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Construction Industry, Gender Gap, Glass Ceiling

Deconstructing the Gender in Construction Industry

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ABSTRACT

Indian construction industry is emerging as the second largest industry growing at a rapid pace and a great job generator. However, this industry witnesses least women participation, particularly at the higher levels in the job ladder. Large numbers of women work at bottom level of unskilled workers experiencing various issues and are denied access to the basic infrastructure and amenities. This study attempts to explore women's participation in terms of various gender gaps – gap in skilled and unskilled labour, pay gap, glass ceiling and access to amenities, through field surveys in Mumbai to understand women's perceptions and opinions – 1. Structured questionnaire floated across 30 real estate organizations 2. Semi-structured interviews conducted of 60 female professionals. The findings led this study to suggest policy level approach that can be followed by the employers and policy makers to improve women's participation and deconstruct the current gender norms contributing to women empowerment.



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Introduction

“Men do the important work in the world and the work done by men is what is important.” (Freeman, 1971)

Women’s struggle seems to be never ending in terms of independence, may it be decision making or financial. Opportunities to better jobs in organized sector still remains a dream for this large underprivileged half of the population. Women’s economic empowerment and their social status are the critical factors contributing to nations’ overall growth. Since 2005, it has been observed that there is continuous decline in the female labour force worldwide. As compared to 39% in 2018 world average, India has female labour force participation (LFPR – Working age women who are in employment or available for work) percentage as low as 22.1% ranking among the lowest ten which explains the severe gender gap in employment in the organized sector (The World Bank, 2019).

Opportunities for women to be leaders or be at a higher level in the ladder are almost non-existent. In terms of leadership, the blunt truth is that men still run the world. Women hold just 20% of seats in parliaments globally (Sandberg & Scovell, 2013) as compared to India that has 14% women representation in the Lok Sabha elections of 2019 (Deuskar, 2019).

The work field presents no different scenario. The percentage of female ‘Fortune 500 CEOs of America’ reached it’s all time high of 6.4 in 2017 (32 out of the 500) and fell to 4.8 percent again in 2018 after several of those women left those roles (Lindley, 2019). In India, it is just 3.4% (17 out of 500).

Further, there are few industries or fields that are highly male dominated where the female proportion is highly skewed and women at the top of the ladder are almost absent. Construction industry is one of them. It is one of the largest employment generators and has a strong linkage with various industries. Indian construction industry is emerging as the second largest that is growing at a mammoth scale and at a rapid pace (Sen, 2016). The statistics suggests that, out of total female labour force (around 30 million), 51% of females work in construction industry, of which 92% were engaged in carrying loads of cement, bricks, concrete etc. while receiving only half payment as compared to their male counterparts (Jhabvala & Kanbur, 2002). As per the recent study of 2014, from all registered companies at NSE, only about three percent of women are CEOs, and further, from all CEOs, only 3.69 percent are Managing Directors (Verma and Basu 2019). The situation is worse in construction industry.



Figure 1: Percentage of women at different levels of management as compared to men
 Source: The Economic times, March 2019

Thus, while women are adequately represented in the construction workforce at large, they remain scarcely present in managerial positions. Yet, this adequate representation of women will not last long as there has been a reduction of demand for unskilled labour since mid-1990s; and has fallen to a historic low of 23.3% in 2017-18, meaning that over three out of four women over the age of 15 in India are neither working nor seeking work which will lead these women to simply take care of chores and tend children (Rukmini 2019). Even from the existing female work force, most is almost exclusively unskilled, casual and manual labourers.

With respect to the gender gap in this industry, Geerstemar (2007) observes that percentage of women professionals in construction industry is very low, particularly if they want to lead or manage their own construction firm (Geerstemar, 2007).

The major gender gaps in the construction industry are at four levels:

1. Gap in skilled and unskilled labour
2. Pay gap
3. Breaking the Glass ceiling
4. Availability of infrastructure, amenities and facilities

Pertaining to these gaps, this study attempts to understand the concept of master-builder and evolution of this concept through the historical times, hierarchy structure of present construction industry, division of labour and women's participation while understanding barriers.

Talent, creativity and potential of half the population is missed out in those fields or industries where gender disparity exists. This study primarily is focused on this principle that leads to suggestions in terms of approaches to bridge the gender gaps at different levels and paving a path to cultural shift toward inclusivity of women in the construction industry.

