

A REVIEW OF THE CHALLENGES OF WOMEN IN THE CONSTRUCTION INDUSTRY

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Article history:	Abstract:
Published: 10 th March 2022	The inclusion and fairness of women in today's modern society is an indicator of the socio-economic and cultural advancement of that society. Unfortunately, women make up just about 10% of the total workforce in the construction industry which is mostly due to the perceived notion that the construction industry is a man's world, as well as the hostile working conditions they encounter. Hence, this study seeks to investigate the challenges faced by the female gender in the construction industry, and to identify strategies to improve active involvement of the female gender in the construction industry. A literature review approach was adopted where data from peer reviewed academic publications were reviewed. Findings from this study grouped the challenges faced by the female gender in the construction industry into six categories (discrimination, culture, working condition, abuse, career development, and family commitments), and identified several strategies to improve active involvement of the female gender in the construction industry from literature. The study recommends prosecution of sexual harassment cases, flexible working conditions, and promoting education, training, and professional development for women.

Keywords: Challenges; Construction industry; Literature review; Strategies; Women

1. INTRODUCTION

Galea & Loosemoore (2006), theorized a social learning theory stating that Gender as we know is a perception of maleness or femaleness and is taught and learnt through education, interaction and socialization and determined by the societal expectations of the roles of women and men. Styhre (2011), states that, the construction industry has favoured the male gender historically because of the physical nature of the job. However, social stereotypes most times can reinforce a skewed gender workforce. Over the years there have been reoccurring debates on the role of gender in the construction industry. Clarke & Wall (2006), are of the notion that gender has always had an effect on the type of worked deemed acceptable for both sexes, stating that after the aftermath of the world war which led to shortage of men and women. Gender discrimination was at play then when women were excluded from construction projects in Britain and unskilled men were often promoted over skilled women.

The construction industry of most countries is one of the largest sector in terms of number of people employed continuously as a result of the constant construction done at all levels from initial phase to the maintenance. This industry like others has in past times been male dominated but has slowly seen the inclusion of the female gender with the dawn of modernity and the evolution of human perceptions and reasoning. However, despite the giant strides taken in this direction there still exist pockets of discrimination and issues against the female gender. In the Australian construction industry, for instance, women account for only 11% of the workforce and they leave the industry at a rate almost 40% higher than men (Turnbull, 2016). If the industry doesn't curb these issues and focus on its male workers it will ultimately miss out on a majority of the population as the number of females greatly outnumber that of males worldwide. There will be an unbalanced view in the infrastructural development as only one half of the community will be involved in the planning and decision process and also there will be a monotony of ideas (Agapiou, 2002).

This paper is aimed at reviewing the gender related issues in the construction industry giving the female gender priorities. The most prevailing gender issues in the construction industry ranges from discrimination, payment discrepancies, availability of jobs, harassment and a host of other issues (Fielden 1999). Hence, this paper cuts across all that has been highlighted by previous researchers and bodies of knowledge to know the most prominent issues and

also the best methods to curb them, therefore this study seeks to investigate the challenges faced by the female gender in the construction industry, and to identify strategies to improve active involvement of the female gender in the construction industry.

This paper uses data from previously published academic repositories for its data and has no primary data taken to conduct the research and draw out its conclusions. However the sources of data were carefully selected to cater to the aim and objectives of the paper.

2. REVIEW OF RELATED LITERATURE

As previously stated, there are varying issues related to the female gender that has been previously discussed by scholars. According to Kim et al. (2019), the construction industry is facing a shortage of skilled labour and managers. Morello et al., (2018) also states that as the demand for construction workers increase there is a need to hire and retain more women to fill up the void, however some persons may argue that the Men are capable of filling up that void, it has been proven that there are more females than males worldwide. Table 1 presents the projection of labour force participation. The table shows an additional 25% gap reduction by 2025.

