.

Research paper submitted at the South Asia Pre-WSIS Seminar (2005), while approving the apparent employee-friendly and gender-neutral working environment, it criticised that the current working environment and existing managerial structure, systems, policies, procedures pose greater obstacles to women than as compared to men. Women also experience hardship in terms of career entry, to be retained in the organisation, and growth prospectus also poses its own challenges. High work pressures, meeting deadlines, frequent visits out of country etc compelled women either getting dropped out or stagnating in the lower level jobs impeding their career growth.

Rajalakshmi (2003) also corroborates that the industry and the nature of work is so demanding for women as they enter the prime age for marriage between 23-28 years when most of them experience either being married or motherhood which gets very demanding their work life.

Arun & Arun (2002) found no immediate gender differences in relation to technology, language or team work practices in IT industries, but women were found to be less likely to perceive skill development opportunities within their work place than men. However, there were clear differences within the notions of working flexibility and working under pressure, since women, burdened with traditional expectations of particular roles in the family and in society, meeting the job expectations was harder than it was for men.

Agarwal (2000) puts forward certain policies which may help to retain women and include more women in the IT industry. She proposes that policies should be
undertaken towards gender equity in the IT industry such as, flexi timings and work at home should be encouraged; policies should be made to subsidise childcare; provision of childcare support as day-care centres and crèches; and transport facilities; provision for re-entry.

In a study done by Kapoor et al. (1999), married women employees reported that they face difficulties in maintaining a balance between work and family and their careers suffer because of family responsibility.

2.5 Women Empowerment in IT Industry: Global and Indian Scenario.

(Fuller & Narasimhan, 2007) Literature on female software workers clearly demonstrates that IT women professionals experience a sense of empowerment from their work.

Kelkar & Nathan (2002) have noted that the effects of women’s entry into the IT sector have enhanced their earning potentiality thereby enlarging the bargaining power in the households as they experience to have better status on the home front. They further assert that individualisation capacities are enhanced as the women employees need to make decisions very often on their own and that too instantly, thus, offering greater scope for boosting up their morale.

Chengappa and Goyal (2002) in their article in India Today wrote that both men and women can derive similar work benefits as long as they work in tandem with each other.

Arora et al. (2001) referred that 57 percent firms reported that the availability of needed manpower is the major concern experienced by these companies and next follows issues concerning employee attrition (44 percent), market access (42 percent) and lack of government support (10 percent).
2.5 (A) Global and Indian Scenario:

A number of studies have examined the detrimental effects of *glass ceiling* that hinders women’s career growth prospects be it moving to the next level of career or advancement in their salaries. *(Harris & Wilkinson 2004; Kaminski & Reilly, 2004; Sumner & Niederman, 2003).*

*Ashcraft and Blithe (2010)* conducted a study to examine the key factors which come in the way of women’s career progress and adequate mechanism to address the same were examined. The study found that the percentage of computing occupations held by women has been declining since 1991; in 2009, women made up only 25 percent of the IT workforce; fifty-six percent of women in technology companies leave their organizations at the mid-level point (10-20 years) in their careers. It was reported that wide variation in the salary gap exists by occupation; the salary gap between women and men declines slightly in the first 5 years of their careers, then spikes for the next 5-7 years. The report disclose that women hold only 10 percent of corporate officer positions and make up 11 percent of board of directors in Fortune 500 technology companies.

*Diezmann and Grieshaber (2010)* studied the real scenario of gender equality in the Philippines through secondary data. The purpose was to awaken the public that the equal rate of gender economic participation in the society does not equate to gender equality and that the Philippines is still under the shadow of male domination despite of the claim that the Philippines ranked 8th in the 2011 Global Gender Gap Report. The researchers challenged the idea that the gender equality should be analysed based on the cultural transition and changes in the structural context of the community to reveal the authentic condition of gender equality in a country. They concluded that gender equality
and culture must be intertwined in order to trace and unravel the true morphological scenario of a society.

Report by **Bureau of Labour (2009)** also indicated that the percentage of computing occupations held by women has been declining since 1991, when it reached a high of 36 percent. Meanwhile, the percentage of jobs held by women in almost all other sciences has increased significantly. In 2009, women made up only 25 percent of the IT workforce, the findings also showed variation by race/ethnicity of women’s representation.

