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Abdulmaliki SANUSI

**DECODING FACTORS THAT CONTRIBUTE TO
GENDER DISCRIMINATION IN ARCHITECTURE
PROFESSION IN NIGERIA**

THESIS ADVISOR

Dr Baharak TABIBI

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DEDICATION

I dedicate this project to Allah (SWT), my creator, and my parents for their endless love, support and encouragement throughout my pursuit for education. And to my friends and siblings, thank you. I hope this project will envisage the success to everyone who believe in my dream.



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KISA ÖZET

NİJERYA'DA MİMARLIK MESLEĞİNDE CİNSİYET AYRIMCILIĞINA KATKIDA BULUNAN FAKTÖRLERİ ÇÖZME

Bina ve inşaat sektörü, Nijerya'nın ekonomik ve altyapısal gelişimine katkıda bulunan en önemli sektörlerden biridir. Ulusal İstatistik Bürosu (2021), 2020'nin dördüncü çeyrek tahminine (%7,93) göre %2,23'lük bir artışa işaret ederek, 2021'in ilk çeyreğinde ülkenin nominal gayri safi yurtiçi hasılasına yaklaşık %10,17 katkıda bulunuyor. -Hizmet sanayi ve tarım sektöründen sonra en çok vasıflı ve vasıfsız işgücü istihdam eden ülke. Bir meslek olarak mimarlık, inşaat endüstrisinin bir alt kümesidir ve inşaat ve inşaat endüstrisinin diğer benzer alanlarında elde edildiği gibi, sektör tipik olarak din, gelenek ve kültürden kaynaklanan oldukça ataerkil toplum nedeniyle gelişen erkek egemendir. Bu çalışma, Nijerya'nın mimarlık endüstrisinde cinsiyet ayrımcılığını öngören varlığı ve faktörleri belirlemeyi amaçlamaktadır.

Bu çalışmada Nijerya'da mimarlık mesleğini icra eden toplam 50 katılımcı (14 kadın ve 36 erkek) kullanıldı ve bilgi toplamak için (demografi, işyeri ayrımcılığı, kısıtlama (kültürel ve dini) ve kayıt faktörleri) iyi yapılandırılmış çevrimiçi uygulanan anket kullanıldı. cinsiyet ayrımcılığından sorumludur). İşyerindeki cinsiyet ayrımcılığı sonuç değişkeni olarak kullanılırken, kısıtlayıcı faktörler (kültürel ve dini konular) ve okullaşmanın belirleyicileri yordayıcı değişkenler olarak kullanılmıştır.

Çoklu regresyon analizinin sonucu, işyeri ayrımcılığında istatistiksel olarak anlamlı miktarda varyans olduğunu göstermektedir. Kısıtlayıcı faktörler değişkeni işyeri ayrımcılığının anlamlı bir yordayıcısı iken, kayıt faktörleri değişkeni işyeri ayrımcılığının anlamsız bir yordayıcısıydı. Korelasyon analizi sonucu, işyerinde ayrımcılık ve kısıtlayıcı faktörler arasında orta düzeyde pozitif bir ilişki olduğunu göstermektedir.

Bu çalışma, sosyokültürel normlar, değerler ve dini unsurlar dahil olmak üzere birçok kısıtlayıcı (kültürel ve dini) faktörün, profesyonel mimaride düşük katılıma ve cinsiyete dayalı işyeri ayrımcılığına katkıda bulunduğunu göstermiştir.

Anahtar kelimeler: Nijerya'da mimarlık, Kısıtlayıcı faktörler, Kayıt faktörleri, Mimarlarda kadınlar.

ABSTRACT

DECODING FACTORS THAT CONTRIBUTE TO GENDER DISCRIMINATION IN ARCHITECTURE PROFESSION IN NIGERIA

The building and construction industry is one of the most significant sectors contributing to Nigeria's economic and infrastructural development. The National Bureau of Statistics (2021) indicate a 2.23% increase from the fourth-quarter estimate (7.93%) of 2020, contributing about 10.17% to the country's nominal gross domestic product in the first quarter of 2021. Also, it is the third-largest employer of skilled and unskilled labour after the service industry and agricultural sector. Architecture as a profession is a subset of the construction industry, and as obtained in other allied fields of the building and construction industry, the sector is typically male-dominated which thrives due to the highly patriarchal society borne out of religion, tradition and culture. This study aims to determine the existence and factors that predict gender discrimination in Nigeria's architecture industry. A total of 50 participants (14 females and 36 males) practising the architecture profession in Nigeria were used in this study and well-structured online administered questionnaire was used to gather information (demography, workplace discrimination, constraining (cultural and religious) and enrolment factors responsible for gender discrimination). Gender discrimination in the workplace was used as the outcome variable, while the constraining factors (cultural and religious issues) and determinants of enrolment were the predictor variables. The result of the multiple regression analysis shows that there was a statistically significant amount of variance in workplace discrimination. Constraining factors variable was a significant predictor of workplace discrimination, while the enrolment factors variable was an insignificant predictor of workplace discrimination. The result of the correlation analysis shows that there was a moderately positive correlation between workplace discrimination and constraining factors. This study showed that several constraining (cultural and religious) factors, including sociocultural norms, values, and religious elements, contributed to the low involvement and gender-based workplace discrimination in professional architecture.

Keywords: Architecture in Nigeria, Constraining factors, Enrolment factors, Women in architects.

ABBREVIATIONS

UN United Nations (UN)

SDGS Sustainable Development Goals



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CHAPTER 1. INTRODUCTION

1.1 INTRODUCTION

In many countries around the world including Nigeria, there are many obstacles that may impede the advancement of the established labour market. These obstacles have an adverse effect on the general economic situation as there is a direct and positive relationship between the labour market and the economy as a whole. Gender discrimination is a big issue in women's history, which still persists throughout the world, and is one of the obstacles impeding the advancement of the established labour market. There are different types of gender discrimination and a couple of examples are labour market discrimination and occupational discrimination which occur in various professions. Labour market discrimination exists when workers with the same productive capabilities receive different rewards based on the population group they belong to, while occupational discrimination occurs when population is restricted from certain occupations or jobs and/or crowded into others. Both types of discrimination can be seen in the construction industry in Nigeria, especially the architecture profession. The architectural profession is demanding and exact. Initially, professionals in this field are made to go through a rigorous and in-depth training, which made it tough for women to break through into it. The profession required a high demand in physical activities accompanied by architectural training, it was assumed that the profession was suited for men only, hence, women were not allowed to participate until the end of the 19th century. Gender in this profession was a quiet topic as the domination by males was generally accepted in different professions such as law, medicine, and accounting, amongst others. However, the number of women entering the profession has increased over the years, but the numbers are still low in comparison to the number of men in this profession.