Table 1: Projection of labour force participation

Country/region	2017 Projections			25 per cent gap reduction by 2025		
	Labour force participation			Additional labour force	Additional GDP	
	Men (%)	Women (%)	Gap (percentage points)	Millions	%	\$ Billions, PPP
World	76.1	49.4	26.7	203.9	3.9	5,767
Developing countries	82.6	70.3	12.3	7.8	2.0	31.0
Emerging countries	77.5	46.9	30.6	175.5	4.8	4,195
Developed countries	68.0	51.9	16.1	20.6	2.6	1,540
Northern Africa	74.1	22.9	51.2	11.4	9.5	301
Sub-Saharan Africa	76.3	64.6	11.7	11.1	2.2	109
Latin America and the Caribbean	78.3	52.7	25.6	17.4	4.0	445
Northern America	68.3	56.2	12.1	4.8	2.0	452
Arab States	76.4	21.2	55.2	7.8	7.1	372
Eastern Asia	76.8	61.3	15.5	27.3	2.5	1,013
South-Eastern Asia and the Pacific	81.2	58.8	22.4	15.9	3.5	425
Southern Asia	79.4	28.6	50.8	92.7	9.2	1,838
Northern, Southern and Western Europe	63.8	51.3	12.5	5.7	2.0	406
Eastern Europe	68.1	53.0	15.1	4.5	2.6	189
Central and Western Asia	73.5	44.1	29.4	5.3	5.7	216

Source: World Employment and Social Outlook – Trends for Women 2017. Participation rates and gaps for 2017 projections.

Fielden et al. (2000), argued that despite many females studying construction courses in tertiary institutions, the male dominated 'sexist' image of the industry will always discourage women from deciding to work in construction and they will eventually branch off into other fields. He also stated that real change will only occur when there is a shift in cultural mentality. The macho culture of the construction industry coupled with the strict male career model paths forced down on both sexes creates unrealistic expectations for the female gender because it doesn't account for broken/paused careers. The traditional practice forces women into a lifestyle of males whose wives do not have full time careers and can afford to handle the home affairs, and this causes a slow career progression for females (Dainty and Lingard, 2006). They are forced to either conform to the marginalized practice or drop out of the workforce entirely. Some of them strive to prove themselves and end up experiencing burnouts and are jeered at for that, the constant stress, burnouts, lack of progression and mockery leads many women into quitting the construction industry (Arditi et al., 2013). According to Naoum (2011), the masculine culture is one of the most cited reasons why females do no work in the

construction industry, and there has to be a structural and cultural change to strip down the culture and make the industry more appealing to both sexes.

Naoum (2011) also suggests that a company's organizational culture is a main reason for the acceptance and internalization of beliefs by its workers, therefore the mindset of the construction industry being a male dominated field has been largely perpetuated by the organizations too, if organizations enact policies to promote female values, over time it will become the new normal. Stress is also one of the things that come to mind when the construction industry is mentioned. This overbearing level of stress is highly detrimental to the physical and mental wellbeing of individuals. Researches have stated that because of the unique challenges women face in an internalized male dominated field, they, more than men, often report more psychological injuries and high levels of stress (Bowen et al., 2014). Some of the psychological injuries experienced by females stem from the sexual harassment they experience from clients and co-workers alike. Additionally, the flaring gender discrimination in the industry is an additional reason, they often experience a hostile work environment and un-supporting organizational climate. They face ridicule as they strive to achieve the right balance between work and home and a personal life (Goldenhar et al., 1998).

Barreto et al. (2017), identified 20 invisible barriers that women face in their careers from a survey in the Peruvian construction industry. Some of these include fewer career opportunities than males, men often view women as being weak, delay in their careers by maternity leaves, inflexible work schedules, lack of childcare programmes, and lack of provision for career breaks. From the analysis five underlying factors were uncovered: harsh conditions in the construction industry, high level of competition in the industry, male oriented labour market, unfavourable perception of females in the industry, and detrimental issues for being a woman. Segueing et al. (2009), supported this and stated that most women opt out of pursuing senior management positions in order to keep their work life balance. The demand to work long hours and many days away from home coupled with the demands of running a home will eventually take its toll and cause burnout and mental health issues. Because of this, women in the construction industry often reported low levels of job satisfaction and high levels of job and life conflicts.

