WOMEN PROFESSIONALS' PARTICIPATION IN THE CONSTRUCTION INDUSTRY - INDIAN SCENARIO

Ahuja, V.[1] and Kumari, S.[2]

Abstract:

Construction industry is an integral part of a country's infrastructure and industrial development. But, it is typically a male dominated industry and presents a major challenge for equal opportunities for women. India, one of the fastest growing economies in the world, is facing the global phenomenon of shortage of skilled workforce. To make up this shortage, it becomes imperative to convert untapped women resource. Paper presents a component of the work of a PhD research conducted to study the status of women workforce participation in Indian construction industry, issues and challenges faced by them and recommendations for improving working environment for them. Discussion focusses on issues and participation of women executives or professionals. Literature review from global research forms the base for identifying research variables and leads to data analysis from questionnaire survey conducted in the National Capital Region of India which includes capital city New Delhi and surrounding areas. Survey sample included men and women executives and representatives of organizations. Results indicate that women join the construction industry because of its challenging character, but their perception is that they do not get adequate opportunities and one of the identified barriers is work culture of long and inflexible working hours that does not support their requirement of devoting time for family responsibilities. Government level initiatives are required to address these issues and due to changing social demography, periodically studies need to be conducted to address these issues. Though the study is focussed for Indian Construction Industry, it has a global relevance and specific relevance for other developing countries.

KEYWORDS: INDIAN CONSTRUCTION INDUSTRY, ISSUES AND CHALLENGES, WOMEN WORKFORCE

1. INTRODUCTION

Construction sector is the world's largest industrial employer (Improving Working and Living Conditions in Construction, 2004). In India, it is one of the fastest-growing sectors and the second-largest generator of employment after agriculture. The Indian construction industry employs about 31 million people (India infra guru jobs, 2008) and by 2022 the workforce is expected to increase to 92 million (Government of India, 2011). More than half of the 31 million construction workers in India are women, but their potential is not utilised to the maximum (Government of India, 2008). The status of women is one of the determinants in overall development of any country. This issue is comparatively more serious in developing countries and specifically in construction industry.

[1] School of Construction, RICS School of Built Environment, Amity University, Noida, INDIA. Email: vahuja@rics.org

[2] Faculty of Management Studies (WISDOM), Banasthali University, Rajasthan, INDIA. Email: savita2006.kumar@gmail.com

The predominant image of construction is that of a male-dominated industry (Agapiou, 2002 cited in Amaratunga et al., 2006) and researchers have acknowledged the worldwide phenomenon of underrepresentation of women in the construction industry (Othman and Jaafar, 2013). Educating and recruiting more women in the construction industry is as important as retaining them (Gurjao, 2006). Researchers have highlighted the issue of low number of women holding managerial positions in the industry (Othman and Jaafar, 2013), gender divisions and vertical segregation (Fernando et al., 2014). This is a global phenomenon and is a case for global research. Globally construction industry is experiencing shortage of skilled workforce. Researchers have highlighted the requirement to attract more women to construction industry in order to fill the skills gaps and to make changes within the industry in terms of gender segregation and enhanced productivity (Fernando et al., 2014).

Job satisfaction as a result of opportunities and promotion is more likely to retain staff (Gurjao, 2006). But, majority of women face myriad issues and researchers have highlighted issues like societal perceptions, work–life balance issues, glass ceiling, low skills set. Primarily women bear the primary responsibility for domestic duties (Amaratunga et al., 2006). Thus, women in older age groups/mature women require part-time working and flexible working time options (Gurjao, 2006). But, construction industry globally does not attend to issues like balancing the work and family commitments (Fielden et al., 2000 cited in Amaratunga et al., 2006), leading to construction women adopting 'either or' approach to career and family (Amaratunga et al., 2006).

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 (Ahuja & Kumari, 2012). It is rare to find women contractors and site engineers in the construction sector in India, though there are women architects and designers. Negligible presence of women in construction industry has attracted both government and industry players' attention with focus on studying the issues leading to less participation of women in the sector and in finding ways to resolve these issues (Ahuja & Kumari, 2013). But, in India studies are primarily conducted pertaining to the women of the third group i.e construction workers or labour which are large in number.

