



# Assessment of Female Professionals' Low Participation in Building Construction Industry (Case Study of Osun State, Nigeria)

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**Abstract** – Today's construction industry is conventional in employing women due to extreme gender stratification. Most of the women working in the construction industry carry out managerial, technical and specialized work while the employment of women at the professional level is very little and the data are limited to zero. This paper assessed the factors responsible for female professionals' low participation in building construction industry considering Osun State as case study. The paper assess the gender ratio among the participant professionals in building construction industry; identify the factors affecting female participation in building construction industry and examine areas where female can participate in construction industry. Data were collected through well structured questionnaire and analysed using relative importance index (RII). The findings revealed that managing motherhood and carrier simultaneously cum unsuitable rigid hours of working were the factors responsible for female professionals' low participation in building construction industry. It was therefore recommended that the Nigerian national construction policy should be revised in such a way that female professionals are given special consideration because of their peculiar nature, making the hours of working suitable for them and that construction employers should consider the establishment of child day care centres close to work sites. All these will help address adverse effects on the careers of female professionals so that they do not abandon their careers because of motherhood.

**Keywords:** *Professional, Building construction industry, Career, Motherhood, Participation*

## 1. Introduction

The construction industry is globally seen as one of the major contributors to the economic development of a nation. The industry is widely considered to be the world's largest industrial employer of labour with an estimation in excess of 111 million construction workers worldwide in 1998 (International Labour Organization (ILO) 2001). The linkages of the construction sector to all other sectors of the economy have been emphasized (Dansoh, 2005), and this corroborated the assertion of Hillebrand (1985), who posited that all the economic activities revolve around construction outputs.

Today's construction industry is conventional in employing women due to extreme gender stratification. Most of the women working in the construction industry carry out managerial, technical and specialized work while the employment of women at the professional level is very little and the data are limited to zero, but in many countries, these represent one percent of the labour force (Clark, 2005). In Nigeria, the National Population Commission (2012) recorded that Nigeria is estimated to have 167 million people, with 49% of the active age group assumed to be women and the National Bureau of Statistics (2006) revealed that about 70% of the women living in Nigeria are rural dwellers.

However, it is presumed that if women are not highly empowered, better economic growth of the country is less assured. Gender in Nigeria Report of 2012 affirmed that an investment in women and girls in Nigeria will increase productivity in this generation and will promote sustainable growth. Although

awareness has been created in the country over the past few years that something should be done to empower women and enable them to fight poverty by generating revenues and resources to ensure the development of the country's economy, women involvement in construction is abysmally low.

Women are detail oriented and this skill is required in project control/management. Moreover, experience shows that women executives are better communicators, more effective in decision-making and seek less personal glory than their male counterparts. Women generally face challenges as they advance in their careers, and this is most common in non-traditional occupations such as construction.

Considering the perceived unattractiveness of the construction industry, a low number of women are choosing careers in the construction industry due to several factors that affect career choice, resulting in the poor implementation of the provisions of the Employment Equity Act in Nigeria, lack of women empowerment and a shortage of skills in the construction industry. In spite of the many initiatives and the awareness created over the past few years, with respect to the significance of women participation in the industry, coupled with the efforts to balance the diversity and inequality in the industry workforce, women still remain a small minority of those working in the construction sector.

In Nigeria, the population of women in the industry represents only 0.2% of those in the construction profession. Ginige (2007) argued that one of the problems facing today's building and construction industry is skill shortage due to its inability to attract young women to pursue careers in the industry. Increasing women representation in the construction workforce is a reliable solution for bridging the skill gap. Women constitute about half of the population of the Nigerian State and are known to play vital roles as mothers, producers, managers, community developers/organizers etc.

Gender structure in the workplace environment (building firms inclusive), are based on differences rather than the individual characteristics of men and women. The general assumption is that women are less expert than men; hence, women tend to be at disadvantage in gender-neutral context. This is because gender stereotypes are linked to women's roles and status in the society, as women become more visible in positions of authority (Crawford, 2000; Carli, 2001; Cronin, 2004).

Amaratunga, et al. (2006) indicated that because the industry is male dominated, their values become the standard of the industry, such as extensive working hours, competition amongst colleagues, and self-sufficiency. Other issues include negative perceptions of women capabilities (Chun, Arditi and Balci, 2009); minimal recognition on project sites (Menches and Abraham, 2007); expectations to mimic males aggressive behaviours (Maskell-Pretz and Hopkins, 1997); absence of positive influences such as lack of role models/mentors (Yates, 2001); difficulty in finding a balance between personal goals and professional goals (quality of work life, family/work life balance) (Hatipkarasulu and Roff, 2011); slow career progression (English and LeJeune, 2012); high stress levels linking to career, lack of recognition and encouragement from supervisors, asked to do repetitive minor tasks, undervalued and low potential for career advancement (Loosemore and Waters, 2004); discrepancies between women's perceived societal roles and the image of the construction industry, unfair judgement of training needs, misjudged on performance compared with male counterparts, being restricted to clerical/administration roles (Dainty and Lingard, 2006).