Societal perceptions based on gender is just one of the barriers to females in the construction industry. Dainty et al. (2000), did a deep dive into this issue by interviewing males and females in the industry to compare their careers and career paths and they discovered eight major issues that need to be solved in order to facilitate the progression of women in the construction industry and they are:

1. Entrance to the industry
2. Entrance to organizations
3. Context of a career in construction
4. Structural organizational processes
5. Cultural organizational processes
6. Individual characteristics
7. Career strategies
8. Future expectations, opportunities and threats

After a thorough mapping of the career progression of their interviewed workers in the industry, Dainty et al. (2000), discovered that women progressed on an average of one level behind their male counter paths of similar experience and age. They also stated that all efforts to attract more women into the construction industry should be halted until the existing issues surrounding the industry are solved. Table 2 presents a review of 10 related literature and their contribution to knowledge on female gender issues in the construction industry.

Table 2: A review of related publications

S/No	Authors	Title	Methodology	Contribution
1	(Adenugba & Oderinde, 2017)	Wage Differentials and Discrimination Against Women in Informal Construction Sites: A Study in Ibadan, Nigeria	patriarchal theory	<ul style="list-style-type: none"> • Bricklayers consider gender factor while issuing wages on site. • There exists wage discrimination between men and women-laborers who perform same work. • Bricklayers are more satisfied with men-labourers' work than women
2	(Oloruntoba & Olanipekun, 2021)	Socio-Psychological Motivational Needs Of Unskilled Women Working In Nigeria's Construction Industry	Interview	<ul style="list-style-type: none"> • Prevalent challenges on construction sites are sexual harassment, verbal abuses, unfavourable working conditions, and stress

3	(Okeke, 2017)	Nigerian Culture: A Barrier To The Career Progress Of Women In Nigeria	Review	<ul style="list-style-type: none"> • HRM practices in Nigeria must address gender inequality. • Nigerian organisations should have a culture that is inclusive
4	(Haruna et al., 2016)	An Overview Of Challenges Of Women's Participation In The Practice Of Building Profession In Nigeria	Questionnaire survey	<ul style="list-style-type: none"> • Women participation in the building industry in Nigeria is hampered by inadequate job security in the private sector, work stress and fatigue, inadequate pay, responsibility to family, among others
5	(Agapiou, 2002)	Perceptions of gender roles and attitudes toward work among male and female operatives in the Scottish construction industry	Questionnaire survey	<ul style="list-style-type: none"> • Women are now actively encouraged to participate, legally protected against discrimination and more highly represented in non-traditional areas of the construction industry.
6	(Baruah, 2010)	Gender and Globalization Opportunities and Constraints Faced by Women in the Construction Industry in India	Survey	<ul style="list-style-type: none"> • Small number of women in the construction industry are breaking down some entrenched social and cultural barriers
7	(Salignac et al., 2018)	Institutional entrepreneurs driving change: The case of gender equality in the Australian construction industry	Interview	<ul style="list-style-type: none"> • Gender equality is an important point of focus for companies • However, discrepancies remain between perceptions and reality as well as people's level of readiness
8	(Norberg & Johansson, 2021)	"Women and "Ideal" Women": The Representation of Women in the Construction Industry	Corpus linguistic methods	<ul style="list-style-type: none"> • There are certain qualities that women need to acquire to succeed in the industry. • Sexual harassment is a recurring theme for women in their workplace.
9	(Okeke et al., 2018)	Assessment of Women Quantity Surveyors' participation in construction industry in Nigeria	Questionnaire survey	<ul style="list-style-type: none"> • The number of females in industry is very negligible. • The predominant factors affecting female participation strength; child bearing/labour
10	(Afolabi et al., 2019)	Balancing the Female Identity in the Construction Industry	Questionnaire survey	<ul style="list-style-type: none"> • The study revealed that anti-feminine characteristics exist in the industry in form of work growth gap, position/pay gap and symbolic intimidation. • The study showed that there is the need for attitudinal changes in the bullying culture and the sexual orientation towards co-workers