**Warren (2009),** in his assessment of talent management systems describe that gender bias permeates the promotion and performance review process. He found that almost half (46%) of technical women reported that gender bias influences performance evaluations. Similarly, one in four technical women reported that women were often seen as intrinsically less capable than men in the IT companies.

**Herring (2009)** argues that the value-in-diversity perspective, in a diverse workforce, relative to a homogeneous one, is generally beneficial for business, including but not limited to corporate profits and earnings. The results support seven hypotheses: racial diversity is associated with increased sales revenue, more customers, greater market share, and greater relative profits. Gender diversity is associated with increased sales revenue, more customers and greater relative profits.

**Ernst and Young (2009)** reports that researchers have demonstrated that groups with greater diversity tend to perform better than homogeneous ones, even if the members of the homogeneous groups are more capable. In fact, the diversity of the group’s members as much as their ability and brainpower, it not more. They concluded
that diverse group almost always outperforms the group of the best by a substantial margin.

**McKinsey & Company research** on the relationship between organization and financial performance and on the number of women managers at companies suggests that companies with higher numbers of women at senior levels are also companies with **better organizational and financial performance**. Specifically, this research showed that companies around the world with the highest scores on nine important dimensions of organization—from leadership and direction to accountability and motivation—are likely to have **higher operating margins** and **market capitalization** than their lower-ranked counterparts.

**Michel Ferrary (2008)** has also found a direct correlation between the proportion of women in top management at a corporation and its stock price during a time of general economic downturn. He found that, “more the women in a company’s management, the less the share price fell in 2008.” Ferrary suggests that women managers tend to balance the risk-taking style of their male colleagues, a trait especially important in protecting profits in bad times.

**Hewlett et al. (2008),** in their study with the women technologists on Wall Street report that technical women identify isolation and the lack of appropriate mentorship or sponsorship as one of the key barriers to their retention and advancement. In the same study 40 percent of technical women reported lacking role models, while nearly half reported lacking mentors and 84 percent reported lacking sponsors or someone who would help make their accomplishments visible throughout the organization.

**Isolation, Hewlett et al. (2008a)** argue, often translates to attrition. He observe that “people with mentors receive more promotions and higher compensation and tend to
have higher job satisfaction and career commitment then those without such advisors”. The results indicated that women who are isolated are not only less committed, but are 13% more likely than women who do not report isolation to also report being unsatisfied with their job. Women who are not satisfied with their jobs are 22 times more likely to leave than women who are satisfied. Likewise, women without mentors or sponsors are also more likely to leave their companies.

**Sumner (2008)** investigated the factors that brought about conflicting views and opinions by IT professionals that impacted their work-life balance including factors like the gender, marital status, category of the job they were employed in, work experience and the prevailing work environment have their bearing in dealing with work-family issues.

In another study conducted by **Baron & Hannan, 2007** for the start up companies just 4 percent of the women employees working in the IT industry’s occupied the senior managerial positions involving jobs which are research oriented and Technology driven. The Non-technical departments accounted for fourteen percent of the senior management positions.

**Armstrong et al. (2007)** analysed the relationship between advancement and work-family conflict. They argue that the project-orientation of the IT industry with rapid technology changes that make skills quickly obsolete requires software professionals to frequently re-skill. Consequently, software professionals need to put in extra training and educational hours to keep up with these changes, which could not be met by women IT professionals.

**Ali (2006)** argues that women need to be constant learner if they are aspiring for better job prospects and challenging roles. With the constant innovation happening in
this arena, it is not enough to be a good worker in the IT industry; one must keep updating technological skills, which Indian women IT employees lag behind due to their social and family constraints. No other industry sees such significant changes in technology from time to time as in case of the Information Industry.

Kravitz (2005) argues that while diversity is a source of competitive advantage, firms need to effectively manage diversity in order to reap the benefits. Team diversity has been appropriately labelled a “two-sided sword” that can backfire and actually harm team performance by leading to low group integration and lower work satisfaction.

Department of Trade and Industry (DTI) (2005) made a research on how to retain women in the IT industry. The study concluded that there needs to be more understanding from management, especially where family commitments are concerned; there has to be equality and fairness in areas such as pay, flexible working, distribution of project work and promotions; there should be more opportunities for people to work part-time, without this being detrimental to their career and women need to feel included in what is commonly a male dominated industry.