1.2 PROBLEM STATEMENT

This study aims to determine the existence and factors that predict gender discrimination in Nigeria's architecture industry. Few reports have shown that despite an increase in the number of female students enrolled in architectural programs, the expected

rise in the proportion of qualified female architects had not materialised, in which the number is severe in Nigeria. Architecture as a profession is a subset of the construction industry, and as obtained in other allied fields of the building and construction industry, the sector is typically male dominated which thrives due to the highly patriarchal society borne out of religion, tradition and culture. This dominance is attributed to indigenous cultural undertones (which regard women as the lower gender in the family, political, societal, professional set-up and gives a preferential treatment to men) in this part of the world, which are deep-rooted in patriarchy typically advocate traditional gender roles, serve as a significant obstacle militating against the participation of a sizeable number of women in this sector.

1.3 AIM AND OBJECTIVES

This research aims to review the existence of gender discrimination in Nigeria's architecture industry and the factors that predict it. The objectives set out to achieve this research aim are identified as follows.

- To investigate gender discrimination in a professional architecture practice in Nigeria.
- To investigate the cultural and religious issues constraining gender-based participation architecture practice in Nigeria.
- To investigate the factors contributing to gender-based enrolment into architecture programmes in Nigerian tertiary institutions.

1.4 NULL HYPOTHESIS

Question I: Does gender discrimination still exists in professional architecture practice in Nigeria?

Question II: Will factors such as constraining (cultural and religious) factors and enrolment factors predict gender discrimination in professional architecture practice in Nigeria?

1.5 SIGNIFICANCE OF THE STUDY

The building and construction industry is one of the most significant sectors contributing to Nigeria's economic and infrastructural development. The National Bureau of Statistics (2021) indicate a 2.23% increase from the fourth-quarter estimate (7.93%) of 2020, contributing about 10.17% to the country's nominal gross domestic product in the first quarter of 2021. Also, it is the third-largest employer of skilled and unskilled labour after the service industry and agricultural sector (Sasu, 2022). Furthermore, the recent urban renewal drive has triggered a surge in large-scale residential developments. This trend is more emphasised in the country's large urban centres, such as Lagos, Abuja, and Kano (Unah, 2019; Olajide, Agunbiade and Bishi, 2018), although similar activities are ongoing in less urban cities like Abeokuta, Ibadan, Anambra and Port Harcourt. However, current figures put the national housing deficit at about 20 million units requiring a staggering N21 trillion to offset this massive shortfall (Moore, 2019). Moreover, with the population expected to swell to around 400 million people by 2050 (Obiezu, 2019), the need to step up the drive to provide conducive housing infrastructure for this projected population cannot be overstated. Therefore, any intervention that will enhance efficiency and productivity in this sector will be a welcome boost in the developmental efforts. Consequently, to foster optimum performance, all hands must be on deck to tackle the widespread, institutionalised gender-based discriminatory practices characteristic of practices in the Nigerian building and construction sector.

Therefore, this study is critical to understanding the inner workings of residential architecture practices as it examines the prevalence and ramifications of gender biases within the context of Nigeria's building and construction industry. Furthermore, the research investigates the meaning of gender discrimination to understand the typical mindset and prejudices of design professionals in the country, that is, what architects in Nigeria know and feel about gender-based discriminatory practices. Furthermore, it is envisaged that the study's findings will help demystify gender discrimination by creating a better understanding of this theme while also emphasising the impacts these biases have on professional activities within the domain of modern residential architecture practices in Nigeria.

1.6 SCOPE OF STUDY

This research is poised to assess the constraints against female participation in Nigeria's architecture practice. In addition, the study will probe dominant cultural undertones that shape women's career choices in the building sector, especially as it pertains to architecture. This analysis will provide more significant insights into the glaring gender gap existing in Nigeria's contemporary architectural practice while also proposing implementable solutions to the identified challenges.



CHAPTER 2. LITERATURE REVIEW

Architecture as a profession is a subset of the construction industry, and as obtained in other allied fields of the building and construction industry, the sector is typically male dominated which thrives due to the highly patriarchal society borne out of religion, tradition and culture (Caven 2006; Jwasshaka, and Amin, 2020). Before the colonization in Nigeria, architecture was historically influenced by environmental conditions as well as social and cultural factors. Due to the social and cultural factors of the country, and also high demand in physical activities which accompanied architectural training, it was assumed that the profession was suited for men only, hence, women were not allowed to participate until the end of the 19th century. In recent years, the participation of women in architecture has gradually increased (Enwerekowe, 2016). However, due to the increasing knowledge in design complexity, it is demanded that architects devote more time to design and less time in practical construction (Enwerekowe and Tsok, 2017), also, advancement in technologies and related innovations requires that architectural professionals should be able to take on their ever-expanding roles to satisfy demand. The demand in diversity of roles throws the female gender at the risks of occupational stress, job insecurity and expected low turnover as most males in the profession feel (especially in developing countries) (Anthony, 2008).

2.1 GENDER DISCRIMINATION IN GLOBAL CONSTRUCTION INDUSTRY

Gender inequality has continued to be a problem that is not fully addressed in international discussions (Worsdale and Wright, 2021). Some studies have suggested that gender inequality may boost economic growth (Kleven and Landais, 2017; Worsdale and Wright, 2021). Gender inequality is a problematic issue since it affects well-being and is perceived as an unfairness in the core principle of equity, according to some scholars (Essien et al., 2016; Falk and Hermle, 2018). (UNDP, 2015; Rewhorn, 2020). The construction industry is a male-dominated industry and a major challenge to women's equal opportunities. Several times, women have been reported to face many difficulties and barriers while choosing a career in the building and construction industry worldwide.

Women are victims of unfair treatment, discrimination and disrespect, whether they are part of the professional team or even working on site nowadays. Studies have shown that men and women perform unlikely on tasks. For instance, according to the Inidan labour force survey trends (August 2018), the construction sector continues to be a male-dominated sector with an overall 89% average percentage of men employed in the sector compared to just 11% for women. Girija R. et al. (1989) come up with a study on socio-economic conditions of workers in construction industry. Some of the few key elements that makes it challenging for women to work in the construction industry as reported by Kalpanadevi et al., (2013) include domestic violence, gender discrimination, and inequality in wages.

Furthermore, the number of women Asia outnumbered that of men in the construction industry in Asia, accounting for 88%, 95% and 75% respectively in Bangladesh, Thailand, and Sri Lanka as shown in **Figure 2.1**. However, most of the women employed in the construction sites in Asia are engaged as labourers or helpers, and not in the administrative, technical or professional works (Wells, 2004). In these countries, the place of women in the hierarchy of job is low, and they are considered as people who can only do unskilled job and as head-load carriers, and are also paid less than men doing the same tasks as them (Wells, 2004). This is different in South Africa where social related jobs are occupied by 55% women, while their construction industry can only boast of 12.4% participation because of the unpopular interest in the sector (Ricki, 2007). However, this isn't the case with Nigeria, as study carried out found that 50% of the women are engaged as labourers (Adeyemi et al., 2006). In the UK and other developed nations like the USA, Germany and Australia, the architectural profession is still dominated by their males. The percentage of women in the construction industry in the UK was between 10% to 12% from 1990 to 2005, which has reduced to a smaller percentage over the years (Whittock, 2002). However, a speedy growing profession for the women is reported in the construction industry in the United States. Although, the women constitute about 3% of total employment in the industry, the percentage keeps increasing as many women enthusiasts are beginning to take up new enterprises in the field (Warren, 2003). In addition, their government is making efforts in awarding contracts to women-owned businesses, ensuring that the women are treated as individuals in their own rights and capabilities (Schrum and Geisler, 2003). According to Labour

Statistics, the average employment in the European Union countries has 10% of women, while 8% of the overall employment in the construction industry are women (Aulin and Jingmond, 2011). Study revealed that Australia and Germany recorded the highest percentage of active participation in the construction industry with 13.5% and 12% respectively among the European countries. Greece recorded the least with 2%, while Malt and Portugal recorded 4.3%, while Romania, Netherlands, Bulgaria and France recorded between 5% to 10% of active participation of women in the industry as shown in **Figure 2.2** below. However, majority of the women in this industry prefer to work as administrators, technicians and professionals, rather than labourers (Clarke et al., 2005).