3. METHODOLOGY

This study aimed to investigate the challenges facing the female gender in the construction industry, and identify strategies to improve active involvement of the female gender in the industry. Hence, using a literature review approach, the authors reviewed relevant and related studies to achieve the research objectives. A literature review according to Baumeister & Leary (1997); Tranfield, et al. (2003); Snyder, (2019) is a method of collecting and summarizing previous research. The findings from such review can serve as a foundation for knowledge creation, produce policy and practice recommendations, give evidence of an effect, and, if done correctly, have the potential to generate new ideas and directions for a certain field. Additionally, a literature review can address research topics with a power that no one study has by combining findings and viewpoints from multiple empirical studies. Previous studies such as Olorunfoba & Olanipekun, (2021); Yusuf et al., (2021); Norberg & Johansson, (2021) adopted the literature review methodology technique to address research objectives. This paper thus presents findings from previous studies related to gender issues in the construction industry where the authors used a qualitative, quantitative, or a combination of both approaches to achieve set objectives.

4. DISCUSSIONS

4.1 The challenges faced by the female gender in the construction industry

A casual examination of the many construction fields around the world, reveals the dominance by males, and it is seen as a male domain requiring brute strength and a good tolerance for outdoor conditions, inclement weather and bad language (Haruna et al., 2016; Agapiou, 2002). Nigerian women, just like in countries around the world, experience a great deal of prejudice, which limits their ability to reach their full potential on an equal footing with males. Due to their household responsibilities, low educational attainment, poverty, biases against women's employment in specific sectors of the economy or types of work, and discriminatory compensation practices, women are far from having equal rights in the labor market (Adenugba & Oderinde, 2017). Apart from these, several other factors exist in literature. Hence, this study categorized these factors into six major categories, namely: discrimination, culture, working condition, abuse, family commitments, and career development as shown in Table 3

1. Discrimination

Generally, occupational discrimination and exploitation is a major challenge facing the female gender around the world. In Nigeria, Adenugba & Oderinde (2017) posits that when calculating work pay on site, bricklayers take gender into consideration. Hence, regardless of whether or not the labour is similar, men and women-labourers are paid differently on the job in Nigeria. Additionally, Rajanna (2015) also supported that unskilled women workers are paid lesser than men in the construction industry. Contrarily, Smiley (2011) states that there was no disparity between entry-level pay and professional advancement within the U.S. construction industry. Another major issue is gender stereotyping which affects the kinds of role female can engage in (Connell et al., 2005; Cettner et al., 2008). Adenugba & Oderinde (2017) further states that gender stereotypes determines the type of job performed on site, thereby creating inequality in wages. Adequate financial compensation and other non-financial incentives should therefore be provided to motivate them. Also, the leaders of organizations or construction sites should set the pace and ensure payments and job distribution solely on the level of work done and skills rather than gender, this will encourage the men with skewed views to be reoriented or 'step up' to prevent their jobs been taken from them by the other gender. It will also provide dignity in labour for the females and encourage them to apply for more construction jobs.

