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Article

# Investigating the mechanisms to close gender inequality in Nigeria's construction consultancy participation to achieving sustainable development Goal 5

**Andrew Ebekozien[1,2,3,4,5,*], Mohamed Ahmed Hafez Ahmed[1], Wellington Didibhuku Thwala[2], Clinton Aigbavboa[3], Mohamad Shaharudin Samsurijan[4]**

[1] Department of Engineering, INTI International University, Nilai 71800, Malaysia
[2] Faculty of Engineering, Built Environment and Information Technology, Walter Sisulu University, Eastern Cape 5660, South Africa
[3] Department of Construction Management and Quantity Surveying, University of Johannesburg, Johannesburgn 2092, South Africa
[4] Development Planning and Management, School of Social Sciences, Universiti Sains Malaysia, Gelugor 11700, Malaysia
[5] Department of Quantity Surveying, Auchi Polytechnic, Auchi 312101, Nigeria
*** Corresponding author:** Andrew Ebekozien, ebekoandy45@yahoo.com

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**Abstract:** The target date for achieving the 2030 UN Agenda [Sustainable Development Goals (SDGs)] is fast approaching. The construction sector is critical to achieving many SDGs, including Goal 5. Studies regarding achieving Goal 5 (Gender Equality) in the construction industry, especially women's consultancy participation in developing countries, are scarce and complexly interrelated. Societal problems and divergence may have contributed to this. Therefore, this study explores issues hindering gender equality and suggests measures to promote more women construction consultants through policy to improve achieving Goal 5 in Nigeria. The research employed face-to-face data collection via a qualitative mechanism to achieve this. The study covered Abuja and Lagos. It accomplished saturation at the 20th participant. The research utilised a thematic method to analyse the collected data from knowledgeable participants. The perceived hindrances facing Nigerian construction consultants' gender equality were clustered into culture/religion-related, profession-related, and government-related encumbrances. Achieving Goal 5 will be a mirage if these issues are not addressed. Thus, the study recommended measures to motivate women to study construction-related programmes and employment opportunities, including consultancy services slots through programmes and policy mechanisms to achieve Goal 5. As part of the implications, the study suggests that Nigerian construction consultants and other stakeholders need to make feasible improvements to achieve gender equality (Goal 5).

**Keywords:** construction industry; gender equality; hindrance; Nigeria; sustainable development goal: Women

## 1. Introduction

The 2030 Agenda for Sustainable Development (SD) adopted by the UN Member States in 2015 was a pledge to transform the world, including inclusiveness regarding environmental, social, and economic aspects of the SD (UN, 2015a). The 2030 Agenda generated 17 SDGs with targets and indicators for each goal. The 17 SDGs define the aspirations of the member countries with a focus on goal-based global governance (Eden and Wagstaff, 2021; Fukuda-Parr, 2014). This includes Goal 5 (Gender Equality). Fukuda-Parr and McNeill (2018, p. 6) affirmed that global governance that focuses on goals "*translates norms from the language of words to that of numbers, coupled with setting time-bound targets.*" However, members are encouraged to

ensure the goals are achieved through the indicators and targets. Eden and Wagstaff (2021) stated that the SDGs' progress could be faster. The voluntary and soft approach contributed. Hence, criticisms and concerns of stakeholders were reported in the January 2020 editorial in Nature (2020), which opined that two targets may be close to being accomplished before 2030. Eden and Wagstaff (2021) identified inadequate funding (US$2.5 trillion estimated shortfall) and lax government implementation as possible causes. Breuer et al. (2019) asserted that the inability to translate many targets into measurable indicators could contribute to failure to meet the goals. This study focuses on Goal 5 (Gender Equality).

The UN (2015a, p. 14) avowed that Goal 5 aim is to "…. *achieve gender equality and empower all women and girls*." Gender equality was represented in the previous UN working document (2000–2015 Millennium Development Goal). It was transformed into SDG 5 (UN, 2015b). the essence of Goal 5 is to accomplish gender equality and empower girls and women by eradicating gender discrimination, inequalities, and vehemence against womenfolk (UN, 2015a). In the 90s, women in paid employment besides agriculture accounted for 35% and moved to about 41% (Adeosun and Owolabi, 2021). This is significant progress, but there is space for improvement to enhance inclusion and eliminate discrimination against the female gender. Studies (Adeosu and Owolabi, 2021; Worsdale and Wright, 2020) opined that gender inequality may enhance economic growth. This submission corroborated Adegbite and Machethe (2020) and Archibong (2018). They reported that the International Monetary Fund found that bridging Nigeria's gender gap is critical to improving economic progress. This is debatable. However, there is a different view. Falk and Hermle (2018) and Kleven and Landais (2017) found that gender inequality insignificantly impacts the economy.