Women react similarly to the world of works when one controls the spurious effect of systematic differences in the job field and rewards received by women in comparison with men - especially differences in income level (Alveasons and Billing, 2009; Stawiski, Deal and Rudderman, 2010; Pauli, 2011). Presently, gender issues in the workplace is now very intricate and puzzling.

Hence, several studies have been conducted on the issue both in developed and developing countries of the world (Crawford, 2000; Gray, 2001; Greenberg, 2004; Welle and Heilman, 2005;

Nwobodo, 2008). For instance, in Chicago, Crawford (2000) looked at the expectations of women in typical male jobs. In the psychological dynamics that drive the expression of discrimination in the workplace in the US. Helford (2007) revealed that gender discrimination is recognized as a problem by organizations, all of which are obligated by law to reduce it, and many of which believe that doing so will have a positive impact on the bottom line of their businesses.

The EOC says breaking gender barriers will help solve skill shortages. Therefore, construction employers need to access a wider pool of talent from a more diverse range of people in terms of gender in order to recruit and develop a high quality workforce that is motivated and skilled to meet growing construction needs. Hence, female professionals are needed at all levels, in management, design, trade skills and in all the various parts of the supply chain. Status of female professional in the construction industry (Adeyemi, Ojo, Aina and Olanipekun, 2006) revealed that women constitute only 16.3 percent of the workforce in the Nigerian construction industry, of which 50 percent are administrative staff, 10 percent employed as professional and management staff, and 2.5 percent as craftswomen. However, Construction Industry Training Board (CITB, 2005) observed that women still constitute only 9 percent of the workforce in the UK construction sector, of which 84 percent held secretarial posts, nearly 11 percent are employed in a professional capacity and the remaining are craft and trade level employees.

In order to meet these targets the industry cannot rely on recruiting the traditional male-dominated workforce. According to CIOB (2006), construction industry is facing a ‘demographic time-bomb’ that is, the pool of traditional male applicants is contracting and the current workforce is ageing leading to problems of skill shortage and recruitment. Therefore, there is a need to tap the talents of the ‘other half’ of the workforce, that is, the female professionals. This appears to be the driving both the individual and the organization.

In recent times, there has been rising global consciousness, both at the grassroots and policy levels, regarding the impact of gender issues on education and national development (Agule and Agwagah, 2007; Akinsowon and Osisanwo, 2014). This paper therefore examined gender ratio among the participant professionals, areas where female professionals can participate and factors affecting females professionals participation in the Building Construction.

## **2. Methodology**

The research design adopted for the study was a survey research. Survey research is one in which items are studied by collecting and analysing data from only representative of the entire group. The design was suitable and appropriate because the factors responsible for low female professionals participation in building construction industry could be determine by seeking the view of Building teams in the construction sites and female professionals in the built environments.

The instrument used for data collection was well structured questionnaire designed to elicit responses to answer the research questions. Out of three hundred questionnaires distributed, only two hundred and fifty were retrieved and the data generated was organized and analysed using Relative Important Index (RII).

## **3. Data Collection, Analysis and Presentation**

Table 1: Gender ratio among the participant professionals in building construction industry

<b>Gender</b>	<b>Frequency</b>	<b>Percentages</b>
Male	178	71.2
Female	72	28.8
<b>Total</b>	<b>250</b>	<b>100.0</b>

**Source: Field Survey 2018**

From Table 1, it could be deduced that the ratio of female professionals to their male counterpart is 1:2.5, which shows that for every single female professional in construction work, there is almost three male counterpart. It could be affirmed from this that there is low participation of female professionals in the construction industry.

Table 2: Factors affecting female professionals' participation in building construction industry

<b>Factors</b>	<b>N</b>	<b>Mini mum</b>	<b>Maxi mum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Ran king</b>
The factor of managing motherhood and carrier simultaneously	250	2.00	5.00	4.2800	.88156	1 <sup>st</sup>
Unsuitable rigid work hours	250	2.00	5.00	4.1200	.91785	2 <sup>nd</sup>
Sexual harassment by co males workers	250	1.00	5.00	3.4400	1.24802	8 <sup>th</sup>
Absence of sanitary facilities(restroom) in the construction sites for privacy	250	1.00	5.00	2.9600	1.14214	11 <sup>th</sup>
Women(females) feel unsafe if they are the only one on site	250	1.00	5.00	3.8600	1.06924	4 <sup>th</sup>
Females professionals are uncomfortable with using personal protective equipment	250	1.00	5.00	2.9800	1.11557	10 <sup>th</sup>
Disparity in remuneration and position in the construction sites	250	1.00	5.00	3.4800	1.12920	7 <sup>th</sup>
Cultural factors and working environment barrier	250	2.00	5.00	3.7800	1.07457	5 <sup>th</sup>
Unhealthy job relationship	250	1.00	5.00	3.2200	1.03589	9 <sup>th</sup>
Lack of female role models in the industry	250	1.00	5.00	3.5200	1.18218	6 <sup>th</sup>
Some tool handle size and weights are designed to accommodate the size and strength of men	250	1.00	5.00	4.0000	.92582	3 <sup>rd</sup>