Furthermore, Hansen et al. (2018), argued that although there are many barriers for women seeking employment in the construction sector, they offer a tremendous deal of potential to help the sector address its worker deficit. According to a study in Singapore, 33% of female engineers quit the construction sector, and another 29% were considering doing the same (Leow and Yean, 2008). Similarly, studies conducted in the UK revealed that women still struggle to hold top management positions despite equal opportunity recruitment tactics (Watts, 2009). In reality, there aren't many differences between male and female project managers in terms of performance (Arditi and Balci, 2009).

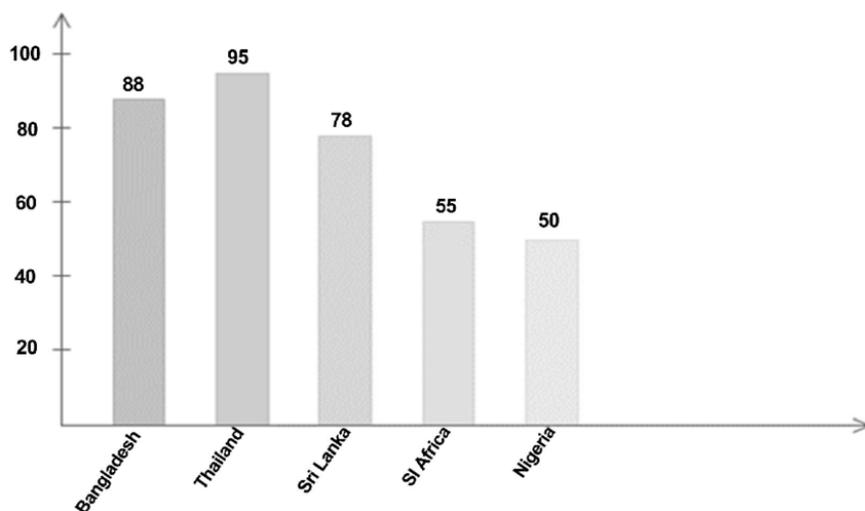


Figure 2.1: Percentage of Women engaged as Labourers in construction work in some developing countries. Source: Wells (2004): Statistics South Africa, (2003): Adeyemi et al. (2006).

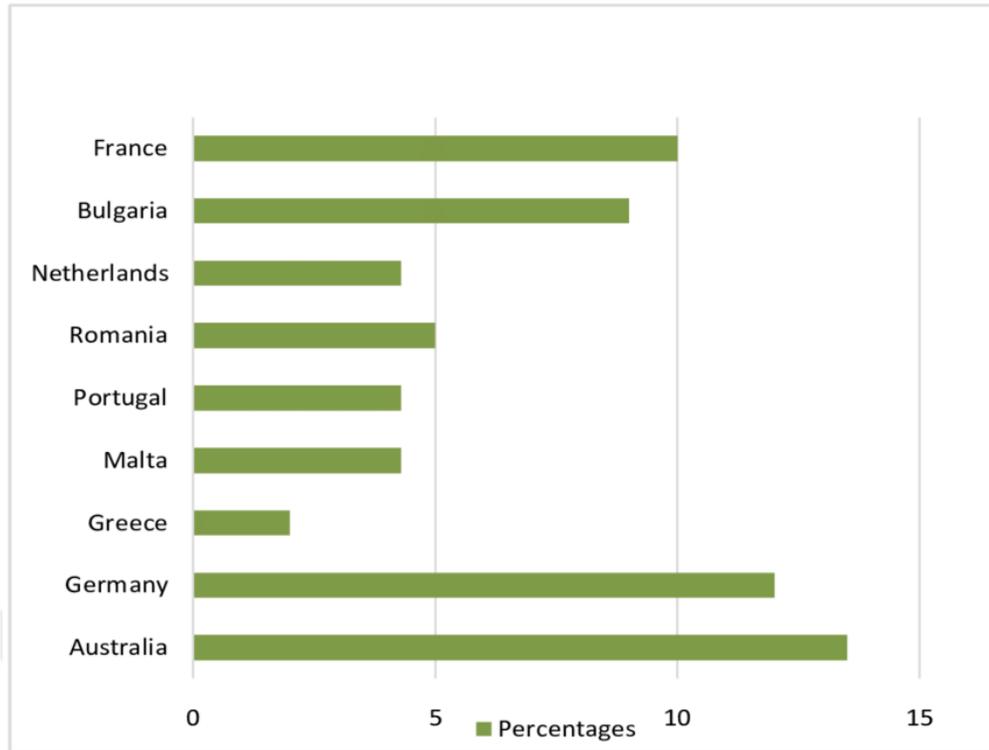


Figure 2.2: Women participation in construction work in some European countries, Source: Labour Statistics cited in Aulin and Jingmond (2011).

2.2 GENDER DISCRIMINATION IN GLOBAL ARCHITECTURAL PRACTICE

Generally, one of the industries involved in gender discrimination is the construction industry in which the architectural profession is a subset, with persistent gender inequality levels (Sang and Powell, 2012). The gendering of space and architectural programs according to users, the subjective dimensions of the architectural object that can be criticized as being masculine and feminine according to specific gender stereotypes, and the fact that women's experiences of the built environment differ from men's and are underrepresented in the built environment are all addressed by gender issues in architecture (Stratigakos, 2001; Zhang et al., 2021). The industry remains a highly male-dominated profession, with women being represented in clerical and secretarial roles rather than skilled and semi-skilled positions (Olayeni and Adisa, 2019). Several studies from time past document the low number of female professionals in the construction industry compared to other industries (Bagihole et al., 2000; Sang and

Powel, 2012). Despite the increase in the enrolment number of women in construction-related disciplines, only a few end up in the industry as professionals (Clarke, 2016). For instance, in a report in 2016, the US, almost half the number of architecture graduates were females, but less than 20% of these women were licensed to practice (Stratigakos, 2016). Architecture is considered a male profession even in advanced countries such as the UK, US, Australia and Canada with low number of female registered architects (Caven, 2006; Philips, 2017). In their studies, de Graft-Johnson et al. (2005) and Whitman (2005) noted that, although there has been a rise in the number of female students enrolling in architecture programs in the US, the expected rise in the number of qualified women architects has not materialised. Low numbers of women architects have been seen in the most developed nations (Philips, 2017). Despite their increasing numbers, women in architecture remain a minority, and their hazy professional status remains a touchy and contentious topic. Most women want to be called architects rather than 'women in architecture (Abdullah et al., 2013). Only a small percentage of men and women working in architecture today are interested in or at ease talking openly about the inconsistent nature of women's professional roles (Hansen et al., 2018).