In Nigeria, tradition and culture are factors that influence gender equality. Agbasiere (2015) and Azuakor (2017) asserted that certain parts of the country (southeast) do not include girls or women in a will when sharing landed properties. The trend is changing in some parts of the south-south and has increased the advocacy by the NGOs and government making a case for girl child training, including higher education and skills acquisition (Connell et al., 2020). It will provide equal opportunities with their counterparts in the future. Adeosun and Owolabi (2021) affirmed that women dominate the voluntary job industry in Nigeria. It was projected that the economic value of women is about 30% of the gross national product (UNDP, 2015). Adeosun and Owolabi (2021) found that Nigerian women, including women construction consultants, face discriminations that limit their total capacity. For this study, gender is described as the roles, attributes, activities, behaviours, and prospects that any community considers suitable for boys and girls and men and women (World Health Organisation, 2020). Also, UNDP (2013) described gender inequality as the disparity between the female and male gender. The inequality concept is broad. Inequality has many attributes. This includes social and economic segregation. Para-Mallam (2017) identified some factors that create a gap in gender-based earnings. This includes skill acquisition, education, physical structure, occupation, and industry segregation. These variables contribute to differences in earnings.

Despite the benefits of workplace women's contributions to the economy, there are still challenges regarding sustainable careers of women construction consultants in

Nigeria's construction industry. It may become a threat to achieving Goal 5. The COVID-19 pandemic that lasted for over 18 months has compounded achieving most SDGs (Ebekozien and Aigbavboa, 2021; Ebekozien et al., 2023). Stakeholders in the construction industry have a critical role in achieving many SDGs, including Goal 5. Studies regarding achieving Goal 5 (Gender Equality) in the construction industry, especially women's consultancy participation in developing countries, are scarce and complexly interrelated. Besides Sertyesilisik (2022), that focused on how women's employment can improve achieving SGDs but the insufficient underpinning of Goal 5, others focused on women's under-representation in the sector (Adeyemi et al., 2006), balancing women identity in the Nigerian construction sector (Afolabi et al., 2019), women empowerment (Adeosun and Owolabi, 2021), Nigerian women's work-life experience in the industry (Tunji-Olayeni et al., 2021), and women entrepreneurship and its implications to the economy (Gawel and Mroczek-Dabrowska, 2022). In Ghana, Sarfo-Kantankah (2021) found that women are broadly understood as vulnerable and disadvantaged. Thus there is a need for increased political awareness and gender equality, including in the construction sector. In South Africa, English and Hay (2015) and Norberg and Johansson (2021) found changes in values and attitudes as perceived issues facing women in the construction industry. Several studies reveal that gender-biased structures and attitudes persevere in construction. In the UK, Suresh et al. (2023) identified issues facing women in the construction industry's career. Similarly, 22 issues were identified in the USA as hindrances facing women construction workers (Pamidimukkala and Kermanshachi, 2022).

Regarding the research gap, in the literature reviewed, there appear to be insufficient recent studies in developing countries' construction industries, specifically on women construction consultants, displaying if these issues can influence Goal 5 (Gender equality) in less than a decade in Nigeria. Also, to investigate if Nigerian women practicing as construction consultants are still facing these challenges in the present day with the government implementation of the adopted National Gender Policy in 2006 and the National Human Rights Commission (established by the NHRC Act, 1995 as amended), which aligns with the Agenda 2030. Hence, there is a need to appraise women construction consultants in practice participation regarding sustainability and growth in their careers as private consultants. Also, studies concerning the difficulties women construction consultants face are scarce, if any. This study will fill these gap. Societal problems and divergence may have contributed to this. Hence, this research investigates issues hindering gender equality and suggests measures to promote more women construction consultants through policy to improve achieving Goal 5 in Nigeria. The study will accomplish the main aim through the following objectives:

1) To evaluate the participation of women construction consultants in practice;
2) To investigate the perceived hindrances facing women construction consultants in practice;
3) To suggest measures to improve women construction consultants in practice through policy to improve achieving Goal 5 in Nigeria.

## 2. Literature review

### 2.1. Gender gap in the construction industry

The intensive nature of the industry has made it famous for gender inequality across different fields. The civilisation trend has created some of the careers in the industry attractive choices for women. For this study, the professions are Quantity Surveying, Engineering (Structural, Transportation, Water, Mechanical, and Electrical), Architecture, Building Technology, Urban Planning, and Surveying. The civilisation trend has positively bridged the gender gap by increasing women's workforce and men's contribution to domestic activities. Despite the increasing number of women in the workforce, there is a gender gap in income from the same work schedule (Ravazzini and Chesters, 2018). This scenario should be improper. Amado et al. (2018) opined that equal pay for work of equal value is a pertinent attribute of an acceptable system. This corroborated Fatukasi and Ayeomoni (2015), who discovered the impacts of income disparity on Nigeria's health indicators. They found that income disparity significantly influences health indicators. Similarly, Osunde (2015) adopted data from the International Labour Organisation that covered male and female workers' labour markets. Osunde (2015) found that labour market demand favoured men more than female. In the United Kingdom, Opoku and Williams (2019) found that gender prejudice encumbers the career development of females in the industry. Addressing this gap has become pertinent because of the threat to gender equality, a component of the SDGs. Suresh et al. (2023) suggested the need to make viable measures to improve women's intake in the industry. In Nigeria, the National Gender Policy (2006) explained that gender equality is a development technique for mitigating poverty. This is pertinent because it is a prerequisite for the accomplishment of SD. However, Afolabi et al. (2019) ranked the Nigerian construction industry among the top gender-segregated sectors with anti-feminine attributes in the work growth gap, symbolic intimidation, and pay/position gap. Adogbo et al. (2015) found that Nigerian women are under-represented in the industry rather than from the perspective that it impacts achieving Goal 5.