Study by Equalitec (2005) project that addressed gender inequality in the Information and Technology, Electronics and Communication (ITEC) assisted to roll out certain policies and initiatives which if implemented would enhance gender diversity at workplace.

According to the survey by Information Technology Association of America (2005), cited by Simard (2007), the number of technical women at the top of corporate ladders is low by all estimates. The number of women in senior management positions in IT sector around 3 to 5 percent and contrary to popular belief, the numbers of women in IT has not been growing over time. To the contrary, the proportion of women in
technology positions in Industry in the US has declined from 41% in 1996 to 32% in 2004.

Arflen et al. (2004) dispute that ‘glass ceiling’ in organizations, as glass walls restrict women’s career advancement in terms of moving to the next level of their corporate hierarchy and senior positions. Lack of informal networks, prejudiced male preconceptions and stereotyping of women cause greater limitations for women.

Catalyst (2004) conducted a study determining the relationship between the gender diversity at the top management and business performance of the top fortune500 companies and the results revealed that there was greater correlation with top management emphasising gender diversity had 35 percent higher returns on equity and 34 percent higher returns on shareholder’s equity as compared to other firms.

Frink et al. (2003) suggest an inverted U-shaped relationship between gender composition and performance that may vary by industry. Relying on several national datasets, they found that increases in the representation of women are related to perceptual measures of productivity per employee and profitability only up to the point when an equal proportion of jobs are held by men and women – no higher.

Webster (2002) points out that family structures and roles performed by women varies across nations but overall, women continue to be the primary provider for domestic and childcare responsibilities. The presence of large number of women in the workforce, such as in IT industries and their drive for careers have resulted in increasing attention to work-family balance issues.

Walby and Olsen (2002), while pointing out that even though most software companies are now creating the needed platform for women employees, women friendly policies, procedures, extended maternity and paternity leaves, crèche facilities, maternity
leaves over and above the statutory minimum, the fact that cannot be overruled remains that IT is still male dominated and the division of work being allocated accordingly.

Varma (2002) cited the findings of the National Science Foundation conducted in 2000 that though women make up 51 percent of the population and 46 percent of the U.S. labour force, only 28 percent of computer and mathematical scientists are women.

Rothboeck, et al. (2001) identified several obstacles to career growth for women among which balance work life being the most prominent one which found to be correlated with the culture existing with the software industry. According to the study, due to societal obligations and family commitments women are unable to pool in same working hours as compared to men.

Moor (2000) studied the poor participation rate of women in the IT workforce and the relationship between job satisfaction and gender impacts inclusivity.

According to Fountain (2000) women are more likely to experience a break in their career due to marriage, child birth while choosing to work for short durations and not accepting long term and outbound assignments shunning themselves from high potential careers and loosing away the critical hour and job segment. She also stated that the untimely shifts and long working hours have been a major detrimental factors impeding their career growth.

Lori Anne Wardi (1999) draws attention to the factors like women employees not being mentored and lack of senior women sharing their experiences as a critical factor hindering the growth of women employees. Most women IT professionals lack networking opportunities with senior members and had if the same would have been provided they would have performed better.
In a survey by Brett & Stroh (1999) on information systems (IS), demographics, salaries and job satisfaction in the US and the UK reveal that the ‘glass ceiling’ pushed women in middle level jobs in the IS department. The survey confirmed the existence of a salary gap by gender.

According to Wardi and Welbourne (1998) report on hiring and retaining female information Technology professions, women are significantly under-represented within the IT field. The report states that women are most highly represented in the computer programming field, where they comprise an estimated 31 percent of the workforce and the least well-represented in the higher level computer engineering field, where they comprise a meagre 8 percent of the workforce.

Wajcman (1998) referred to the invisible barriers obstructing women’s promotion opportunities, impeding upward mobility of women in IT industries, beyond the middle levels of management. She further asserted ‘glass ceilings’ could be determined at the structural level/formal level, i.e. at the level of organizational practices or at symbolic level i.e. informal barriers, i.e. in facilities, signs and actions by which gender differences are performed and made visible.