2.3 CAUSES OF GENDER DISCRIMINATION IN ARCHITECTURE

PRACTICE GLOBALLY

One of the barriers limiting women from fully engaging in the construction industry is gender discrimination, which takes the form of women being paid less than males (Lips, 2000; Morello et al., 2018). The same is true for how strict schedules influence women's decisions to work (Ou and Pan, 2021; Worrall et al., 2010). Women are in charge of childcare and housekeeping while working outside the home, according to Peus and Traut-Mattausch (2008). This could lead to further problems for female construction employees regarding work-life balance and mental health. Additionally, there is a perception that women lack the skills required for construction work, including the capacity to make decisions in the role of project manager, assertiveness in the role of site supervisor, and energy and stamina in the role of project worker (Hansen, 2020). Among the main factors contributing to gender discrimination in architecture are:

- **Hostile Work Environment**

According to George and Loosemore (2019), the dominant workplace culture in the construction industry is likely the main factor preventing women from being treated unfairly because it affords them few career opportunities and inadequate assistance. Women in the construction sector frequently encounter scrutiny, doubt, or depreciation of their professional abilities, in contrast to the implicit assumption that men are competent (Galea et al., 2018). According to Jenkins et al. (2019), "spotlighting" is a common experience for women in the sector. This is where they feel like they are constantly being observed and pressured to work harder than their male co-workers to prove themselves. Additionally, when a woman makes a mistake, it is considered a "gender capability" issue rather than a mistake she made (Bridges et al., 2019).

- **Poor Worker Wellbeing**

According to a recent survey of 5,000 Australian workers from various industries (Fry, 2019), women in the construction business reported lower levels of well-being than males (11.7%), and they had mental health concerns more frequently (25.5%) than men. In assessing the study on mental health in the building industry. Unsatisfactory working conditions have been closely connected to poor employee well-being. Women suffer more from the key occupational dangers that stress out construction workers and have a detrimental influence on their wellness. These risks are more prevalent among women (Cattell et al., 2016). These circumstances include long working hours with tight deadlines, little job control (Bowen et al., 2018), high conflict levels (Panahi et al., 2017), and job instability (Langdon and Sawang, 2018).

- **Lack of Supervisor Support**

Removing position ambiguity, effective supervisor communication, clear job direction, and timely information reduce workers' workplace stress (Thomas and Lankau, 2009). A buffer between employee demands, work pressure, and time restraints are provided by the supervisor's support (Willemse et al., 2012). Therefore, job satisfaction, improved work performance, decreased emotional tiredness (Willemse et al., 2012), and burnout (Hämmig, 2017) are all associated with a high level of supervisor support. The significance of on-site job support for women was emphasised in a study of female apprentices training in trades where males mainly labour (Shewring, 2009). To help

tradeswomen succeed in their jobs, good supervisor support and sensitivity to concerns about workplace discrimination are thought vital (Skills ACT, 2018).

2.4 FACTORS TO NEUTRALIZE GENDER DISCRIMINATION IN ARCHITECTURAL INDUSTRY

A multinomial logistic regression analysis was utilised by Munyoki (2018) to ascertain the proportions of women employed in various subsectors of the construction industry and found that social networks, workplace culture, and personal attributes were the three main motivators for women to work in the civil sector. In contrast, education was a key driver in the railway construction industry. To combat gender discrimination, Sasser et al. (2004) recommended encouraging parity in the selection, retention, and career development procedures. To eliminate gender discrimination in the architectural field, some factors should be taken into account:

- **Working Conditions**

These factors will motivate more women to work in the area of architecture. It comprises the following components: work mobilisation, maternity leave rights, clean bathrooms for women, and job performance evaluation. The construction industry is extremely competitive, yet fair evaluation of praise for a job well done is necessary so that workers, especially women, may stay motivated and improve their performance (Morello et al., 2018). In addition, access to sanitary facilities and the likelihood of maternity leave are other factors influencing women's decision to seek a career in the construction industry (Hewage, 2007; Madikizela and Haupt, 2010; Saksena et al., 2020). Additionally, studies have demonstrated that long work hours are detrimental to well-being (Ganster et al., 2016). Thus, flexible working hours would increase opportunities for women's participation in the industry (Fielden et al., 2001).

- **Management**

Excellent and proper firm management inspires women to work in the construction industry. There are three components to this aspect. The company's management policy is to offer formal and informal training programs and skill development. Women view the chance to advance their talents and skills as a motivating

element (Adogbo et al., 2015; Barg et al., 2014). Additionally, non-discriminatory corporate policies and plain-spoken yet clear gender equality communications are signs of successful management organisations (Madikizela and Haupt, 2010). Furthermore, women should be given the same opportunity to assume management positions which can be of influence company policies that can affect how women are treated in the construction industry.

- **Professional Body**

The professional body is tasked with several responsibilities of ensuring gender equality. They should ensure legal action against firms in the industry that pay women less than men for doing the same job, as this is an illegal act. Furthermore, despite the economic downturn leading to the over-supply of architects, males are privileged over females. Hence the body should ensure equal opportunities for all as long as the criterion for the role is met (Caven and Astor, 2013).

- **Interpersonal Relationship**

This includes support from friends and family, gratitude for completed projects, project prestige, and positive relationships with superiors and team members (Barg et al., 2014). The consideration of women working in the construction business depends heavily on personal and family support (Fahirah, Fadjar, and Wahliana, 2017).

- **Encouraging Gender Equality**

This can involve positive working relationships with the team's male members, praising women's contributions, comparing rewards on an equal footing, offering programs that promote women's inclusion, and providing women with the appropriate work attire on the job. Generally, a construction project's team members must work together with effective communication to ensure maximum productivity. Working in this field might be made more appealing by the co-workers' friendly and helpful attitudes (Barg et al., 2014). Equal acknowledgement of the excellent work performed by women serves as another source of motivation for them (Madikizela and Haupt, 2010).

- **Working Environment**

Two factors—welcoming workplaces and corporate policies that support women's inclusion and equitable treatment—motivate women to work in this field. To increase women's participation in this field, strong policies that favour women are required (Madikizela and Haupt, 2010). A positive work atmosphere is necessary for employees to

feel solidly welcomed by their team (Nursetyo, 2012). According to Madikizela and Haupt (2010), more women might choose to work in construction if the workplace was more appealing.

