

Indian Women in IT Industries

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ABSTRACT--- *With the emergence of new economy, the working environment for women in several sectors in developing nations has changed significantly. IT is one of such sector where working conditions for women are better than any other sector. Working conditions at work place are very important for persistence of career, especially for the women. Working conditions are measured in terms of salary, job satisfaction, gender policy, working hours, flexible working hours, work load and work culture and so on. Better working conditions may support the women to continue their career and otherwise may discourage them to continue in their career. Therefore, working conditions at work place has substantial significance for the women. This study is to understand the working condition of Indian women in IT industry.*

Keywords— Women in IT industries, working conditions of women in IT industry, work culture for women in IT industry, job satisfaction for women in IT industry

1. INTRODUCTION

Working conditions at work place are very important for persistence of career, especially for the women. Working conditions are measured in terms salary, job satisfaction, gender policy, working hours, flexible working hours, work load and work culture and so on. Better working conditions may support the women to continue their career and otherwise may discourage them to continue in their career. Therefore, working conditions at work place has substantial significance for the women working in IT industry. This study explores the working conditions at work place. Working conditions at work place, especially women, have an important role to play in the career of a woman. A conducive environment may encourage them to performs better and feel safe. In contrast, unfavorable environment may discourage them to do work efficiently. This is the responsibility of the organisation in which the respective women are employed that they make the working conditions comfortable for the women. So that they can give their best and can grow in their career. Working conditions for the women in IT industries are summarized in the subsequent paragraphs from the survey organized for this purpose.

2. OBJECTIVES

The main objective of the present paper is to understand the working condition of Indian women in IT industry at different position of organisation. Also to study as to how far these women are involved in the decision making process of their organisations.

3. REVIEW OF LITERATURE

Gothoskar, (2000) made an attempt to analyze the problem arising in the new developed sector of teleworking and their occupational gender division of labour in Mumbai. The study found that the share of service sector in urban employment has risen, particularly with respect to the female workforce. Telework related entrepreneurship or skills are definitely one way in which it is possible if women are provided with the requisite infrastructure to do it. It provides the 'stress-free' environment. Women will be able to balance their multiple roles without the sort of jugglery of time and energy they have to do at present.

Shankar, (2008) made an attempt to analyze the 'new identity' of Indian women in Information and Communication Technology Industries. The study examined the employment of women in this new economic sector and its impact on their domestic lives and social development. The study showed that women spend less time networking informally with their colleagues and on the other side men expressed that it's a strategy to enhance their career. This study concluded that women employment in Information and Communication Technology Industries in India are transitory, with emancipatory powers in public sphere but not in the private sphere.

Webster, (2008) made an attempt to analyze the reasons for the under-representation of women working in Information Technology profession. The study considered why, once working in Information Technology, women does

not progress on an equal footing with their male counterparts. This study shows that most of the women entered in Information Technology profession with a degree, but not necessarily a degree closely related to their employment. Information Technology's work is predominantly done full time and is more and highly pressurized. It provides the place for women to work. Pay and autonomy are high with different opportunities: a technical career path and a management career path. Information Technology sector has provided a positive environment for improving women representation in this sector. A major obstacle in Information Technology profession is the working time arrangements and culture of profession. He concluded that Information Technology sector provides the excessive job to women, but due to the gender inequalities they are still few in top positions.

Theerthalingam, (2008) discussed the gender issues in Information and Communication Technology focusing on access issues, socio-cultural barriers and gender gap in Information and Communication Technology's. The study showed that the gender-divide with digital divide can be seen in the lower numbers of women users of Information and Communication Technology's as compared to men. Women have reduced access to Information and Communication Technology's due to number of barriers like illiteracy, unfamiliarity, dominant language of the internet, absence of training in computer skill, domestic responsibility. Due to lack of these skills more senior and high skilled jobs are taken by men. The study concluded that in Information and Communication Technology Industry women have enjoyed opportunities on a large scale that they never experienced in any other field of science and engineering.

Ahmed, et; al, (2010) discussed the social issues that are influenced by the involvement of women in Information and Communication Technology in Bangladesh. The study showed that women play a central role in family, community and socially but often remains invisible and unheard. Information and Communication Technology offered opportunities for direct, interactive communication even by those who have lack of skill, are illiterate, lack of mobility and have little self-confidence. Parents became more aware about Information and Communication Technology and are interested to send their daughter to study computer science for better prospects in life even if they have to pay a fortune for their child's education. The women operates their phone business while doing household chores or operating another business. Women role in family affairs, especially in decision making are no longer ignored. Even a poor, largely uneducated woman can master the skills and run a small business. Information Technology organizes and transfers their knowledge to outside communities that might benefit from it. The study concluded that our work can be a milestone for the policy makers to construct a national level platform for the future measurement of Information and Communication Technology's impact on women.