This paper discusses a component of the work of a PhD research conducted to study the status of women workforce participation in Indian construction industry, issues and challenges faced by them and recommendations for improving working environment for them. Study was conducted for women executives or professionals as well as workers at site. This discussion is focused on issues related to women professionals or executives. Literature review from global research forms the base for identifying research variables and leads to data analysis from questionnaire survey conducted in Indian Construction Industry. Study has global relevance in terms of social sustainability factor of women having equal work opportunities and economic sustainability factor of improving social productivity for all sectors. It has specific relevance for other developing countries.

2. CHARACTERISTICS OF CONSTRUCTION INDUSTRY

Construction industry is known as a demonstrably male-dominated economic activity (Othman and Jaafar, 2013). Researchers have highlighted construction industry's over emphasis on "male values" which include long working hours, working away from home and geographical instability, a highly competitive culture (Amaratunga et al., 2006) and a high level of stress (Othman and Jaafar, 2013). Researchers have named it as culture of 'competitive presenteeism' (Watts, 2009). Construction industry work environment leads to conflicts in balancing work and family (Othman and Jaafar, 2013) and has not kept pace with social and demographic changes occurring within the industry workforce (Lingard & Francis, 2008). Generic problems of inflexible working practices are experienced by women in all investigated areas of the supply chain (Gurjao, 2006 cited in Worrall et al., 2010).

Women encounter barriers at every stage of their progression (Gurjao, 2006). Working arrangements such as part time working, career breaks, and job sharing are considered as feminine and unfeasible in the industry (Amaratunga et al., 2006). Site conditions are not conducive for women and contractors have to invest extra finances in arranging basic facilities like toilets and guest houses specifically for them. Also, sometimes it is considered difficult to maintain discipline at site with male and female employees working together (Chittibabu, 2007). Such issues are faced by women executives as well as workers at site. In a survey of Indian Construction industry it was found that at many sites, duty to provide basic sanitation, first-aid facilities and child care facilities is completely ignored. Amongst the surveyed sites, 64% had no toilet facilities and 45% did not even provide drinking water (Baruah, 2010). Women who are at managerial positions at site feel negative about varying degrees of confrontation, close surveillance due to heightened visibility, sexual harassment, intimidation and wider safety issues, all experienced as emotionally draining and sometimes reasons for leaving (Watts, 2009).

Globally construction industry is facing an ongoing skills shortage and diversity-based recruitment levels are currently inadequate in meeting this severe skills gap (ConstructionSkills, 2008 cited in Worrall et al., 2010). Researchers have suggested that facilitating "untapped resource" of women participation could expand inclusivity and significantly improve the current skills' shortage faced by the industry (English and Hay, 2015; Gurjao, 2006; Worrall et al., 2010).

Status of Women in Construction Industry

Researchers have reported that wide range of global legislations emerged in the late 1990s to support women, but still the approximate proportion of women in construction industry is 10 per cent (Gurjao, 2006) and 66 per cent of women are employed in clerical roles (Gurjao, 2006; Fielden et al., 2000) rather than in a construction role (English and Hay, 2015). Since 1997, percentage of women in the UK construction industry, has remained relatively unchanged at between 10 and 14 per cent (Fernando et al. 2014). Women are seriously underrepresented in the construction sector in the European Union even though their representation in other sectors of the economy has increased (Byrne et

al., 2005 cited in Haupt and Fester, 2012). In South Africa, women represent only 20 per cent of architects, 12 per cent of quantity surveyors, 2 per cent of civil engineers, 3 per cent of construction project managers and 0.6 per cent of construction managers (Worrall et al., 2010). In Cuba, published statistics show women's employment in construction at 20.3 per cent of the workforce (Ramirez, 2004), and it is increasing rapidly (Fortune, 2010). Family-friendly practices were not evident in the Australian construction industry (Haupt & Fester, 2012). In a survey conducted in Thai construction industry, it was studied that women engineers in contractor companies were much more affected by problems such as sexual harassment, work-life conflicts and equal opportunity than women engineers in non-contractor companies (Kaewsri & Tongthong, 2011). In India, 50% of workforce in construction industry is women (Government of India, 2008), but only about 1.4% are engineers, architects, designers and administrators (Chittibabu, 2007), rest work as construction labour. In a longitudinal study conducted in India, findings were: During last decade of 20th century there was a significant drop in preference for civil engineering and electrical engineering; Women engineers strongly perceive that they do not get what they deserve in terms of jobs, promotions, salaries as well as professional recognition; 'Unsatisfactory work opportunities and environment' is perceived as the most important factor affecting their career (Parikh & Sukhatme, 2004).