Theoretical Framework

Since ancient period, as per Rigveda, Vedic architecture assigns the credit of designing the universe to great master builder Vishwakarma as a divine architect/ engineer who had creative power. Planning of several town and temple designs were credited to him such as Swarga, Lanka, Dwaraka and Jagannath temple at Puri (Vishvakarman, 2019). An ancient literature dealing with planning of houses and towns is credited to male authors such as Mayamatam (by Mayamuni), Arthashastra (by Chanakya), Smarangan Sutradhara (by Bhojdeva), De architectura (by Vitruvius), etc. assume master builder and construction labour both as males.

There are only a few examples of women as decision makers – they were mostly princesses or queens who conceived and executed monuments during the Mughal period such as Humayun's Tomb at Delhi or Itmad-ud-daulah at Agra (Pal, 2016). Rani Ahilyabai Holkar

with her sympathy towards women's everyday difficulties of collecting water ordered building of numerous *ghats* (stepped access to water) and also various temples.

Women's participation in the construction industry remains almost invisible in world history until World War I. Since 1880, women were gradually accepted into professions like medicine and law. However, while architecture became organized profession in 1857, it was around 1890s, that world witnessed women acquiring academic degree and entering into this profession where they had to struggle a lot to work in the architecture field and sustain as architects (Women in Architecture, Wikipedia, 2020).

It has been more than a century now and yet a vacuum remains in architectural practice where women work under the shadow of their bosses or colleagues or husbands making them almost invisible in the profession.

Career constraints for Women

The field of construction and its workplace has remained challenging for women limiting it as a career choice for many. According to Dainty et al. (2001) and Haupt Smallwood (2004), this field is highly male dominated and hence the employers' best choice in this industry are always men (Dainty, Bagilhole, & Neale, 2001).

According to Thompson (1996), even the younger generation men are still of the opinion that women are not suitable for jobs in the construction industry, both physically and psychologically (Amaratunga & Haigh, 2006). Further Geerstemar (2007) refers to a very low percentage of leading women professionals in this industry.

Women in the construction industry could be categorized in three groups: women working in professional / technical positions, women in administrative positions, and women as construction labour working at sites. It is rare to find women contractors and site engineers in the construction sector in India, though there are women architects and designers (Ahuja and Kumari, 2013).

1. There can be various reasons for under representation of women in construction industry at higher levels where formal education and skills are required. One study Bennett et al. (1999) cited in Patel & Pitroda (2016) states that social acceptance of women in this industry is low due to the following factors:
2. Social consideration that the occupation is not suitable for women
3. Sexual discrimination which is common
4. Assumption that women are physically incapable to handle jobs in this industry such as extreme weather or blue-collar nature of such jobs
5. Unsociable work hours
6. Exposure to hazards in terms of physical safety The women who pursue a career in the construction industry transgressing their socio-cultural and personal constraints as

mentioned above, further experience various issues at whichever step on the job ladder they are.

The case study at New Delhi (NCR) (Ahuja & Kumari, 2013) through the quantitative field survey was conducted with 93 male and 48 female professionals working in 25 different private organizations through semi-structured questionnaire, it concludes that –

- Women are mostly absent at senior positions
- Women strongly perceive and hence accept less important positions
- Women rarely are involved in site work
- Break in the career of women is inevitable due to absence of maternity leaves consideration in the industry
- Around 60% women vocalised the experience of sexual harassment of various degrees where as 60% men participants did not agree to such experiences of women.

A study in the UK, supports the above findings that women are underrepresented at senior or managerial positions. It also suggests that women adopt democratic & participative style of leadership (Amaratunga R. D., Haigh, Ginige, & Thurairaja, 2008). Another study in Sweden by (Hyslop, 2011) presents a positive approach suggesting that barriers can be turned into opportunities through self-confidence, developing business skills, and networking.

Methodology

Considering the various studies and statistical data with respect to construction industry, this study attempts to explore –

1. Women's experiences, opinions and issues at different steps in the job ladder
2. Approaches and suggestions towards
 - a. Improving the quality of life of unskilled female labour
 - b. Increasing participation of women at managerial and decision-making levels

The research methods followed for the inquiry to explore the above concerns are both qualitative and quantitative. Literature review with statistical data is used to explore issues of women working as construction labour whereas on-field surveys both qualitative and quantitative were conducted to identify the gender gap at managerial and decision making levels. The survey questionnaire was designed so as to address the following objectives:

- To examine if women's experiences in the construction industry vary with respect to their work type and position in the hierarchical ladder.
- To understand constraints that influence women's career choices in construction industry.
- To identify various approaches to address women's issues in the construction industry so as to increase their participation at higher positions.