Several local and international literature discuss women's inequality in the construction industry. This includes the Banwell (1964) Report, the Egan (2002) Report, Construction 2025 (2013), the UN SDGs (2017), and the Industrial Strategy Construction Sector Deal (2018). This implies that this inadequacy is a long-term issue and may still exist even with the government's implementation of the adopted National Gender Policy in 2006 and the NHRC, which aligns with the 2030 Agenda. The labour-intensive nature of the construction industry suggests that women cannot complete any work within the industry, including professional services. Aboagye-Nimo et al. (2019) discovered that the construction industry's women were bullied, afraid to make a complaint, and treated poorly. Some of these man-made hindrances can be mitigated or prevented if the working environment is friendly and accommodating (McKinsey and Company, 2015; Suresh et al., 2023). The industry has embarked on initiatives, but a lot is still needed universally. In China, Khan et al. (2022) discovered that authentic leadership can increase work engagement and mitigate emotional exhaustion in women leaders. Women should be encouraged to

hold top leadership and managerial positions. McKinsey and Company (2020) affirmed that enhanced flexible working is vital to retaining women in the industry and should be encouraged and sustained. Suresh et al. (2023) identified some initiatives to initiate change and complement women's sustainability in the industry. This includes the National Association of Women in Construction (NAWIC, 2020), International Women in Engineering Day (WES, 2020), Dare to Be Different (D2BD, 2020), and the WISE Campaign (WISE Campaign, 2020).

### 2.2. Sustainable development Goal 5

Studies view the 2030 Agenda (17 SDGs) as an example of inherently unsolvable; thus, the solutions could be bad or good, not wrong, or right (Head, 2019). The SDGs are '*systemic, complexly interrelated and materialise at the interface between public-private and profit and non-profit interests. They are wicked by nature and design*' (van Tulder, 2018, p.36). For this study, the focus is on SDG 5 (Gender Equality), which says, "…*achieve gender equality and empower all women and girls*'…" (UN, 2015b, p. 14). The United Nations reported that Goal 5 is disintegrated into nine targets and 14 indicators. Also, ten of the SDGs include gender-specific indicators (UN, 2019). This implies that Goal 5 is significant, and cross-cut SDG in the 2030 Agenda. Gender equality emphasises the need for both (men and women) to access the same rights, privileges, opportunities, and benefits (UNCTAD, 2016). OECD (2017, p. 3) defined gender equality as a "*fundamental human right and the keystone of a prosperous, modern economy that provides sustainable, inclusive growth.*" Gender equality means equal handling of men and women in society and office (Eden and Gupta, 2017; UNCTAD, 2018; UN Economic Commission for Europe, 2019). The study focused on workplace gender concerning job placement as women construction consultants in practice for sustainability and continuation. Suresh et al. (2023) and UNCTAD (2014) identified work-life balance issues, culture, and traditions that treat women and men inequitably, gender-based labour market dissection, wages gap, and gender stereotyping and discrimination as the causes of gender inequality. Eden and Wagstaff (2021) found that office gender inequality suffers from complications. Several causes may have contributed. This includes an inadequate dominant solution and intricate connection with other societal problems. Regarding SDG 5 and the construction industry relationship, Sertyesilisik (2022) found that gender inequity and fairness via an increase in women's employment in the construction industry can improve achieving SDGs, including Goal 5.

## 3. Research method

This study focuses on participants' perception understanding to explore the in-depth issues facing women construction consultants regarding gender equality in the industry. Ebekozien (2020a) and Suresh et al. (2023) affirmed that gaining participants' perception knowledge is pertinent using a methodology that activates participants' inner opinions and emotions. Aigbavboa et al. (2023a; 2023b), Ebekozien (2020b), and Ebekozien et al. (2021a, 2021b) avowed that semi-structured interviews provide the participant the privilege to give insight and in-depth into their experiences. Hence, the study adopted semi-structured interview questions, as presented in Appendix. This

aligns with Opoku and Williams (2019) and Suresh et al. (2023). Opoku and Williams (2019) conducted semi-structured interviews of 12 participants to investigate women's leadership gap regarding gender prejudice in the United Kingdom construction companies. Suresh et al. (2023) adopted a semi-structured interview of 31 participants to investigate women's challenges regarding the Equality Act 2010 in the UK construction industry. Hence, it is essential to understand the relevance of sampling regarding the acceptable responses that represent the study area (Saunders et al., 2019). The researchers adopted a qualitative method to collect interviewees' opinions, advice, and experiences from the key experts. With the adopted approach, the researchers analysed data to identify different and common patterns and generate suitable conclusions.