The under-representation of women at senior levels is attributed to several structural and attitudinal barriers which may be gender-centred or organization-centred (Fernando et al., 2014) and reflects the phenomenon of "glass ceiling" (Gurjao, 2006). Globally women in construction perceive that though they may not face major discrimination, but they have to work harder than their male colleagues and have to prove themselves all the time (English & Hay, 2015; Parikh & Sukhatme, 2004). Studies focused on women entrepreneurs in construction industry have shown that financial institutions consider women - owned businesses high-risk enterprises and thus women have difficulty in finding capital to finance their projects (Maharaj & Edigheji, 1999). EOC (Equal Opportunities Commission) research in UK shows that about 30,000 women leave their jobs annually on account of poor maternity rights and women from construction industry form a major component (Gurjao, 2006).

Women in different stages of profession in construction industry can be categorized as: Young women joining after completing education; Women starting on with family responsibilities and to be retained in the workforce; Women trying to return or returning to work following a career break; and Women who may join construction industry seeking a career change. Different issues are relevant at each stage of their professional career and are being studied globally.

The UK construction industry recently has become more proactive in making effort to retain women in order to avoid the 'revolving doors syndrome' that is attracting people only for them to exit shortly (Gurjao, 2006). In UK, Salford University has also conducted a study 'Developing Female Engineers' and brought forth the concept of 'leaky pipeline' which explains that though number of women entering the construction industry is increasing, but still the overall percentage was not increasing because losses were experienced along the way (Gurjao, 2006). Safa (1995) describes equality rights for

women in the Cuban Constitution – such as equal pay, affirmative action in the workplace, one year's maternity leave on full pay, free day care centres for children, promotion of equality in education and affirmative action in the home through the Family Code (Fortune, 2010). As reported above, this has helped in increasing participation of women in Cuban construction industry. Galea & Loosemore (2006) have discussed gender specific way of communication in the construction industry i.e. genderlect. The study finds that the main cause of interpersonal conflicts is the difference in way of negotiation by men and women. And genderlect in the construction industry is male centric and is the main reason of the conflict between male and female workers.

It would seem from models in Europe that political good will to encourage employment of women is insufficient to elicit change and that only when equal opportunity actions that targeted women were implemented was there a change (Michielsens, 2004 cited in English et al., 2006). 'Tokenism' approach needs to be avoided (Gurjao, 2006). Also, objective needs to shift from requirement to solve the labour resources crisis and skill shortages to improve equal opportunities for women (Agapiou, 2002 cited in Amaratunga et al. 2006).

In a study conducted in India regarding career goals of women engineers, identified goals were: Opportunity for personal growth and development of independent thought and action; feeling of security by being self-supporting and opportunity for financial growth (Parikh & Sukhatme, 2004). From studies conducted to assess critical success factors as perceived important by professional women in construction industry, identified factors were: Educational qualification; Chartered qualification; Organisation support in the form of flexibility, having a good mentor and managers, ongoing training and development activities and personal development; Family support in the form of support from male partners or spouses and extended family; Support from peers; Opportunities and personal developments through training; Personal characteristics like personal ambitions, relationships with clients and co-workers, a positive attitude to responsibility; Soft skills like determination, quality of examinations, presentation skills, resilience, common sense, and sense of humour, hard work and other soft skills; and General management and Project management skills (Fernando et al., 2014; Haupt and Fester, 2012).

Strengths of Women

Women have inherent strengths that can positively contribute to the construction industry. Women are perceived to have better listening skills and soft skills (English & Hay, 2015), they are perceived to be more creative than men, they pay more attention to detail, are more thorough, more organised, more precise and make a deeper and more thorough analysis (Fortune, 2010). Women are better at negotiating relationships and keeping the peace, while men tend to be more aggressive (English & Hay, 2015). Traits like teamwork, politeness and multi-tasking that are considered feminine can have beneficial application on site (English and Hay, 2015). Women have stronger communication, empathy, and as compared to men they are able to response better to stress (Othman and Jaafar, 2013). Women are more likely to be innovative and flexible and adopt a participatory mode of working (Watts, 2009). Women project managers are

found to have the ability to perceive warnings, stay alert when problems or conflicts arise, picture and analyse the problem to make an appropriate decision (Othman and Jaafar, 2013).