Research Process

For the survey, the city of Mumbai was chosen with the consideration that it has a large number of construction activities, due to the very fast growth rate of the city. To address the above objectives, research process adopted in this study involved dual pronged approach – literature review as well as field study. Plethora of research has already dealt with the state of women who work as unskilled labour as well as gender pay gap. Hence this study depends largely upon literature review to understand the specifics of these research objectives. However, to unearth the facts regarding glass ceiling in this industry and availability of infrastructure / facilities, a questionnaire survey was conducted. This study was limited to the geographic area of Mumbai region and to quite a few numbers of women who work at middle or top managerial levels due to their relative absence at such levels in this industry.

Methods of Enquiry

The field study involves two different surveys that include:

1. Organizational Category – Across 30 real estate organizations having staff strength ranging between 30 and 90 in Mumbai that also included 6 architectural firms with varying staff strength. Human resource managers included both female and male managers.
2. Professional category – included 60 women at top and middle level management in various departments. The choice to only include women is a conscious decision based on the belief that this will give a good and accurate image of the processes that are present in organizations.

Semi-structured questionnaires were used to collect primary data from the human resource and women managers that encouraged women to share their opinions and experiences unreservedly. 80 questionnaires were distributed to women managers out of which 60 replied. The research also includes unstructured interviews.

Category of the firms (No. of employees)	Total no. of employees	Women at top & middle management	Women at lower management
< 30	313	5%	12%
30-60	194	2%	7%
60-90	164	3%	8%
>90	1065	3%	14%

Figure 2: Percentage of women at top and middle management levels
 Source: Author



Figure 3: Percentage of participating women in various types of decision making
 Source: Author

Findings

With respect to the major gender gaps in construction industry at four levels mentioned earlier, this study presents the following findings:

Gap in skilled and unskilled labour – It has been observed that skilled female labour is almost absent in the construction industry and the same system is reinforced by almost complete absence of opportunities to move up the job ladder. Women are highly tied up by the family responsibilities and unskilled labour have to carry their children on site. This stratum of unskilled female labour doesn't have control on their own earnings. Unavailability of basic infrastructure and facilities such as creche, breastfeeding break and related facility, enclosed toilets, etc. make their lives further miserable. Sexual harassment is commonly experienced and occupational health hazards such as back pain, allergy, pollution, accidents, etc. are faced by all irrespective of gender or skills (Srivastava & Jha, 2016).

Gender biases – A gender bias in this industry is quite evident in the pay gaps. In 2018 survey conducted by RICS it was observed that men were paid 36% more than women for the same job in the construction industry, making the sector among the least equal nationally. There is also an age dynamics wherein the gender gap increases with age and it was also found that men receive more bonuses irrespective of the quality of their work (Ing, 2019).

Glass Ceiling— Keeping women from top management positions due to tradition of sex discrimination is popularly referred to as “The Glass Ceiling” (Marais, 2010).

The first field survey of this study was conducted with the sample of 60 women at top and middle level management in various departments to understand the job title, position of women professionals in the job ladder and their perceptions towards gender gap in this industry at different managerial levels and further prospects. The data collected was

analysed in SPSS with Chi-square and Anova for triangulation. The findings of the survey are as follows:

The survey findings point towards a severe gender gap in the participation of women at the top and middle management levels (**Figure 2**). Those women who are at the top or middle management levels and involved in decision making process, are preferred mostly for their financial or administrative abilities than technical expertise that is pertaining to construction industry in spite of having relevant technical degrees (**Figure 3**).

The study also sought to identify respondents' perceptions if the gender bias is an underlying factor or clear preferences are mentioned in the advertisements for various positions in the industry. 63% of respondents are of the opinion that gender bias is evident in such advertisements particularly at the top and middle management level positions. Men are largely hired to handle site operations than women in view of women's perceived physical limitations or unwillingness whereas more women are hired at office operations (**Figure 4 & 5**).