4. RESEARCH METHODOLOGY

This study is based on primary as well as secondary data. Delhi and NCR region has been identified as the area of study being the industrial hub of north India. For this purpose twenty IT companies from these areas were identified using sampling, with a total sample size of 400 women employees. These women are working on different positions in their respective organizations. The sample selection is purely on random basis without any bias. The information regarding the respondents was collected by interviewing them personally by using a pretested questionnaire. Chi-square test is used for the qualitative analysis and for association of attributes. Chi-square is a statistical test commonly used to compare observed data with data we would expect to obtain according to a specific hypothesis. Percentages are being used for presentation of findings and easy understanding of comparative data.

5. SURVEY RESULTS

5.1 Working conditions at Office and Work Culture

The performance of women working in IT industry, given the nature of IT industry, has nothing to do with the gender. However, working conditions provided to them at work place / office has considerable influence on their performance. Moreover, work culture at the work place do encourage the women do better especially in a competitive environment with other colleagues at office. Working conditions at office for women have been explored in the survey in terms of gender sensitiveness, gender policy and so on. Results so obtained are presented in table 1.1

Table-1.1: Working Conditions at Office for Women

| Condition | Yes | No | Total |
|-----------------------------------------------|-----------|-------------|-----------|
| Whether Colleagues are Gender Sensitive | 224 (56) | 176 (44) | 400 (100) |
| Company having any Gender Policy | 400 (100) | 0 (0.0) | 400 (100) |
| Expectation of Addition Facility from Company | 31 (7.75) | 369 (92.25) | 400 (100) |

Note:Figures in parentheses are percentages

Table 1.1 depicts that when the women were exposed to the direct question regarding gender sensitiveness of colleagues, 56 percent of the sampled women answered in affirmative. Rest of them (44 percent) responded negatively. This is a matter of serious concern because this industry which is considered as gender neutral. They may not be able to perform efficiently in a gender sensitive environment. Therefore, the organizations should be conscious enough to reduce the impact of this particular aspect. Organizations are legally bound to have a gender policy and undoubtedly all the women have reported that their organisation have gender policy. First question in the table-1.1 reflects the mindset of the society that is why despite having gender policy in the organisation, gender sensitive environment is still prevalent.

Women want to work in an environment of non-discrimination and they do not ask for additional facility from their organisation. The 92.25 sampled women have reported that they do not expect any additional facility from their company (table-1.1).

As already stated, that work culture at organisation has considerable bearing on the performance of the women. IT industry has work culture and everybody wants to work in disciplined manner and grow at work place.

Table-1.2: Satisfied with the Work Culture at Organisation

| Yes | No | Total |
|----------|---------|-----------|
| 372 (93) | 28 (07) | 400 (100) |

Note: Figures in parentheses are percentages

The satisfaction of the women working in IT industry regarding work culture has been reported in table 1.2. 93 percent of the sampled women have reported that they are satisfied with the work culture at the organisation. However, 7 percent of the women are not satisfied with the work culture. Hence, organizations should continuously explore the reports of the work culture and endeavor to improve in due course.

5.2 Working Hours and Designation

Number of actual working hours devoted at work place has importance for the women working in the organisation. Comfortable working hours at work place may help the women to make healthy balance between the work and family. Moreover, it is expected that hours of working increase with the higher position in the organisation. The information obtained in this context from the sampled women has been summarized in table 1.3.

Table-1.3: Cross Tabulation of Actual Work Hours Spent and Designation

| Actual Work Hours → Designation↓ | < 8 | 8 -10 | ≥ 10 | Total |
|------------------------------------------------------------------|-----|----------|---------|-----------|
| Software Engineer | 0 | 124 (31) | 0 | 124 (31) |
| Associate Software Engineer | 0 | 104 (26) | 32 (08) | 136 (34) |
| Senior Software Engineer | 0 | 112 (28) | 0 | 112 (28) |
| Technical Leader | 0 | 24 (06) | 4 (01) | 28 (07) |
| Total | 0 | 364 (91) | 36 (09) | 400 (100) |
| Chi Square Statistic (χ^2) = 59.35 (P=0.00) - Significant | | | | |

Note: figures in parentheses are percentages

Out of 400 women in the sample, 396 (91 percent) of them work for 8-10 hours and 36 (9 percent) devote more than 10 hours at work place. Moreover, it has been established that at the junior position working hours are almost fixed; as,

all the women at the ‘software engineer’ position work for 8-10 hours. However, this is not entirely true for the ‘associate software engineer’, as 8 percent of them devote more than 10 hours at work place. Hence, it can be inferred here that majority of the women employees work for 8-10 hours in the organisation (table-1.3).