3. DATA ANALYSIS OF STUDY CONDUCTED IN INDIAN CONSTRUCTION INDUSTRY

Research was conducted in Indian construction industry to study the issues, challenges and prospects for women workforce participation in Indian Construction Industry. This research was conducted because there are very limited published studies in India addressing the issue. Research Methodology included qualitative as well as quantitative study. Issues that required urgent attention and study were identified through literature survey. Identified issues are: Perception and attractiveness of construction industry among women as a career opportunity; Discrimination faced by women on account of gender; Opportunities and challenges in career growth; Working conditions for women at construction site; and Social Security benefits to women.

Quantitative analysis was conducted on the data collected through structured questionnaire survey. The samples of study were both men and women professionals. This is because being a comparative study, the perception of men towards participation of women in construction industry and their working conditions was also considered important. Qualitative analysis was conducted on data collected from representatives of construction organizations through a semi-structured questionnaire survey. For these two distinct questionnaire surveys, the survey area was National Capital Region (NCR) that includes capital city New Delhi and regions of neighbouring States. Since last two decades, NCR of India has been witnessing high construction activity and is poised to continue as one of the fastest growing regions, both in per capita as well as population density (The Economic Times, 2011). Considering factors of high construction activity and presence of migrants from across the country, NCR was selected for survey. Quantitative data analysis was conducted through SPSS (Statistical Package of Social Sciences) using descriptive statistics. Survey sample for the professional category included 141 professionals comprising 48 (1/3rd of the total sample) women and 93 men. This indicates minimal presence of women as construction professionals. For Organizational category, 25 organizations of different staff strengths were studied. These organization were primarily of private sector.

Age and experience profile of men and women were distinct. None of the women respondents was above the age of 50 years, whereas 4 male respondents were older than 50 years. 85% women were less than 35 years of age whereas only 50% men were below 35 years of age. Majority of women (50%) had 3-5 years of experience whereas only 4% of them had 10 years' experience. Amongst men, 40% of them had experience of 10 years or above. Majority of women respondents were architects (40%) and only 22% were engineers, though 40% of interviewed men were engineers. 50% of women respondents were employed at middle level management and only one third were at senior level of management. Amongst men, 56% were working at middle level of

management, whereas 25% were working at senior level of management. All women respondents were fulltime employees whereas, some of the male respondents (15%) were either working part time or as consultants.

44.8% women respondents and 84% men agreed that women face difficulties in securing employment in the construction industry. Among male respondents, reasons for joining the industry were almost equally divided between family background, challenging nature of the industry, better growth opportunity and better income. But, for 75% of the women respondents it was the challenging nature of the industry. While all female respondents perceived that women can experience career progression to the top managerial positions, 18 out of the 93 male respondents did not think so.

2/3rd of women respondents disagreed with the statement that there were equal opportunities for both genders in construction industry, whereas only one third of the male respondents disagreed. More than 10% of total respondents strongly agreed with the statement. 15 women and 47 men (total 63 i.e. 45%) indicated that they had never witnessed any inequality/discrimination on account of gender. Remaining 78 respondents (55%) had witnessed harassment (1 man); disrespect (1 woman and 4 men); lack of opportunity (32 women and 17 men); mistreatment/ill treatment (3 men).

Around 60% women as well as male respondents agreed or strongly agreed that construction industry is a male dominated industry. Also 73% women and 60% men perceived that the culture of construction industry is unfavourable for female employees. A staggering 92% of total respondents agreed that long working hours and inflexible working hours create unfavourable working condition for women. Only 31% women respondents perceived that women are susceptible to verbal abuse in the construction industry as against 54% men. On the other hand 56% women respondents perceived that they are susceptible to sexual abuse as against 39% men. 84% of total respondents perceived that the government should take initiatives to attract women into construction industry.

For study of organizations, sample included very young organizations established recently (2013), organizations having 10-15 years of operations and matured organization serving for last six decades. Executives at different job profiles (24 different types of jobs) were interviewed. Findings of the interviews through questionnaire survey revealed negligible presence of women in the construction industry. Most of the respondent organizations had only up to 10% female employees. None of the organizations had more than 20% female employees. Surprisingly, new and few older organizations stated female employees are not suitable for site work. Though for administrative work gender is not an issue, still they have a preference for male employees over female employees and the associated perceptions were that: Male employees are comparatively more skilled and are ready to handle different tasks; Male employees are ready to take hard and tough jobs; Females take more leaves and are irregular in duties; and Females are reluctant to migrate to remote sites or to work in night shifts. However few organizations' viewpoint was that women employees were more efficient for research & development, design preparation and office work. Also, they are less motivated to form employee groups like unions.