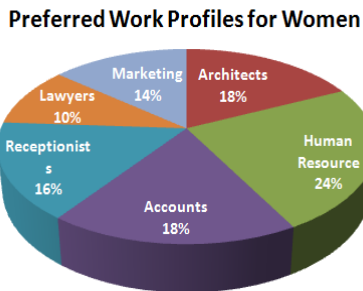


Figure 4: Preferred work profiles for women
Source: Author

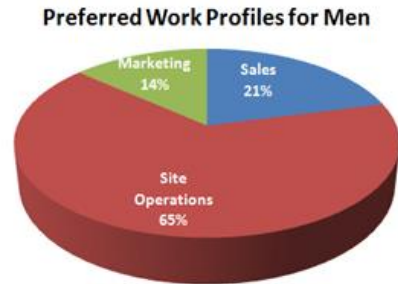


Figure 5: Preferred work profiles for men
Source: Author

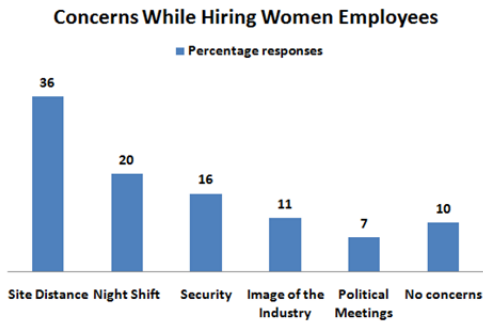


Figure 6: Concerns while Hiring Women Employees
Source: Author

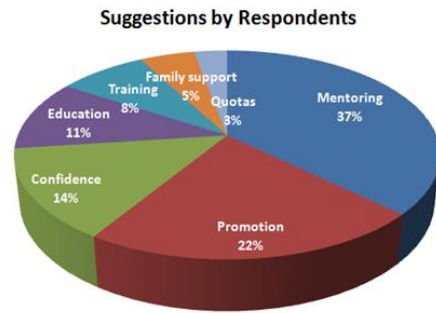


Figure 7: Respondents' Suggestions to improve the women's status in Construction Industry
Source: Author

Second survey was conducted in 60 real estate and architectural firms/organizations to identify men and women workers' and employers' perceptions about types of jobs (skilled and unskilled), availability of infrastructure and workplace conditions considering differential needs based on gender, remuneration/daily wages, future prospects of learning skills/ promotions, etc.

Findings of this survey are as follows:

Firms or employers presented various concerns while hiring women employees in the construction industry (**Figure 6**). Most of these concerns also act as external constraints for women who wish to work in this industry. 67% respondents experience lack of training or efforts from management to improve their skills and rise in the job ladder.

Availability of infrastructure, amenities and facilities – Unavailability of basic infrastructure makes lives of women construction site labourers quite miserable. Enclosed toilets, facility for child care centres and breastfeeding, primary education for children of site labourers, medical support and safety precautions by employer are the amenities highly missing on most of the construction sites. The larger work force of unskilled female workers is vulnerable to exploitation and sexual harassment.

Discussions and Suggestions

The literature review and survey findings both point towards a huge disparity between male and female employees in the construction industry. The male-female equal ratio in different training institutes such as Architecture, Civil engineering, Construction/Site Management, etc. across India provides an encouraging picture that instil hope towards increased participation; however, this equal proportion suddenly becomes extremely skewed when it comes to jobs in this industry. This poses a serious concern and emphasizes the need to explore and implement ways to increase women's participation.

The survey respondents had various suggestions regarding improving the situation and to encourage women's participation in the construction industry (**Figure 7**). Most of them are of the opinion that their work should be appreciated by their immediate bosses and they should mentor the female employees (37%). Promotions in the jobs will definitely change the scenario positively (22%).

The findings of this survey are in tandem with the observations across cities in India. Hence a comprehensive approach is needed to address the issue. For unskilled female labourers, Government must design and implement stringent laws for provision of basic infrastructure and amenities by the employers. Women at this level should be encouraged to acquire better skills with which they can move up the ladder and will see some hopes of better quality of life. Policies incorporating flexible working hours, safety, maternity leave consideration, access to child care and better transport, skills development, basic infrastructure and access to job opportunities for women are highly needed. Women contractors is a highly absent concept which can be promoted by policy makers and encourage them by provision of loans. Understanding the highly skewed percentage of women due to various constraints faced by them, policy makers adopt gender specific approach. The studies have suggested that women adopt democratic & participative style of leadership. With the support of government policies, it is possible to turn the barriers into opportunities.

The holistic approach to this issue will not only improve women's participation, but deconstruct the gender norms that are present in the construction industry by providing opportunities to dignified work contributing to the empowerment of women.

Conclusions

The gender gap in the construction industry is a critical issue that cannot be sorted without intervention. The surveys and literature, both indicate the skewed percentage and point towards difficulties women workers endeavour at every step in the job ladder. They are denied basic amenities and infrastructure, opportunities to promotions and acquiring the necessary skills for the same and equal wages. A complete revolution is required in terms of change in societal perception as well as government policies and employers' positive approaches, educating or training the female workforce at all levels, sensitizing the employers and government and enforcing the laws for betterment of female employees in the construction industry are the immediate steps that are needed to be followed. The task is herculean and will not happen overnight, yet the first step towards inclusiveness will positively make an immense difference to bridge the gender gap in this industry, particularly at higher levels of job ladder. ■

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