2. Culture

One of the major challenges females face is the culture of the construction industry which affects their career development. This is evident right from joining the industry, up to the top of the organization's hierarchy (Elvitigala et al 2006). The study further states that construction firms form competitive power culture which marginalizes the contribution of women. Furthermore, Elvitigala et al 2006 concluded that organizational cultures causes problems for women in the industry. The construction industry is also characterized by a macho culture, where argument, conflict and crisis is a norm (Gale, 1994). Hence, women are frequently exposed to unfriendly working conditions. The societal culture and its perception of women and what they should do and not do is also a major problem, women are often ostracized in communities on the advent of showing interest into 'male jobs', a reconditioning of the society can be done if the organization promotes a female friendly culture within its walls. Over some time, this will become the norm and make it more acceptable for females to engage in the construction activities and it will be viewed as a profession for the both sexes.

3. Working conditions

Studies of Chittibabu (2007); Lekchiri et al (2020); Baruah, (2010) supports that absence or shared lavatories with men, operating in unsatisfying environments, and lack of care facilities for women with children are challenges unskilled women encounter on construction sites which affects their output. Women are exposed to more social vices than men, example of such is rape and sexual harassment due to unsecure working environments. More so, the perpetrators of such evils perceive women as weaker gender and prone to such attacks. As earlier discussed, women are being discriminated in the industry due to their small numbers; therefore many construction sites lack female toilet or feel women could share toilet with men which exposes them to toilet diseases. The provision of day-care centres that will cater for women with little children is a good working condition strategy for the female gender. Child care is a major reason why women stay back from construction sites for a long time after maternity, because they believe their children are too tender to be exposed to site activities. Therefore, an adequate provision of childcare support will definitely encourage women to resume work after six months of child birth, just like what is obtainable in other sectors.

4. Abuse

The extremely high rate of sexual related harassment against women is not peculiar only to the construction industry. There exists a large pool of literature backing several types of sexual abuses against women in the construction industry (Agapiou, 2002; Afolabi et al., 2019; Oloruntoba & Olanipekun, 2021). This is because men often see women workers as intruders and use abuses to keep them out of what they see as a male territory (Afolabi et al., 2019). Besides from sexual abuses, women are also physically and verbally abused in the construction industry (Baruah, 2010; Oloruntoba & Olanipekun 2021; Norberg & Johansson, 2021).

5. Career development

Studies have shown that men experience a smoother career progression than female in the construction industry (Lynch, 2007; Smiley, 2011). Rosa et al. (2017) however, noted that through mentorship, women could be assisted to overcome career related issues. Evidence form Barnabas et al. (2009) states that there exists an unequitable and favourable conditions to acquire addition skills in the construction industry. This is usually due to households responsibilities. Women are usually at disadvantage when opportunity arises to up-skill especially when they have to leave their family behind for a long period of time. Additionally, women are always being looked down upon or practically neglected in the construction industry there by killing their morale or slowing down the career of a prospective successful built environment professional.

6. Family commitments

As widely known, the female gender is generally responsible for household maintenance. Unlike men, women combine these responsibilities as well as family care, pregnancy, and child care (Azhar & Griffin, 2013) with tiresome construction roles. These most times affects their productivity when compared to men on the same job (Rajanna, 2015). Many construction professionals face a conflict between work and family duties that is more intense for women than for men (Ahmed and Agboola, 2020).

Table 3: Categories of the factors affecting the female gender in the construction industry

S/No	Category	Factors	Source
1	Discrimination	Biological Gender stereotypes Male aggressive behaviour habits Low wages Employment security	Connell et al. (2005); Cettner et al. (2008); Ross-Smith et al. (2010); Kalpanadevi et al. (2013); Rajanna (2015); Adenugba & Oderinde, (2017); Kumar (2013); Maneesh and Jasna (2017); Baruah (2010). (Ahmed & Agboola, 2020)
2	Culture	Cultural beliefs Traditional beliefs Men's world assumption Socio-cultural/religion Construction organizational culture Masculine culture	Sang & Powell (2012); Toor et al. (2018); Haruna et al., (2016); (Elvitigalage et al., 2006); Ross-Smith et al. (2010)
3	Working condition	Absence/Shared toilets with males Dirty working environment Unfavourable working condition Unsecured working environment Lack of basic welfare facilities Lack of social security	Baruah, (2010); Lekchiri et al (2020) Kumar et al. (2013); Kalpanadevi et al. (2013); Oloruntoba & Olanipekun (2021); (Haruna et al., 2016); (Gogoi, 2020)
4	Abuse	Sexual harassment Physical abuse Verbal abuse	Agapiou (2002); (Afolabi et al., 2019); (Oloruntoba & Olanipekun 2021); (Ahmed & Agboola, 2020)
5	Career development	Limited opportunities for up -skilling Lack of career progression Training condition	(Rosa et al., 2017); Barnabas et al. (2009); Afolabi et al., (2019); Azhar and Griffin, (2013); Smiley (2011)
6	Family commitments	Family/children issues Child care Child birth Pregnancy	Afolabi et al., (2019); Azhar and Griffin, (2013); (Ahmed & Agboola, 2020)