- **Mentoring**

Teaching, knowledge transfer, and impacting others are all part of mentoring. Women in construction who mentor other women are and should be inspiring and directing them to work in the field. Mentoring them on career pathways which the mentor has pursued as well as other chances in the construction sector, is another example of this (Afolabi et al., 2019). According to Hamlin and Sage (2011), the (female) mentee can open up and feel secure in sharing strengths and limitations with the mentor during the mentoring dialogue while using this mentoring method. The structure ensures that the mentor is a good listener and that the (female) mentee's thoughts are stimulated throughout the process to improve performance. The mentor must foster an environment where the (female) mentee feels comfortable raising pertinent issues regarding her job. Personality mismatch, resentment, argument, and loss of interest might occur when the mentor and mentee lack the necessary qualities (Porter and Serra, 2020).

2.5 GENDER DISCRIMINATION IN NIGERIAN CONSTRUCTION

INDUSTRY

The construction industry is one of the major sub-sectors that contribute immensely to the gross domestic product (GDP) of Nigeria economy. The sector reportedly contributes 70% of the fixed capital formation and 3% of the GDP (Adeyemi et al.,). The debt to GDP ratio was 7.2% in 2008; in 2019, it was 16.2%; and in the first quarter of 2022, it was 23.27%. (CEIC, 2019; Nairametrics, 2022; Onafowora and Owoye, 2019). Nigeria's economy is blended with emerging markets having moderate-income levels (Ovadia and Wolf, 2018). It is ranked as the 27th largest economy in the world in terms of nominal gross domestic product (GDP) and the 23rd largest in terms of purchasing power parity due to the growth of key industries like manufacturing, construction, health, communications, technology, financial services, and entertainment (IMF, 2020). There is a clear gender distribution disparity in society and across all economic sectors, according to research conducted over the years (Blau and Kahn, 2017;

Ndubuisi, 2017). Although the construction sector employs the most people, the attitude and climate there can be characterized as being unwelcoming to women, and the majority of its workers are men (Adeyemi et al., 2006; Afolabi et al., 2016). Contrary to studies done in developed (industrialised) countries, relatively little has been done on women's participation in the construction business in Nigeria. Studies on the informal housing delivery business, a subsector of Nigeria's construction industry, reveal that the participation of women in construction is extremely low. However, it was believed that several variables arising from the cultural ethics and values shared by the numerous ethnic groups that make up Nigeria were responsible for this observation (Adeyemi et al., 2006). It is estimated that over three million people work in the industry as labourers, professionals, administrative staff and operatives. However, due to the Nigerian culture, tradition, and religious beliefs, the industry is male-dominated as women are rarely found in the industry. Women are rarely involved in building construction due to cultural norms, religious beliefs, and gender roles, which is saddening in an industry worth millions of naira. Gender inequality persists as a threat to the society despite the numerous initiatives implemented by the United Nations, governments, and other commercial organisations to decrease it to the barest minimum (Uduji and Okolo-Obasi, 2018). Nigeria has a large proportion of women in their population, thus, it is obvious that their inclusion in an industry like building construction that can boost the economy will be beneficial (Jwasshaka and Amin, 2020). A recent assessment by the International Monetary Fund (IMF) revealed that closing the gender gap is essential to achieving the growth Nigeria's economy needs by boosting productivity and achieving a stable economy. The Federal Government of Nigeria increasingly recognises skill development as a crucial aspect of boosting productivity, enhancing economic competitiveness, and eliminating poverty.

Nigeria construction industries has similar operation models with the United Kingdom being their colonial masters. The industry is prone to run out of staff, and this scenario is happening in the industry in Nigeria because of non-involvement of women who in spite of their construction and professional skills, they chose to venture into other jobs such as dress making, catering services, cosmetic works, and other vocations abandoning their profession. This situation is termed deviation rather than diversification, as it has a great effect on the progress of the construction industry in Nigeria (Odubiyi, 2018). Nigeria has a large population of women, and various women empowerment

programs may lead to economic benefits, reduction in corruption, and domestic violence, automatically leading to national development (Pitambar and Bishwa, 2017). Achieving Goal 5 of the sustainable development goals which emphasizes gender equality and women empowerment by 2030 will ensure their inclusion in the construction industry and other sectors which are capable of contributing to the growth of the economy. However, the rate of women's participation in both industrial and academic parts of the industry is very low (Akomolafe and Mohammed, 2014). A comparative study conducted on both men and women participation in construction industry in Nigeria shows that only 16.3% of the workforces were women. The study further revealed that 50% of these women were employed as labourers, 37.5% as administrative staff, 10% as management staff and only 2.5% represents women with skill; which are depicted in **Figure 2.3** (Akomolafe and Mohammed, 2014). The study concluded that women are underrepresented in this particular industry in Nigeria, because of their preference to administrative and other vocations to construction skills. Traditionally, Nigeria and other Africa Nations believe that possession of construction skills is solely men's job.