4. CONCLUSIONS

Survey results indicate that there is marginal presence of women in senior positions and at mature/older age. Women join the industry for its challenging nature, but there is strong perception that they do not get equal opportunities in the industry and they are also not able to effectively get involved in the site work.

Women are not adversely affected by the loud character of the industry and do not experience significant verbal abuse but they experience sexual harassment. This is an issue that is perceived differently by men. Compared to 56% women only 39% men perceive that women face sexual harassment. This indicates that women should be at senior positions so that issues pertaining to women can be addressed. Women perceive that they can achieve top managerial positions, but men have different perception. Further qualitative study is required to understand factors for such differing perceptions.

78% respondents had witnessed gender discrimination in the form of harassment, disrespect, lack of opportunity and mistreatment. Survey data supports that long and inflexible working hours create unfavourable working conditions for women and culture of the industry is also not suitable for women. As discussed in literature survey, providing adequate maternity benefits results in retention of women or their return to the industry after sabbatical. Future research work includes a social study to understand the appropriate period and structure of maternity leave that would facilitate women to remain involved with organisational work during that period and further join back full time work.

Literature study is supported by survey as respondents perceive that government level initiatives are required to change the face of women participation. But, such interventions would be effective if general perception is changed regarding reasons for women taking leaves and their work preferences. Family support is needed so that women avail minimal leaves due to family commitments and can also travel to sites. Organizational support is needed with respect to supporting them with flexible working hours and work from home options. This would help in retaining women at the time when they need to devote time for family responsibilities and would also provide easy transition for their return. This would be in line with efforts made by Cuban government and society and reduce the 'Leaky pipeline' phenomenon.

Organizations perceive that women have better capabilities for research and design activities and do not involve themselves in groupism or other disruptive activities. Thus, along with above discussed affirmative actions, organizations should plan complimentary work assignments as per strengths of men and women employees and lead to benefit for the organization and the industry. At industry level, efforts are needed to increase use of IT and virtual working environment in the industry. This would further facilitate women in working from home.

The study highlights that addressing above discussed issues would bridge the skills gap in the industry and provide women equal opportunities, thus improving the work satisfaction among women. This would aid towards achieving economic and social

sustainability in the society. Due to changing social demography, similar studies should be periodically conducted at global level to study and improve the working conditions and presence of women in construction.

5. REFERENCES

- AGAPIOU, A. (2002) Perceptions of Gender Roles and Attitudes towards Work among Male and Female Operatives in the Scottish Construction Industry, Construction Management and Economics, 20, pp 697-705.
- AHUJA, V. & KUMARI, S. (2012) Issues and Challenges for Women in Construction Industry: Global as well as Indian Perspective, Proceedings of the Regional Conference of 'The International Network of Women Engineers & Scientists (INWES), New Delhi, India, 12th – 13th Oct., pp 11.
- AHUJA, V. & KUMARI, S. (2013) Indian Construction Industry – Training Needs and Issues, Proceedings of the 18th Annual Convention and Seminar on 'Training, Skill Upgradation and Competence Development in Building Industry' of Indian Buildings Congress, New Delhi, India, 20(1), pp 54-60.
- AMARATUNGA, D., HAIGH, R., LEE, A., SHANMUGAM, M. & ELVITIGALA, G. (2006) Construction industry and women: A review of the barriers, Research Institute for the Built and Human Environment publication, The University of Salford, Salford, M5 4WT.
- BARYAH, B. (2010) Women and Globalization: Challenges and Opportunities Facing Construction Workers in Contemporary India, Development in Practice, 20(1), pp. 31-44.
- Byrne, J., Clarke, L. and Van Der Meer, M. (2005) Gender and Ethnic Minority Exclusion from Skilled Occupations in Construction: A Western European Comparison, Construction Management and Economics, 23(10), pp. 1025-34.
- CHITTIBABU, M. (2007) The Working Women in Contemporary Conditions and the Position of the Class Oriented Trade Union Movement, Presented in 16th Congress of World Federation of trade Unions, Brussels, Belgium, 13-14 Sep, 2007.
- ConstructionSkills (2008) Diversity within Construction, Available at: www.constructionskills.net/research/researchactivity/diversitywithinconstruction.asp
- ENGLISH, J., HAUPT, T.C. & SMALLWOOD, J.J. (2006) Women, Construction and Health and Safety (H&S): South African and Tanzanian perspectives, Journal of Engineering, Design and Technology, 4(1), pp. 18-28.
- ENGLISH, J. & HAY, P. (2015) Black South African women in Construction: Cues for Success, Journal of Engineering, Design and Technology, 13(1), pp. 144 – 164.
- FIELDEN, S. L., DAVIDSON, M. J., GALE, A. W. & DAVEY, C. L. (2000) Women in Construction: The Untapped Resource", Construction Management and Economics, 18, pp. 113–121.
- FERNANDO, N.G., AMARATUNGA, D. & HAIGH, R. (2014) The Career Advancement of the Professional Women in the UK Construction Industry, Journal of Engineering, Design and Technology, 12(1), pp. 53–70.
- FORTUNE, J. (2010) I am the Mother and the Father - Women in Construction in Cuba and the UK, International Journal of Cuban Studies, 2(1/2), pp. 147-156.
- GALEA, N. & LOOSEMORE, M. (2006) Men and Conflict in the Construction Industry. In: Boyd, D (Ed) Proceedings of 22nd Annual ARCOM Conference, 4-6 September 2006, Birmingham, UK, pp. 843-850.
- GOVERNMENT OF INDIA, PLANNING COMMISION (2008) Volume II: Social Sector, Chapter 6: Towards Women's Agency and Child Rights, Eleventh five year plan 2007 - 2012. New Delhi: Oxford University Press.
- GOVERNMENT OF INDIA, PLANNING COMMISSION (2011) Faster, Sustainable and More Inclusive Growth, An Approach to the Twelfth Five Year Plan.