4.1 Strategies to improve active involvement of the female gender in the construction industry

Several factors hinder the active participation of the female gender which has been identified in the previous section. It is therefore imperative to deploy workable strategies to increase female gender participation in the construction industry and boost their productivity. One of such important strategy is motivation according to Thwala and Monese

(2012) which helps people meet certain objectives. This process energizes, channels, and sustains behavior and performance to yield positive results. In this context, provision adequate motivation through top management or mentorship, and incentives (financial and non-financial) would encourage more women participation. Several studies from literature (Haruna et al., 2016; Baruah, 2010; Jimoh et al., 2016; Afolabi et al., 2019; UN Women Report, 2018) have identified numerous strategies that could help facilitate the active role of the female gender in the construction industry. Table 4 presents some of these strategies identified from five (5) major studies.

Table 4: Strategies to improve active involvement of the female gender in the construction industry

S/No	Source	Strategies
1	(Haruna et al., 2016)	<ul style="list-style-type: none"> • Employment of more women builders in ministries and parastatals related to Building, Land, Housing and physical infrastructure • Patronizing women practicing builders through contract awards as contractors or consultants • Encouraging women into taking up lecturing, teaching and research in higher institutions • Postgraduate scholarships to women building graduates
2	(Baruah, 2010)	<ul style="list-style-type: none"> • Payment of stipends • Infrastructural and technical assistant • Placements on large-scale infrastructure projects • Scaling up access to training and certification
3	(Jimoh et al., 2016)	<ul style="list-style-type: none"> • Making young women aware of opportunities in construction • Extending the influence of women in construction • Better representation of women • Equal opportunities, policies and procedures • Favourable selection criteria and recruitment methods
4	(Afolabi et al., 2019)	<ul style="list-style-type: none"> • Adequately funded female mentors/role model programmes • Improved legislations and policies • Prosecution of sexual harassment cases • Flexible working conditions • Support from professional bodies and unions
5	UN Women Report (2018)	<ul style="list-style-type: none"> • Establishing high-level corporate leadership for gender equality • Fair treatment at work, including respect and support human rights and non-discrimination • Ensure the health, safety and well-being of workers • Promoting education, training, and professional development for women

5. CONCLUSION AND RECOMMENDATIONS

Traditionally, women are generally perceived to be nation builders whose responsibilities start from smaller family units. Hence, the inclusion and fairness of women in today's modern society is an indicator of the socio-economic and cultural advancement of that society. Unfortunately, women make up just about 10% of the total workforce in the construction industry (Lewis & Shan, 2020). This is mostly due to the perceived notion that the construction industry is a man's world, as well as the hostile working conditions they encounter. This study through a literature review identified and grouped the challenges encountered by the female gender into six (6) major categories. These are; discrimination, culture, working condition, abuse, career development, and family commitments. The study also extracted factors that could improve active involvement of the female gender in the construction industry from literature, most of which can be achieved with a revised organizational culture and structure. This study recommends the implementation of the compiled strategies to improve active involvement of the female gender in the construction industry.

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