To work out the relationship between the actual work hours spent and designation enjoyed by the employee, Chi-Square test of independence has been applied. The hypothesis of no relationship between working hours devoted and the designation has been rejected. For, the value of Chi Square Statistic (χ^2) is significant. Therefore, it can be concluded that designation and the actual work hours devoted are significantly associated.

5.3 Workload and Designation

Heavy workload at work place is considered as non-conducive working condition, especially for women. It has been established in the literature that heavy workload may reduce the efficiency of the employees. This may be more severe in IT industry and in case of women. Besides, it is a matter of research that if the heavy work load is there, whether the employees at the junior or the senior level are more loaded with work. It can be hypothesized here that when work load due to additional projects in the organisation increases, work load may shift to the junior employees. Seniors may give tough instructions. The organisation should be conscious enough that efficiency and creativity of the employees are not killed by putting them with heavy workload and unnecessarily make them stress prone. It may have considerable effect on their health in long period and promising career ahead may be shattered. The information received from the 400 women in this context has been tabulated in table 1.4.

A careful perusal of table 1.4 highlights that 78 percent of the sampled women have admitted that sometimes they have to face the situation of overload. This situation is prevalent for all the designations. Even, 34 of the 400 women employees have reported that they are always under overload situation. The situation in case of ‘associate software engineer’ is more explainable. As, employees in this category fall in all the categories of workload ‘never’, ‘always’ and ‘sometimes’. Why did this happen in this category? When she is able to shift her work on the junior, may feel less burdened otherwise overburdened. This can be deduced from here that the presence of over workload is there.

Table-1.4: Cross-Tabulation of Designation and Overloaded with Work

| Work Overload→ Designation↓ | Never | Always | Sometimes | Total |
|---------------------------------------------------------------|-----------|----------|-----------|-----------|
| Software Engineer | 0 | 0 | 124 (31) | 124 (31) |
| Associate Software Engineer | 54 (13.5) | 32 (08) | 50 (12.5) | 136 (34) |
| Senior Software Engineer | 0 | 0 | 112 (28) | 112 (28) |
| Technical Leader | 0 | 02 (0.5) | 26 (6.5) | 28 (7) |
| Total | 54 (13.5) | 34 (8.5) | 312 (78) | 400 (100) |
| Chi-Square (χ^2) Statistic = 206.2 (p=0), Significant | | | | |

Note: figures in parentheses are percentages

This data has further been exposed to establish the relationship between overloaded with work and designation. The non-parametric Chi Square Statistic (χ^2) turned out to be significant. Hence, it can be inferred that designation and work overloaded are highly associated.

5.4 Salary, Satisfaction and Job Satisfaction

Salary drawn from the services rendered to the organisation is an important component of working conditions at work place. Every employee aspires for the higher salary. Hence, higher salary is tantamount to be good working condition with some reservations. Besides, mere drawing of salary is not the only concern; employee may feel comfortable with the salary if she is able to fetch salary according to market environment and her capability. Even this aspect becomes the element of retention policy of the organisation. Apart from salary and satisfied with it, the job satisfaction is additional constituent of working conditions at work place. Job satisfaction introduces the element of contentment among the employees and even he/she may be satisfied with relatively less salary. Salary, satisfaction and job satisfaction should be in accordance with the qualification and designation. Under the sub theme of ‘salary, satisfaction and job satisfaction’, an attempt has been made to address these issues.

Table 1.5 reveals that 22 percent of the sampled women have out rightly rejected the satisfaction from the salary. However, rests of them are either fully satisfied or somewhat satisfied. Therefore, it can be concluded that majority of women working in IT industry are satisfied with their salary. In addition, IT industry pays handsome salary to its women employees. For, 77 percent of the sampled women have reported that they draw salary more than 8 lakh per annum.

It can be easily understood that higher salary may be associated with higher satisfaction. For this purpose, hypothesis of no relationship has been tested by using Chi-Square test of independence.