Ezra and Deckman (1996) found that organizational and supervisor understanding of family duties are positively related to satisfaction with the balance between work and family life. Workplace support via an organizational approach involves the implementation of family friendly policies, which are associated with satisfaction with the work-family balance.

DeBare (1996) discussed the gender inclusivity in his report. He drew attention to the fact that women need to work in tandem with men if they have to rise to the same position in the hierarchy to break the glass ceiling effect. He observed that there are
issues concerning long hours of work and also the level of content as far as job is concerned is low, imbalanced salary scales, emotional distress from discrimination and prejudice, physical ache from the long working hours before the computer, division of labour within the home (child-rearing), essentialist notions of women’s roles, informal networks, sexism, lack of role models and support.

Özbay (1995) examined the attitudes toward women managers in a sample of Turkish university students. The study investigated if gender, being closed to graduate, work experience and work experience with a woman manager affected attitudes toward women managers among university students. The results demonstrated that male participants did not seem to be displaying positive attitude towards the women employees.

Cox and Blake (1991) argued that heterogeneous organizations that valued diversity would have higher-quality group decision making, greater creativity and innovation, more organizational flexibility due to the possession of divergent thinking, greater ability to attract and retain the best talent and greater marketing capability.

Pfeffer (1983) asserts that diversity is beneficial because it leads to cognitive diversity and task conflict, that is, that a variety of opinions, backgrounds and thinking styles and their integration into the solution are what contributes to better outcomes. Therefore, he argues that it is likely that the explanatory variable that links gender diversity in top management position and firm financial performance is due to the cognitive diversity benefits brought by gender diversity.

Simard et al. (Undated) studied the obstacles and solutions for mid-level women in technology. The results revealed that midlevel career is a major breaking point for many women and this middle level includes employees with reasonable years of work
experience but may not have assumed senior leadership positions in the organisations sometimes even with 10-15 years of experience.

**Two separate studies conducted by catalyst** explored the link between gender diversity at the top (on both boards and in senior management) and company financial performance in Fortune 500 companies revealed the following findings:

- In one study, a group of companies were divided into quartiles based on the percentage of women on their boards and their performance compared on the basis of return on equity, return on sales and return on invested capital. Across five of the seven industries studied, the analysis revealed that “top-quartile” companies outperformed “bottom-quartile” companies on all three financial indicators by 42 percent to 66 percent.

- In the other study, the group of companies with more women on the top positions demonstrated better financial results as compared to those organizations with less women on boards. This finding holds for both financial measures analyzed: Return on Equity, which was 35.1 percent higher and **shareholder’s return** which was 34 percent higher. Financial performance was also consistent across five industries analyzed in that the group of companies with the highest women’s representation on their top management teams experienced a higher ROE than companies with the lowest women’s representation.

Gender inequalities have been recognized inefficient and costly to sustainable economic growth and full social development of a country (Elson, Diane 1999; Klasen, 1999; Hewitt and Mukhopadhyay, 2002). As compared to men, women tend to have a more deprived and subordinate status, in terms of access to resources, enjoyment of rights and freedoms. That is, women along with men should have to be an integral part of
national development policies, strategies and programmes. In 1979, the U.N. General Assembly all the necessary evils surrounding women’s discrimination. This has profound implications for women’s capability to conduct their autonomous lives in the society. Reduction in gender inequality tends to increase agriculture yields (Saito and Spurling, 1992).

It has been argued that Gender equality can benefit the economy through efficiency gains. From the efficiency consideration, what is important is the social rate of return of investment in women, and in case, this can be greater than the corresponding rate for men. That is why; to empower the women is now become a basic goal of most of the countries. There are various types of gender inequalities exist in India like in the sector of education, health, decision-making and political participation etc. The gender inequalities in access to education, health care and nutrition lead to capability deprivation.

**Conclusion.**

In this chapter, several literature reviews have been reviewed, a number of studies on women in the IT industry in India and abroad as well, focusing on women’s level of participation in the IT industry; their position in the organizational hierarchy compared to men; promotional opportunities; women-friendly organizational policies; challenges of women IT professionals; reasons for attrition of women IT professionals. With this orientation the present study attempts to evaluate the inclusivity and diversity practices of IT industries in Bangalore city.