**Source: Field Survey 2018**

Table 3: Areas where female professionals can participate in building construction industry

<b>Areas female professionals can participate</b>	<b>N</b>	<b>Mini mum</b>	<b>Maxi mum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Ran king</b>
Preparing building survey documents prior to any maintenance work	250	3.00	5.00	4.5000	.61445	2 <sup>nd</sup>
Preparation of budget for construction works	250	1.00	5.00	4.3600	.82709	4 <sup>th</sup>
Preparing programme of work for specific projects	250	3.00	5.00	4.4000	.72843	3 <sup>rd</sup>
Training of skills acquisition for fresh graduates in the industry	250	1.00	5.00	3.9800	1.03982	10 <sup>th</sup>
Carrying out managerial work on site	250	1.00	5.00	3.9600	.96806	11 <sup>th</sup>
Preparation o designs and specifications of architectural drawings	250	2.00	5.00	4.0000	.85714	8 <sup>th</sup>
Working with templates for the preparation of documents on site	250	2.00	5.00	4.1600	.86567	7 <sup>th</sup>
Site inspections	250	1.00	8.00	4.0200	1.20357	9 <sup>th</sup>
Teaching and research in the construction industry	250	2.00	5.00	4.1800	.91896	6 <sup>th</sup>
Preparing cost estimating in building works prior to site works	250	1.00	5.00	4.1800	.98333	6 <sup>th</sup>
Administrative work in the industry	250	2.00	5.00	4.2200	.91003	5 <sup>th</sup>
Writing technical reports of typical projects engaged in	250	2.00	5.00	4.3600	.85141	4 <sup>th</sup>

Health and safety officers for a construction activities	250	1.00	5.00	3.9200	1.02698	13 <sup>th</sup>
Project monitoring and evaluation exercise	250	1.00	5.00	3.9400	.99816	12 <sup>th</sup>
Contract documentation process	250	1.00	51.00	5.1800	6.68135	1 <sup>st</sup>

*Source: Field Survey 2018*

Table 2 shows the factors affecting female professionals' participation in building construction industry. The analysis identified to what extent the factors affecting female professional's participation in building construction industry and in the study, it could be deduced that the factor of managing motherhood and carrier simultaneously has the highest effect as it was ranked as the 1st by taking 4.2800 as the mean value followed by unsuitable rigid work hours as the 2nd rank with 4.1200 mean value while absence of sanitary facilities (restroom) in the construction sites for privacy as the 11th with 2.9600 as the mean value.

Table 3 shows the areas where female professionals can participate in building construction industry. It shows that contract documentation as the most importance area where female professionals can participate in building construction industry was ranked 1st with 5.1800, followed by Preparing building survey documents prior to any maintenance work with 4.5000, Preparing programme of work for specific projects with 4.4000 and Health and safety officers for a construction activities ranked 13th areas where female professionals can participate in building construction industry with 3.9200.

#### **4. Conclusion**

Based on the results of the study, it was concluded that the ratio of male is higher than that of the female in the construction industry. This is due to the facts that female professionals are been affected by factors such as managing motherhood and carrier simultaneously, unsuitable rigid hours of working and some tool handle size and weight are designed to accommodate the size and strengths of men are the major factors responsible for low female professionals participation in the building construction industry. However, the participation of female professionals can be improved in the construction building industry through working in areas like preparing building survey documents prior to any maintenance work, contract documentation process, preparing programme of work for specific projects and preparation of budget for construction work.

#### **5. Recommendations**

Following the conclusion of the study, the following recommendations were made:

- i) Young females should be made aware of the construction industry opportunities so as to encourage them to build their careers in construction from school stage in order to increase the number of professional females participating in future.
- ii) The Nigerian National Construction Policy should be revise in such a way that the females are given special consideration due to their peculiar nature by making the hours of working suitable for the female professionals in the construction industry.
- iii) Construction employers should consider the establishment of child day care centres close to the work sites to help address adverse effects on the careers of women (females) so that they do not abandon their careers because of motherhood.

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