Table-1.5: Cross Tabulation of Salary and Satisfaction

| Satisfaction→ Salary (Per annum in Lacs)↓ | Fully Satisfied | Somewhat Satisfied | Not Satisfied | Total |
|-------------------------------------------------------------------|--------------------|-----------------------|------------------|-----------|
| 3.00 - 8.00 | 42 (10.5) | 18 (4.5) | 32 (08) | 92 (23) |
| 8.00-12.00 | 52 (13) | 53 (13.25) | 55 (13.75) | 160 (40) |
| 12.00-18.00 | 15 (3.75) | 84 (21) | 01(0.25) | 100 (25) |
| 18.00 & above | 31(7.75) | 17 (4.25) | 0 | 48 (12) |
| Total | 140 (35) | 172 (43) | 88 (22) | 400 (100) |
| Chi Square Statistic (χ^2) = 318.43 (P=0.00) - Significant | | | | |

Note: Figures in parentheses are percentages

The value of Chi Square Statistic (χ^2) turned out to be highly significant (table-1.5). Hence, it can be concluded that salary and satisfaction from salary are highly positively associated.

It cannot be denied that better qualified people deserved to be paid better salary. It has been recognized in the established literature that additional years in education are adequately reflects in earning capacity. It can be hypothesized here that IT industry is no exception and it also value its higher qualified employees in terms of salary. It has been explored in depth in table 1.6.

Table-1.6: Cross Tabulation of Salary and Qualification

| Salary (Per annum in Lacs)→ Qualification↓ | 3.0-8.0 | 8.0-12.0 | 12.0-18.0 | 18 & above | Total |
|-------------------------------------------------------------------|---------------|----------------|---------------|--------------|--------------|
| B.Tech | 67 (16.75) | 133 (33.25) | 05 (1.25) | 39 (9.75) | 244 (61) |
| M. Tech | 0 | 0 | 89 (22.25) | 03 (0.75) | 92 (23) |
| MBA/M Sc. (IT) | 10 (2.5) | 23 (5.75) | 02 (0.50) | 05 (1.25) | 44 (11) |
| MCA | 15 (3.75) | 04 (1.00) | 04 (1.00) | 01 (0.25) | 24 (06) |
| Total | 92 (23) | 160 (40) | 100 (25) | 48 (12) | 400 (100) |
| Chi Square Statistic (χ^2) = 353.08 (P=0.00) - Significant | | | | | |

Note: figures in the parentheses are percentages

The results obtained from the data collected from the women in IT industry have been summarized in table 1.6. This industry is meant for particular skill oriented people. Besides, the number of years devoted in education, the experience and prowess developed in the learning by doing matters. The table clearly establishes that the industry highly recognizes the talent and skill of B.Tech and M.Tech women in terms of higher salary. For, out of 244 B.Tech women employees, 177 (72.54%) were rewarded with more than 8 lakh salary per annum. Those who hold M.Tech degree are highly paid. All the 92 women holding this degree are getting more than 12 lakh per annum. This industry also accommodates M.Sc. (IT), MCA and MBA degree holders. But the table clearly shows that they are not recognized with such vigour. Their salaries are relatively less than the B.Tech and M.Tech degree holders. This does not put a question mark on the capability of these people. Nevertheless the nature of IT industry is responsible for such distinction.

Is there any association between the degree (qualification) and the salary? This aspect has been tested with the Chi-Square test. The Chi-Square statistic turned out highly significant; hence, the hypothesis of no relationship between the qualification and salary pattern has been out rightly rejected. It can be inferred that the qualification and salary structure are highly associated.

It has been established in the previous discussion that higher designation is rewarded with higher salary. But another important component of working conditions is whether the women working at different positions in IT industry are satisfied with their salary. Salary in the IT industry is a relative and satisfaction from the salary is generally perceived by the employees by making comparison with the other equally competent colleagues in other organizations. So satisfaction from the salary is not absolute concept, it is a rather relative notion. Therefore, it cannot be denied that high designation in the organisation may accompany the less satisfaction from the salary. The data obtained in this context from the sampled women has been condensed in table-1.7.

The table depicts that out of 400 sampled women, 78 percent are fully or partially satisfied irrespective of their designation in the organisation. Most satisfied categories are ‘software engineer’ and ‘associate software engineer’. The least satisfied category is category in terms of salary is ‘technical leader’.