Interviewing is one of the mechanisms used for qualitative data collection where the interviewee answers questions the investigators ask about an issue, scenario, or incident (Griffee, 2005; Ibrahim et al., 2022). The researchers adopted a purposive sampling technique. Remenyi et al. (1998) and Creswell and Creswell (2018) opined that purposive is a type of non-probability sampling that allows the investigators' subjective judgements to be used in sample selection. The researchers obtained primary data through 22 semi-structured face-to-face interviews. The first phase was held in Lagos between September and October 2023, and the 2nd phase was held in Abuja during the Nigerian Institute of Quantity Surveyors 30th Biennial Conference and General Meeting, from 21st to 25th November 2023 at Nicon Luxury, Area 11, Abuja, as presented in **Table 1**. The face-to-face interviews were recorded using an Android phone with the participants' permission. The exercise followed the ethical consideration to concealed interviewees information and would be presented as collation of analysed data. The researchers transcribed verbatim and attained saturation at the 20th interviewee. Saunders et al. (2019) described saturation as when no new perceptions are created through additional data. The study aligns with Creswell and Creswell (2018). They clarified that sampling comprises 20—30 interviewees before data saturation. For this study, after the 20th participant, the researchers discovered no new concept from the participants. It implies that data saturation occurred before the 22nd interview. This was evident as information became repetitive. On average, the interview took 65 min.

**Table 1. Participants background.**

| Main details | Results |
|---|---|
| Number of participants | 22 women participants |
| Years of experience | Above ten years |
| Type of firm/rank | Private practice/minimum of a resident consultant |
| Gender equality and female construction consultants' awareness | Knowledgeable |
| Location | Lagos (P1, 2, 5–7, 10–12, 15, 16, 19, and 20) |
| | Abuja (P3, 4, 8, 9, 13, 14, 17, 18, 21, and 22) |
| Academic qualification | Minimum of HND/BSc./B.Tech. |
| Professional qualification | Minimum of corporate/associate members |

**Table 1.** (*Continued*).

| Main details | Results |
|---|---|
| Construction discipline | Quantity Surveyor (P1–P4) |
| | Architect (P5–P9) |
| | Engineer (P10–P14) |
| | Project Manager (P15–P18) |
| | Construction Manager/Builder (P19–P22) |

Source: Authors work.

The research inter-rater reliability was 70%, and the conventional method was used. It is pertinent and aligns with Kouner's (Burns, 2014) because more than one researcher was involved in data collection and coding. It assists in determining the same data agreement received by different raters, applying the same conditions. The investigators adopted thematic analysis to analyse the collected data. Suresh et al. (2023) avowed that thematic analysis is a technique employed to recognise, analyse, and define a data set that has been collated. It provides a flexible system and can be modified (Aigbavboa et al., 2023b; Nowell et al., 2017). The data were manually analysed. The lead researcher read the 22 documents several times. **Table 1** shows the 22 participants' details. It reveals that the participants were construction professional women from Lagos and Abuja with over ten years of experience in construction disciplines (Quantity Surveyors, Architects, Engineers, Project Managers, and Construction Contractors/Builders) and educational levels. These cities have construction activities at the top (Ebekozien et al., 2021b). The study generated 78 codes from the 22 manually analysed documents. The study's objectives helped develop the three main themes from the 12 sub-themes. Based on the wide range of participants knowledge, the researchers covered the following main themes:

- Women construction consultant in practice;
- Perceived hindrances facing women construction consultants in practice;
- Measures to improve women construction consultants in practice through policy to improve achieving Goal 5 in Nigeria.

## 4. Findings

All engaged participants were adults and women. The interviewees had a minimum of 10 years of experience in the construction industry. The years of experience were ideal for the in-depth narrative of their encounter regarding gender equality in the industry, specifically regarding private practice consultancy services. Remarkably, the interviewees were all registered professional members of their various bodies, and the least academic qualification was a Higher National Diploma. This would add value to the findings' reliability. The 22 participants held a top-rank position, with the lowest rank being a resident consultant. The construction consultants include four Quantity Surveyors, five Architects, five Engineers, four Project Managers, and four Construction Managers/Builders. The interviews for Lagos were conducted in their offices, and those for Abuja were conducted at the Biennial conference venue. However, findings reveal that some of the courses were imposed and accepted through their higher education institutions to avoid staying home longer.

It implies that the majority ended with construction disciplines/programmes against their preferred courses. So, the passion to practice dies immediately after graduation. This is one of the consequences of programmes/disciplines imposition on candidates seeking admission into higher education institutions. This could mean that some women in the construction industry should not be there if allowed to study their preferred programmes/disciplines. Participants were requested to describe women construction consultants' participation in practice, identify key hindrances facing them, and suggest measures to improve sustaining women construction consultants' participation in practice through face-to-face interviews. The analysed data are presented in themes in the next sub-sections.