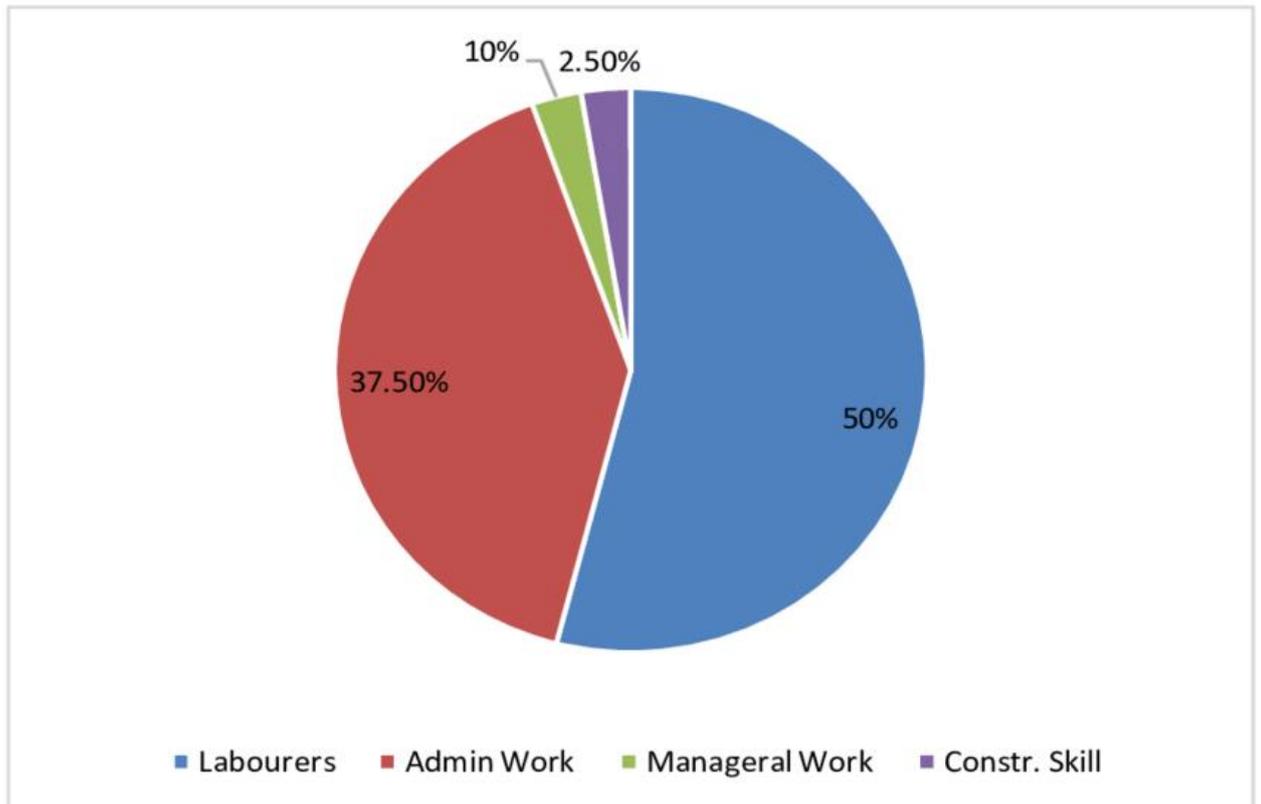


Figure 2.3: Women involvement in construction work according to occupation. Source: Adeyemi et al. (2006).

2.5.1 Nigeria Workplace

Salvini (2011) defined gender discrimination as any circumstance in which a person is passed over for a job or treated unfairly solely because of their gender. However, regardless of a woman's marital status, gender discrimination is also defined as "any sex distinction, exclusion, or restriction that has the effect or purpose of impairing or nullifying the recognition, enjoyment, or exercise by women of men and women's equality, of human rights, and of fundamental freedoms in the political, economic, social, cultural, civil, or any other field (European Institute for Gender Equality, 2021)." Gender discrimination often manifests in many ways; these include sexual harassment, gender stereotypes at work and school, objectification. For instance, harassment is limiting and infringes on their right to free movement, and this situation becomes particularly problematic if there are no active campaigns to stem its growing tide. Gender stereotypes are enshrined in the cultural practices of most indigenous cultures in Nigeria. In Africa,

young girls are believed to be and should play minor roles in developing their communities. This "weaker vessel" ideology is further reinforced virtually all through their lives, rearing its ugly head time and again as they navigate through life (Enwerekowe, 2016). While making career choices, they are discouraged from science and technology courses, and they are constantly told that their place is in the kitchen performing mundane domestic tasks.

Although there are many different types of workplace gender discrimination, it generally refers to when an employee or job applicant is treated differently or less favourably due to their sex, gender identity, or sexual orientation. On the other hand, an article published by Stanford University (2020) defined gender discrimination as unfair or disadvantageous treatment based on an individual's gender. The University text expanded this treatment to include all sex-based, gender-identity- or gender-expression-based harassment or discrimination. In their research, Parker and Funk (2017) reported that 42% of American working women had experienced gender discrimination at work. This high prevalence is not only a result of their co-workers' ingrained prejudices. It frequently results from biased or organisational structures, practices and policies, further complicating an already troublesome situation (Stamarski and Hing, 2015). Gonzales (2022) cited a number of instances of workplace discrimination against women, including being paid less than men despite having similar job responsibilities, being evaluated or held to a different standard because of gender, being excluded from important meetings, being fired or demoted because of pregnancy, and being the object of unwanted sexual advances.

2.5.2 Nigeria Architectural Practice

In the Nigerian State, where women make up about 50% of the population, they play important roles as mothers, producers, managers, community developers/organisers, etc. (Abdullahi et al., 2011). Women contribute more than half as much as men do to the social and economic advancement of civilisations because of their dual responsibilities in the reproductive and productive domains (Iwelumor et al., 2020). The birth of recognizable architecture in Nigeria can be attributed to the works of early missionaries who were the forerunners of the colonialists (Musa, 2017). After that, the shift in the country's political structure as precipitated by colonialism had a domino effect on the

prevailing architectural styles of the region as indigenous housing forms gave way to gothic revival cathedrals and neoclassical architecture of Government buildings in the Lagos area (Adeboye, 2013). At this time, professional architectural practice, likewise the overall building and construction, was dominated by expatriates from the United Kingdom (Adeboye, 2013). In addition, a 2005 study by de Graft-Johnson, Manley, and Greed showed that despite an increase in the number of female students enrolled in architectural programs, the expected rise in the proportion of qualified female architects had not materialised. Considering the skill reliance of female architects in Nigeria, a study carried out by Enwerekowe and Ola-Adisa (2015) with 40 architectural firms sample class showed that 51.6% of the females working in the firms are non-architectural professionals, they further noted that only 5% of senior management staffs females were, while 21% of the female staffs were employed on a full-time basis.

Similarly, indigenous cultural undertones (which regard women as the lower gender in the family, political, societal, professional set-up and gives a preferential treatment to men) in this part of the world, which are deep-rooted in patriarchy typically advocate traditional gender roles, serve as a significant obstacle militating against the participation of a sizeable number of women in this sector (Olanrewaju et al., 2015).

CHAPTER 3. MATERIALS AND METHODS

3.1 METHODS

This study, which focuses on investigating gender discrimination in the architecture profession in Nigeria, was carried out by collecting quantitative data. The field study utilises information from responses gathered from architectural professionals in Nigeria; such includes various incidences of gender discrimination, possible cultural and religious factors responsible for gender discrimination, factors contributing to the enrolment of females for architectural programs and possible factors which can lead to change in gender discrimination in the Nigerian architectural industry.

3.2 PARTICIPANTS

This study used a total of 50 participants practising the architecture profession in Nigeria. The sample participants comprise 14 females and 36 males. The sample class considered for the study were all architects registered with the Architects Registration Council of Nigeria (ARCON). The participants were above 18 years and must have practised architecture profession for at least 2 years after graduation from the university. Furthermore, they were of any ethnic group or religion. The participants below 18 years were excluded from the study and those who have not practised for at least 2 years. A well-structured questionnaire was administered to the participants online and used for quantitative data collection. The participants were recruited ethically via social media and interested participants were informed about the study and that their information was to be used for research purposes.

3.3 DESIGN

This study focuses on variables involving gender discrimination and factors that contribute to or predict it. The study was designed to have both dependent (outcome variable) and independent variables (predictor variable). Gender discrimination in the

workplace was used as the outcome variable, while both the factors (cultural and religious issues) and determinants of enrolment were the predictor variables. Therefore, this study analyses the relationship between gender discrimination in workplaces and the cultural and religious issues as well as determinants of enrolment in architecture.

3.4 QUESTIONNAIRE

This study utilised questionnaires that are specific in determining the various variables. The questionnaire comprises four different sections. The following are the sections in the questionnaire.

Section 1: The first section was for the demographic information of the participants, where their age, educational qualification, marital status and gender were collected.

Section 2: This section comprises eight questions that were used to determine gender discrimination at work. The questions were administered using a 5-point Likert scale where; strongly disagree=1, disagree=2, neutral=3, agree=4 and strongly agree=5. This was scored by summing all the responses, and the highest possible score is 40. The questions were structured such that the higher the score the higher the incidence of gender discrimination at work.