- GURJAO, S. (2006) Inclusivity: The Changing Role of Women in the Construction Workforce, Chartered Institute of Building, Ascot.
- HAUPT, T. & FESTER, F. (2012) Women-owned Construction Enterprises: A South African Assessment, Journal of Engineering, Design & Technology, 10(1), pp. 52-71.
- Improving Working and Living Conditions in Construction (2004) Draft Recommendations and Technical Guidance from the International Federation of Building and Wood Workers, Available from: www.ifbww.org/files/Improving_Working_and_84E5F.pdf [Accessed: 14th June 2013].
- India Infra Guru Jobs (2008) Construction, Available from: http://www.indiainfraguru.com/construction html [Accessed: 14th August, 2009].
- KAEWSRI, N. & TONGTHONG, T. (2011) An Investigation of Women Engineers in Non-traditional Occupations in the Thai Construction Industry, Australasian Journal of Construction Economics and Building, 11(2), pp. 1-21.
- LINGARD, H. & FRANCIS, V. (2008) An Exploration of the Adaptive Strategies of Working Families in the Australian construction industry, Engineering, Construction and Architectural Management, 15(6), pp. 562 – 579.
- MICHIELSENS, E., FRYDENDAL PEDERSEN, E. & SUSMAN, B. (2004) The European Social Partners for Construction: Force for Exclusion or Inclusion?, Women in Construction, edited by Linda
- MAHARAJ, A. & EDIGHEJI, S. (1999) Women in Construction: Breaking Ground Agenda, No. 42, Land and Housing: Women Speak Out (1999), pp. 82-87. Available on http://www.jstor.org/stable/4066045 [Accessed on 1st December, 2011].
- OTHMAN, N.L. & JAAFAR, M. (2013) Personal Competency of Selected Women Construction Project Managers in Malaysia", Journal of Engineering, Design and Technology, 11 (3), pp. 276-287.
- PARIKH, P. P. & SUKHATME, S.P. (2004) Women Engineers in India, Economic and Political Weekly, 10th January issue, pp. 193-201.
- RAMIREZ, R.M. (2004) Official Statistics of the National Direction of the Federation of Cuban Women. Cuba FMC 2004.
- SAFA, H .I. (1995) Economic Re-structuring and Gender Subordination, Latin American Perspectives, 22: 32.
- WATTS, J. H. (2009) Leaders of Men: Women 'Managing' in Construction, Work, Employment and Society, 23(3), pp. 512-530.
- WORRALL, L., HARRIS, K., STEWART, R., THOMAS, A. & McDERMOTT, P. (2010) Barriers to Women in the UK Construction Industry, Engineering, Construction and Architectural Management, 17(3), pp. 268 – 281.