## 4.1. Theme one: Participation of women construction consultants in practice

In this sub-section, participants shared insights on women construction consultants' engagement in practice and their career growth. Findings reveal that despite women being more ambitious in the digital era, their representation is not keeping pace. Participant P1 says, "…. *The gap ratio between male and female construction consultants, especially those sustaining the firm for over 30 years, is wide. How many women construction consultants do you know who started a private practice and have been in the business for over two decades? Very limited, if any. For the male counterpart, we have over four decades and are still functioning……we need policy to protect us in this man's dominated industry….*". Participants P2, P4, P6 & P8 opine that more women retire from 45 years and above than their male counterparts retire from private practice. It implies that the men folks dominate the elderly and experienced construction consultants in private services. Besides this being an act of inequality, it threatens SDG 5 if not addressed.

Participant P17 says, "……*sometimes, I feel I should not be in this profession or industry. It is a man-dominated industry. I'm almost 50 years old; you will hardly see a woman practicing like me of my age. Many who started simultaneously with me have delved into other businesses. Maybe I would have done the same if my husband was not a co-partner. Do women belong here?*" This corroborates P2, P4, P6, and P8's argument that women are more committed to private practices at an early career stage and later over-occupied with family and other issues. Findings show that employed women are critical in contributing to household incomes and well-being and, by extension, to the economy. Participant P4 says, "……*my honey (wife) has been helpful and supportive to the family in all ramifications. She handles all feeding and house upkeep expenses while I float other bills. This includes the children's fees, accommodations, medical bills, etc...*". The inclusion and strengthening of women construction consultants to be sustainable in their careers will lift millions out of poverty (majority). Participants P1, P3, P5, P7, P16, P20, and P22 opine that to support sustainable, inclusive growth of women construction consultants, stakeholders, especially the government (major client), need to rewire for inclusiveness and equity and refine their approach to consultancy appointment to balance inclusivity. Inclusive will enhance performance because a better representation has a real impact. However,

perceived hindrances are confronting the manifestation, which will be identified in the next sub-section.

## 4.2. Theme two: Perceived hindrances facing women construction consultants in practice

Identifying and eradicating indiscernible hindrances facing women in sustainable construction consultancy careers is possibly the foremost step in checking the gender imbalance in Nigeria's industry. Hence, the theme offers participants the platform to identify the barriers facing women construction consultants' careers. The perceived major hindrances were clustered into religious/cultural, family/marital, and practice. Findings reveal that religious/cultural hindrances are entrenched in the mind of an average African person and need in-depth and consistent re-orientation because of the long-standing customs and traditions that have influenced the construction industry (majority). This includes women as homemakers, acceptable dressing patterns, and married women not allowed to interact with men. For the family/marital hindrances, the general perception and the societal expectation from any young girl is to marry. This hinders the few females who might have studied disciplines and wish to practice as construction consultants (P4, P12, P18, and P21). The challenges include baby nursing, family commitments, spouse permission to work, household chef, and coping with pregnancy and site meetings. Regarding the practice hindrances, this includes perceived marginalised identities, microaggressions, absence of career advancement, absence of mentors/role models, consultancy fees discrimination (gender pay gap), and lax equity and inclusion (majority). Bullying, discrimination, gender stereotypes, policy disconnection, and lack of politics and networking are grouped as others.

Regarding bullying and discrimination, Participant P2 says, "……*bullying in this industry is real, but only a few like me can tolerate it and move on. Can you imagine that in one of my site meetings, the Consultant Architect, who has never met me once, confronted me that the meeting would not be held if my boss felt too big to make himself available? It took the client's representative time to apologise, and he later did because my senior resident QS had endorsed all correspondence. So, where is it written that a woman cannot be boss?...*" The perception that the industry belongs to men needs to be addressed through all-inclusive integrated equity and inclusion. In most cases, women are frustrated and left with no option but to accept the lower incomes (majority). The mechanism of mentorship of the elderly women creating space and links for the young ladies cannot be over-emphasised. The absence of these features may have contributed to the quit of many women, leading to job switches. In the African setting, many women in the workplace and aspiring top positions, including construction consultants, experience microaggressions compounded with childcare and household work (majority). The outcome could lead to job quit or refusal to aspire to the top with innovations. Participant P20 says, "…..*consultancy involves politics and networking via travelling to secure jobs. Women are less inclined than men for networking and travelling to source for consultancy jobs….*"

### 4.3. Theme three: Measures to improve women construction consultants in practice

This sub-section offers measures to improve women construction consultants' participation in practice. This has become pertinent to improve achieving Goal 5 (Gender equality) (majority). Thus, 13 variables emerged as measures to improve women construction consultants' participation in practice. This includes:

- Workplace flexibility (majority);
- Remote work (majority);
- Balance equity and inclusion in higher education institutions admission processes (P3, P6, P7, P12, P14, P20, and P21);
- Relevant ministries/departments/agencies should engage equity and inclusion in engaging construction professionals as consultants (majority);
- Invest in career advancement for women (P2, P3, P5, P13, P15, P18, and P20);
- Increase female admission slots for construction related-programmes (majority);
- Reskilling and upskilling for leadership and resilience skills (P1, P3, P5, P8, P11, P14, P18, and P22);
- Develop policies to balance inclusiveness in appointment (majority);
- Active women mentors/role models (P1, P3, P5, P6, P9, P16, and P19);
- More females are joining the different professions within the industry (P1, P2, P4, P5, P7, P10, P13, P17, and P20);
- Develop a framework to attract women to the industry (majority);
- Increase awareness of various construction professions and their roles in secondary schools (majority);
- Professional bodies have a role to play in sustaining women's construction consultancy (majority).

Among the 13 emerging measures is developing a framework to attract women to the industry, increasing awareness of various construction professions and their roles in secondary schools, professional bodies have a role to play in sustaining women's construction consultancy, relevant ministries/departments/agencies should engage equity and inclusion in engaging construction professionals as consultants, increase women admission slots for construction related-programmes, develop policies to balance inclusiveness in appointment, workplace flexibility, and remote work were frequently cited by participants as pertinent measures to improve women construction consultants participation in practice. The institutional framework of policy is key to implementing policies and sustainability. Findings show that the framework will provide the structure or flow of how women can be encouraged to study disciplines within the built environment and monitor to ensure they practice after graduation. "…….. *can institutional framework work without government support? I doubt. In all these, we need the government support from the girl child concept to adulthood; the women need protection in Africa, where cultural beliefs influence our daily routine…..*" said Participant P10. The proposed integrated framework should be all-inclusive (majority). This includes the child girl education (primary and secondary schools), higher education institutions (polytechnic or university), registered as a probationer member into various professional institutions like the Nigerian Institute of Quantity Surveyors and encouraged to become corporate/associate member within the

shortest possible time via mentorship. Next is the enabling environment to retain her in the industry under a mentorship for further learning on the job and career progression to become principal partner, chief partner, or chief executive officer (P2, P5, P9, P11, P17, and P21).

Regarding workplace flexibility and remote work, more transformation in the digital era will encourage women to render their services remotely. The remote working mechanism will mitigate microaggressions. Participant P22 says, "…*remote work can improve the psychological safety level and mitigate perceived microaggressions…..*" Also, findings reveal that professional bodies should encourage female colleagues to take higher positions by creating an enabling environment. Participant P4 says, "……*I know that the Nigerian Institute of Quantity Surveyors' created a platform for a female to emerge as the National President because there was no opposition in that election. Others should copy this noble system to encourage women to aim higher in their careers….*". One way to achieve this task is to ensure that awarding entities (ministries/departments/agencies) and private organisations establish policies and programmes that promote implementing diversity, equity, and inclusion in consultancy contract awards (P7, P11, and P18). In doing this, quality should not be negotiated and a more personalised approach should be demanded. The optimism for the future women construction consultants is high.

Professional regulatory bodies should inculcate a policy that speaks against microaggressions. Participant P14 says, "……*any form of microaggressions should be captured in the code of conduct of regulatory bodies. And what constitutes microaggressions should be articulated, including any form of disrespectful behaviour or look against same-sex or opposite sex……*" women in the workplace should avoid any form of aggressions and have the right to challenge them (majority). The outcome can support achieving Gaol 5 (bridging the gender gap). Upskilling and reskilling are the ways to go in this digital era. Hence, career development for women is key for relevance and adding value to services. Participant P7 says, "…. *how many women are willing and available for mentorship in the job? This is key for impact and sustainability. If I engage you today and there is no significant impact on the project, don't expect me to engage you tomorrow because you are a woman. Who does that….*?" Hence, leadership and resilience are more crucial than ever as a woman construction consultant (P3, P13, and P17). P13 says, "……. *women construction consultants should be willing to encourage innovation through adversity and recalibrate priorities to lead through ongoing uncertainty environment ….*" Resilience is critical and more important than ever for individuals, including the women construction consultant. Hence, women role models/mentors are critical to strengthening the few younger construction consultants not to give up on their practice (majority). Participant P9 says, "…. *mentorship should be infused to sustain women's active involvement in consultancy. The mechanism would act as a lifeline for the young females in practices and can share challenges with the senior colleagues…….*"

## 5. Discussion of findings

Regarding the participation of women construction consultants in practice, findings reveal that the industry is men-dominated. Findings agree with Field et al.