Section 3: This section comprises ten questions regarding the cultural and religious issues/factors that constrain the participation of a particular gender in architecture. The questions were administered using a 5-point Likert scale where; strongly disagree=1, disagree=2, neutral=3, agree=4 and strongly agree=5. This was scored by summing up all the responses, and the highest possible score is 50. The questions were structured such that the higher the score, the higher the impact of the cultural and religious issues in constraining gender participation in architecture.

Section 4: This section comprises five questions that are used to determine the factors that affect gender-based enrolment in architecture programs. The questions were administered using a 5-point Likert scale where; strongly disagree=1, disagree=2, neutral=3, agree=4 and strongly agree=5. This was scored by summing all the responses, and the highest possible score is 25. The questions were structured such that the higher the score, the higher the impact of the factors affecting gender-based enrolment in architecture programs.

3.5 PROCEDURE

To carry out the study, the participants who are registered architects in Nigeria were recruited. The invitation was done via social media, and participants were randomly selected. Interested participants were sent invites via mail stating the purpose of their participation. The study's objectives were clearly stated in the invite for the interested participants to give informed consent. The participants were not enticed or promised any reward for their participation and were made to understand that it was for academic purposes only. The recruited participants were sent the link to the structured questionnaire, designed on the Qualtrics system via email. Information from the participants was collected anonymously to ensure no consequences for their participation. Furthermore, to ensure data safety, only the researcher and supervisor had access to the participants' responses on Qualtrics. Data was gathered from Qualtrics by downloading the responses in CSV file format.

3.6 DATA ANALYSIS

Data retrieved from the participants were cleaned and organised using Microsoft excel software and then analysed using GraphPad prism 7.0. The Shapiro-Wilk test for normality was used to test the dataset if they were normally distributed, where P-value >0.05 was considered statistically significant. Demographic variables such as age, gender, academic qualification and marital status were presented in tables using descriptive statistics such as mean and standard deviation to describe the characteristics of the participants. Multiple regression analysis was then carried out to determine if the factors (cultural and religious) and enrolment factors predict gender discrimination at work. Gender discrimination was the dependent variable, while the factors (cultural and religious) and enrolment factors predicting gender were the independent variables. Furthermore, correlation analysis was carried out to determine the relationship between the predictor variables and the outcome variables. Subsequently, inferential entities derived from the analyses were interpreted and summarised, and conclusions were made. P value < 0.05 was considered statistically significant.

3.7 ETHICAL CONSIDERATIONS

The ethical implications of using humans in research were considered and the study was conducted by adhering to the code of conduct of research and ethical approval for the study was obtained from the University ethics board before the commencement of this study. The Architects Registration Council of Nigeria (ARCON) was also made aware of the study, since their members are considered as the sample class. The participants were not enticed, bribed or coerced to participate in this study. The aims and objectives of the study were clearly stated to the participants and they gave their consent to participate in the study. The participants were made to understand their rights and that their participation is voluntary. They were also made to understand that they can withdraw their consent from the study at any time without consequences. Confidentiality of data was also adhered to ensure safety of the information. Data collected from the participants was done anonymously as the participant's name or any information linking to the identity of the participants was not collected to ensure anonymity.

3.8 RESULTS

3.8.1 DEMOGRAPHY

The data collected shows that 28% of the study participants were females, while the remaining 72% were males. Also, two groups were recorded for educational attainment, where those with bachelors and postgraduate were 34% and 66%, respectively of participants (**Table 3.2**). Most of the participants were between the age of 26-45 years (90%) and the remaining 10% were below 25 years (**Table 3.3**). for the marital status, the data collected shows that 68% of the participants were single and 32% were married (**Table 3.4**).

Table 3.5 Demography of the dataset

Variables		Percentage (%)
Gender	Female	28
	Male	72
Educational Qualification	Bachelor's	34
	Post-graduate	66
Age	Below 25 years	10
	26-45 years	90
Marital status	Single	68
	Married	32

3.8.2 DESCRIPTIVE STATISTICS

For the participants in the study, the descriptive statistics was used to describe the variables. The mean and standard deviation for workplace discrimination (M=22.02, SD=5.82), Constraining Factors (M=28.36, SD=8.19), and Enrolment factors (M=16.50,

SD=3.50), show that the data points are spread over a range of values from the mean (Table 3.2). The highest values for workplace discrimination, Constraining Factors and Enrolment factors are 33, 40 and 23 respectively while the minimum values are 12, 15 and 9 respectively (Table 3.2).

Table 3.2 Descriptive statistics of the dataset

Variables	N	Mean	Standard Deviation	Standard Error	Lower 95% CI of mean	Upper 95% CI of mean	Minimum	Maximum
Workplace discrimination	50	22.02	5.82	0.82	20.37	23.67	12	33
Constraining Factors	50	28.36	8.19	1.16	26.03	30.69	15	40
Enrolment factors	50	16.50	3.50	0.50	15.51	17.49	9	23

3.8.3 NORMALITY TEST

A normality test was carried out on the variables to determine if the datasets were normally distributed using the Shapiro-Wilk test since the number of participants was less than 100. The test outcome showed that only the enrolment factors were normally distributed since the $p\text{-value} > 0.05$ was considered statistically significant (Table 3.3).

Table 3.3 Shapiro-Wilk's test for Normality

Variables	P value
Workplace discrimination	0.0047
Constraining Factors	0.0004
Enrolment factors	0.2438

P value > 0.05 was considered statistically significant.

3.8.4 MULTIPLE REGRESSION ANALYSIS

To determine if the Constraining Factors and Enrolment factors are predictors of workplace discrimination, multiple regression analysis was carried out with workplace discrimination being the dependent variable and the Constraining and Enrolment factors as the independent variables. The result of the multiple regression analysis shows that there was a statistically significant amount of variance in workplace discrimination, such that $F(2, 47)=10.39$, $p= 0.0002$, $R^2= 0.306$, $R^2_{adjusted}= 0.277$ (**Table 3.4**). The R^2 value indicates that about 30% of the variability of the dependent variable (workplace discrimination) can be explained by the independent variables (Constraining and Enrolment factors).

Table 3.4 ANOVA output and Regression model Summary

Model	Degree of freedom	F	P value	R Square	Adjusted R Square
Regression	2	10.39	0.0002	0.306	0.277
Residual	47				

P value < 0.05 was considered statistically significant

To further understand the regression model, the outcome of each predictor was assessed. The Constraining factors variable was a significant predictor of workplace discrimination, $\beta= 0.46$, $t(47)=2.73$, $p= 0.01$; an increase in constraining factors by a unit score means a 0.46 unit increase in workplace discrimination 95%CI[0.12, 0.80] (**Table 3.5**). On the contrary, the enrolment factors variable was an insignificant predictor of workplace discrimination, $\beta= -0.18$, $t(47)=-0.47$, $p= 0.64$, such that a unit score increase of enrolment factors equates to a 0.18 decrease in workplace discrimination 95%CI[-0.98, 0.61] (**Table 3.5**).