Table-1.7: Cross Tabulation of Satisfied Salary and Designation

| Designation→ Salary Satisfaction↓ | Software Engineer | Associate Software Engineer | Senior Software Engineer | Technical Leader | Total |
|-------------------------------------------------------------------|-------------------|-----------------------------|--------------------------|------------------|--------------|
| Fully Satisfied | 33 (8.25) | 69 (17.25) | 36 (09) | 02 (0.50) | 140 (35) |
| Not Satisfied | 38 (9.5) | 49 (12.25) | 00 | 01 (0.25) | 88 (22) |
| Somewhat Satisfied | 63 (15.75) | 18 (4.5) | 76 (19) | 25 (6.25) | 172 (43) |
| Total | 124 (31) | 134 (33.5) | 112 (28) | 28 (07) | 400 (100) |
| Chi Square Statistic (χ^2) = 122.06 (P=0.00) - Significant | | | | | |

Note: The figures in parentheses are percentages

The table 1.7 also reports the Chi-Square Statistic which tests the hypothesis of independence between salary satisfaction and designation. The positive significant value of this statistic does not support the hypothesis of independence. Therefore, it can be deduced from here that there is a significant relationship between designation and salary satisfaction.

Job satisfaction is an important consequence of working conditions at workplace. Is there any connection between the designation and job satisfaction? When a person grows in career, with every higher step, employees commands the higher number of subordinates. It gives them a feeling of power and if utilized efficiently, satisfaction accompanies. Therefore, it can be hypothesized that higher position is accompanied by higher job satisfaction.

Table-1.8: Cross -Tabulation Job Satisfaction and Designation

| Job Satisfaction→ Designation↓ | Fully Satisfied | Not Satisfied | Somewhat Satisfied | Total |
|----------------------------------------------------------------|-----------------|---------------|--------------------|-----------|
| Software Engineer | 0 | 0 | 124 (31) | 124 (31) |
| Associate Software Engineer | 0 | 28 (07) | 108 (27) | 136 (34) |
| Senior Software Engineer | 68 (17) | 41 (10.25) | 103(25.75) | 112 (28) |
| Technical Leader | 24 (06) | 03 (0.75) | 01(0.25) | 28 (07) |
| Total | 92 (23) | 72 (18) | 236 (59) | 400 (100) |
| Chi-Square (χ^2) Statistic = 341.91 (p=0), Significant | | | | |

The table 1.8 highlights that there is significant relationship between job satisfaction and designation. As the value of Chi-Square statistic is highly significant and does not support the hypothesis of no relationship.

6. CONCLUDING REMARKS

Gender sensitive environment is prevalent for working conditions in the IT industry. This is in spite the fact that IT firms have gender policy. Even then, the women working in this industry are satisfied with the work culture prevailing. Majority of the women devote 8-10 hours at work place and the work hours devoted and designation are significantly associated. Women in the IT industry are suffering from the problem of overload with work and there is a direct relationship between over load and designation. IT industry pay handsome salary to it women employees and majority of them are satisfied with the salary structure. So far the qualification and salary relationship is concerned; IT industry highly recognizes its B. Tech and M. Tech women employees in terms of salary. In other words, qualification and salary structure highly associated. ‘Software engineer’ and ‘associate software engineer’ categories are most satisfied in terms of salary; however, ‘technical leader designate’ are least satisfied. There exists a significant relationship between designation and salary satisfaction. Therefore, it can be deduced from here that there is a significant relationship between designation and salary satisfaction. Designation at workplace has a role to play in the job satisfaction of women employees in the IT industry.

7. BIBLIOGRAPHY

- Ahmed, A. et ; al, (2010), “Measuring the Impact of ICT on Women in Bangladesh”, is available at <http://www.jstor.org>
- Gothoskar, S. (2000), “Teleworking and Gender”, *Economic and Political Weekly*, June 24, pp. 2293-2298.
- Kumari, S. (2015),”Role of Information Technology in Women Empowerment,” *Lakshya: Journal of Science and Management*, vol. Ist, January.
- Ramesh, B. P. and Neetha, N. (2004), “Women Workers in the New Economy Call Centre Work in NOIDA”, *Labour and development*, Vol. 10, No. 2, Dec. 2004, pp. 189-198.
- Shanker, D. (2008), “Gender Relations in IT Companies: An Indian Experience”, *Gender, Technology and Development*, Vol. 12, No. 2, pp. 185-207.
- Theerthalingam, C. (2008), “gender Issues in Information and Communication Technology”, *Women Link*, Vol. 14, No. 1, pp. 8-12.
- Webster, (2008), “Why are Women Still so few in IT? Understanding the Persistent Under-Representation of Women in the IT Professions”, *Cyber India Online Limited*, New Delhi.