(2023), Gaweł and Mroczek-Dabrowska (2022), Ravazzini and Chesters (2018), Sertyesilisik (2022), and Suresh et al. (2023). Ravazzini and Chesters (2018) found that despite the increasing number of women in the workforce, there is a gender gap in income from the same work schedule. Gaweł and Mroczek-Dabrowska (2022) discovered a gender gap in women entrepreneurship, including construction, with less than 20% of entrepreneurs. Sertyesilisik (2022) avowed that though the construction industry is labour-intensive, women's employment is significantly low. Field et al. (2023) found that despite the hard gains from the few ambitious women, their representation is not keeping pace in the major construction professions that rendered private practices. Also, the results align with Field et al. (2023). They discovered that women, at the young age of under 30, are more ambitious and set key performance indicators for themselves. Findings agree with Adegbite and Machethe (2020) and Archibong (2018). They reported that the International Monetary Fund discovered that bridging Nigeria's gender gap is germane to promoting higher economic progress.

The study identified the perceived hindrances facing women construction consultants in practice. This includes baby nursing, bullying, men-dominated industry, family commitments, spouse permission to work, household chef, and coping with pregnancy and site meetings. The findings agree with Aboagye-Nimo et al. (2019) and Adeosun and Owolabi (2021). Aboagye-Nimo et al. (2019) discovered that women in the industry are bullied, discriminated against, and unfairly treated. This is simply because of their gender. Adeosun and Owolabi (2021) found that Nigerian women, including women construction consultants, face discriminations that limit their full capacity. This sometimes leads to a gender pay gap, frequently in private client negotiations with women construction consultants. Some of these clients believe they are helping you and try to re-negotiate the consultancy fees with lower pay. Findings agree with Gaweł and Mroczek-Dabrowska (2022) and Ravazzini and Chesters (2018). Also, the findings agree with Krivkovich et al. (2022). They found instances, because of their sex, that they are mistaken for someone more junior even when they can perform better twice than their male counterparts. Results align with Bolio et al. (2023). They discovered that women are less persuaded than men to take up new jobs overseas.

The research suggests measures to improve women's construction consultants in practice. Majority of the findings align with Adeyemi et al. (2006), Afolabi et al. (2019), Faus et al. (2022), and Suresh et al. (2023). They opined that improving women's participation in the construction workplace will improve the achievement of gender equality (Goal 5) and other related goals like Goal 8. Also, the findings agree with Adogbo et al. (2015). They developed a framework that will attract female undergraduates to practice but does not address enhancing construction consultants and achieving Goal 5. Findings agree that women should be encouraged to aim higher in their careers. Daily Trust verified this. President Iortyer became the 1st female Nigerian Institute of Quantity Surveyors president in November 2015 (Atonko, 2015). Also, the results align with Bolio et al. (2023) and Field et al. (2023). Field et al. (2023) recommend how organisations can advance and support women in the workplace; addressing microaggressions was one of the five core areas to focus on. Bolio et al. (2023) suggest more flexible working conditions to increase the number of women. Besides this, they emphasise identifying and eradicating invisible hindrances to women's sustainable careers in construction consultancy. Results align with Afolabi

et al. (2019) and Field et al. (2023). Afolabi et al. (2019) recommended role models/mentors as a measure to mitigate anti-feminine attributes in the industry. Field et al. (2023) discovered that formal mentorship is key for women's career advancement. Besides mentorship, the consultancy business needs to be transformed. Also, the results align with Faus et al. (2022). They emphasised communication and information dissemination campaigns as an economic tool to effectively change attitudes, especially in young people, via social networks and complement education programmes.

## 6. The study's implications

The study contributes to the field of gender equality, especially regarding women's construction consultant participation in the construction sector's private practice. This study investigated major perceived hindrances facing women construction consultants in practice after almost two decades of the government implementation of the adopted National Gender Policy in 2006 and the National Human Rights Commission. It allowed the industry's construction consultant women to proffer measures to improve their participation and, by extension, other sub-sectors. The following implications are drawn for stakeholders, especially policymakers, professional regulatory bodies, and decision-makers within the industry as follows:

Findings from the study will reawaken the Nigerian Government to make more commitments through pro-feminine policies to create a more inclusive women's workplace perspective, especially in the construction consultancy sub-sector. This task should be all-inclusive and reinforced by other industry stakeholders across the construction value chain. This outcome will image the industry as an inclusive sector. This may mitigate the society's conscious and unconscious bias towards women in the industry. It is on record that the industry is man-dominated, but sustainable pro-feminine policies and programmes can change the narrative. Besides increasing the number of women in construction consultancy and opening doors to women's opportunities, including employment and empowerment to contribute to home-front needs, it will enhance construction project delivery. Studies showed enhanced team performance when women workforces are engaged in a construction project (Sulesh et al., 2023).

Also, findings would improve women's drive to join a career as a construction consultant and climb to the industry's peak because of the presence of policies and programmes to protect sustainability. This can only be achieved with the necessary mentorship/role models to upskill and reskill the young career women in the sector. The era of construction digitalisation is fast embracing remote and flexible working to mitigate some of the hindrances facing women construction consultants' participation in practice. This was tested during the COVID-19 pandemic. The pandemic era introduced many unprecedented changes to the industry. Hence, exploring the positive influence of COVID-19 on the Nigerian built environment is a welcome development. One of the insights is the remote working. Also, as part of the theoretical contribution, the perceived major hindrances were clustered into religious/cultural, family/marital, practice, and others.

## 7. The study's limitations and areas for further research

Even with the innovative insights this research offers, there are still limitations. They engaged 22 participants and achieved saturation but offered leverage for further research concerning women construction consultant participation in practice using the longitudinal case-study method. This involves multiple data collection to unravel further empirical authenticities and validities. This is pertinent to mitigate the generalisability issue because the methodology adopted is exploratory, and the findings are tentative. Although the results are restricted to Nigeria's construction industry, the study argues that developing countries with similar challenges could consider the suggestions and modify them to improve achieving gender equality in their country's construction industry.

## 8. Conclusion and recommendations

The research aims to understand the issues women are facing as construction consultants in private practice in the industry after almost two decades of the government implementation of the adopted National Gender Policy in 2006 and the National Human Rights Commission and provide an opportunity for the industry's construction consultant women to proffer measures to improve their participation and, by extension, other sub-sectors. The researchers collated data through semi-structured interviews to explore how they can positively influence other upcoming career women. Findings show that men still dominate construction consultancy. Still, with more stakeholders embracing remote working and construction digitalisation, flexible working will enhance construction diversity for women and improve participation progress in the future. The National Gender Policy (2006) notes that Nigeria is a patriarchal society governed by patriarchal systems of sociolisation and cultural practices. The system favour the interests of men above women. There is progress in the remote working and construction digitalisation era. Some progress has been seen, but overall, the sub-sector has not moved forward, regarding significant women in their 50th to 60th years old managing a private construction consultant firm. Full inclusion is key to delivering business transformation success, leading to better performance. From the research, measures were recommended as follows:

1) The study recommends developing an integrated institutional framework to connect the flow from the girl child to higher education institutions where construction-related discipline will be studied and followed up with an enabling environment through mentors/role models to practice as a construction consultant. In this flow, the government has a role to play in ensuring gender equality is promoted. It can be incentives like scholarships, grants, or stipends to female students studying construction-related disciplines and ensuring higher education institutions' admission priorities. Also, policies and programmes tailored towards encouraging women to venture into private practices should be encouraged by various regulatory professional bodies. These policies should be feminine friendly, including consultancy appointments for jobs and other related national assignments within the various regulatory bodies and government.
2) Besides the sensitisation of various construction disciplines and their major role in secondary schools by government and professional bodies, the study

recommends that awarding entities like ministries/departments/agencies should develop feminine-friendly policies tailored towards equal opportunity regarding the appointment of construction consultants' teams in government and corporate organisation projects. Also, various professional institutions have a role to play in ensuring that women construction professionals are encouraged in positions and consultancy appointments.

3) The role of higher educational institutions' regulatory agencies (National Universities Commission and National Board for Technical Education) and professional bodies' regulatory agencies (Quantity Surveyors Registration Board of Nigeria, Council of Registered Builders of Nigeria, Council for the Regulation of Engineering in Nigeria, and Architects Registration Council of Nigeria, etc.,) cannot be over-emphasised. Hence, all stakeholders should implement policies tailored towards improving women's participation in construction consultancy practice in Nigeria to achieve gender equality and other related SDGs.

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## Appendix

Dear Participant,

Request for Interview

The target date for achieving the 2030 UN Agenda [Sustainable Development Goals (SDGs)] is fast approaching. The construction sector is critical to achieving many SDGs, including Goal 5. Studies regarding achieving Goal 5 (Gender Equality) in the construction industry, especially women's consultancy participation in developing countries, are scarce and complexly interrelated. Societal problems and divergence may have contributed to this. Therefore, the study's title is "Investigating the Mechanisms to Close Gender Inequality in Nigeria's Construction Consultancy Participation to Achieving Sustainable Development Goal 5." Specifically, the researchers will achieve the stated aim through the following:

1) To evaluate the participation of women construction consultants in practice.
2) To investigate the perceived hindrances facing women construction consultants in practice.
3) To suggest measures to improve women construction consultants in practice through policy to improve achieving Goal 5 in Nigeria.

Kindly note that the interview questions will be within the stated objectives. Your responses will be collated and analysed together with those of other interviewees. It will make up the value and contribution to achieving the success of this work. The researchers will treat the information provided with the greatest secrecy.

Hence, the researchers will highly cherish your valuable time and other answers to the questions.

With regards.
Yours faithfully,
(Research Coordinator)

BASIC QUESTIONS FOR THE PARTICIPANTS

(1) For record purposes, what is your organisation's name and state location?
(2) Please, what is your position in the organisation?
(3) Can you tell us your years of work experience?
(4) Please, are you knowledgeable regarding participation of women construction consultants in practice and Goal 5?
(5) If yes to question 4, how can you assess the participation of women construction consultants in practice?
(6) Do you think there are perceived barriers facing women construction consultants?
(7) If yes to question 6, what are the possible barriers?
(8) If no to Question 6, why do you think so?
(9) What are the measures to improve women construction consultants in practice through policy to achieve Goal 5 in Nigeria?