Table 3.5 Regression Coefficients

Variables	Coefficients	Standard Error	T	P value	95.0% Confidence Interval	
					Lower Bound	Upper Bound
Workplace discrimination	12.05	3.50	3.45	0.001	5.02	19.08
Constraining Factors	0.46	0.17	2.73	0.01	0.12	0.80
Enrolment factors	-0.18	0.39	-0.47	0.64	-0.98	0.61

P value <0.05 was considered statistically significant

3.8.5 CORRELATION

The relationship between the variables was also determined using correlation analysis. The test was carried out between the dependent variable (workplace discrimination) and independent variables (constraining and enrolment factors). Since the data were not normally distributed (**Table 3.3**), Spearman's correlation (r) test was used for the correlation analysis to determine the relationship between the variables. The result of the correlation analysis shows that there was a moderately positive correlation between workplace discrimination and constraining factors $r(48) = 0.48$, $p = 0.0004$ (**Table 3.6**), and the result is summarised by a scatter plot (**Figure 3.4**).

Table 3.6 Correlations between Workplace discrimination and the independent variables (Constraining Factors and Enrolment factors)

Workplace discrimination vs	Spearman r	P value	N
Constraining Factors	0.48	0.0004	50
Enrolment factors	0.49	0.0003	50

P value <0.05 was considered statistically significant

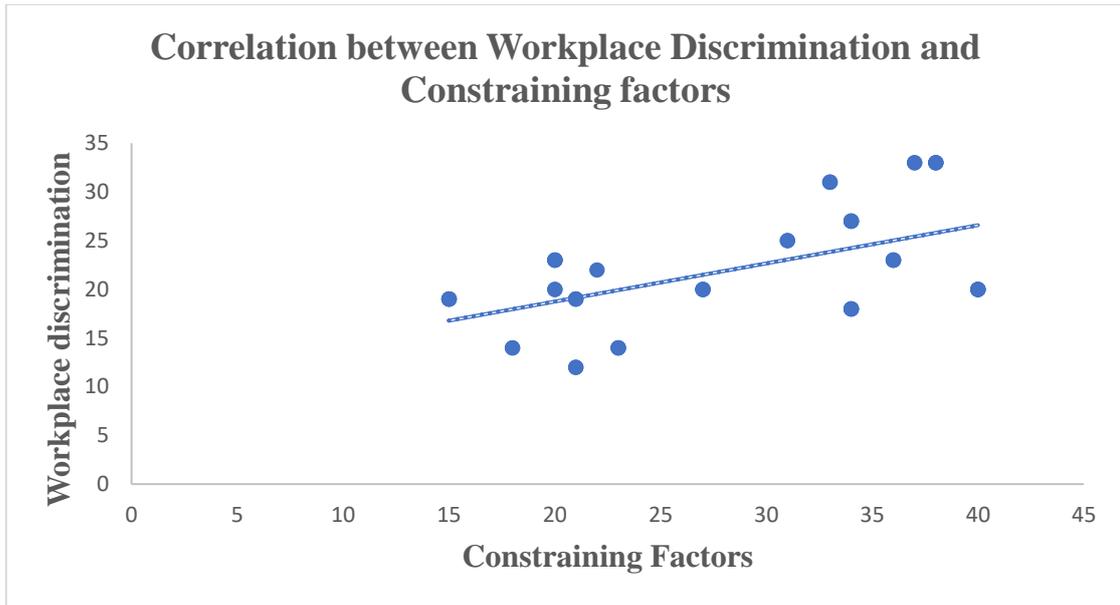


Figure 3.1: Correlation between workplace discrimination and constraining factors

Also, there was a positive correlation between workplace discrimination and enrolment factors $r(48)= 0.49, p= 0.0003$ (Table 3.5), and the result is summarised by a scatter plot (Figure 3.2).

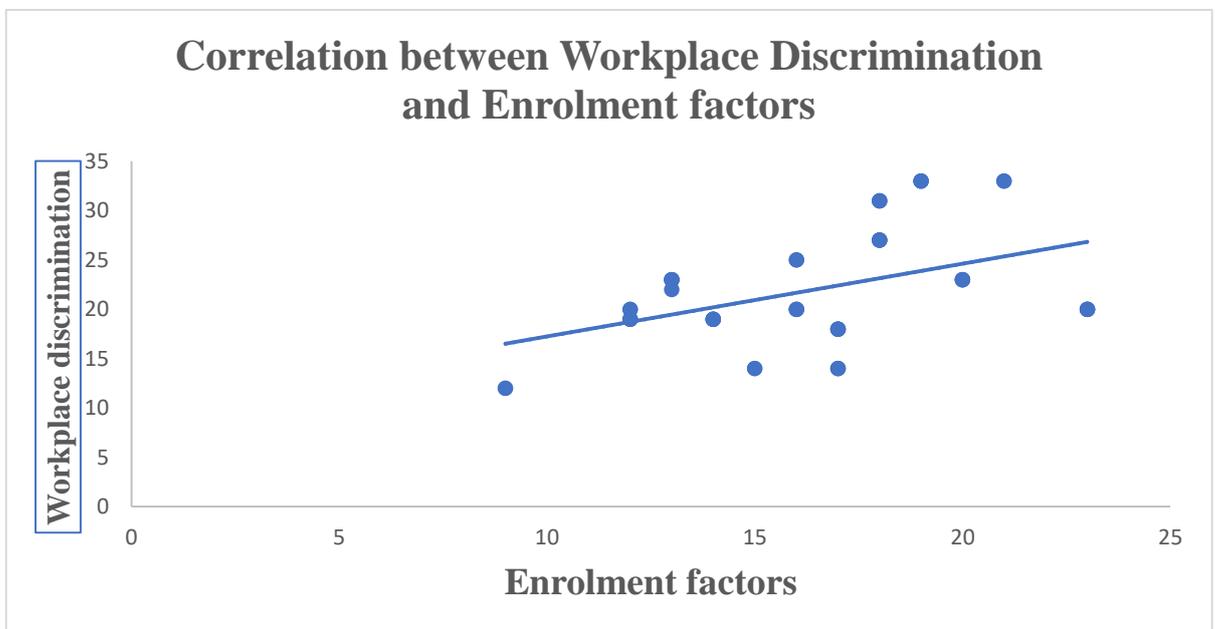


Figure 3.2: Correlation between workplace discrimination and enrolment factors

3.8.6 ASSUMPTIONS

The assumption in this study is that;

Null hypothesis $H_0: \beta_1 = \beta_2 = 0$

Where β is the predictor variables

Alternate hypothesis H_1 : at least one of the predictor variables is not equal to 0

$\beta \neq 0$

The result of the regression model in the study showed that the overall significance was 0.0002 (**Table 3.4**), which implies that the null hypothesis H_0 (Constraining (Cultural and religious) factors and enrolment factors will not predict gender discrimination in the workplace) will be rejected since $p < 0.05$ is considered statistically significant. This indicates that at least one of the independent variables is a predictor of workplace discrimination.

Therefore, the assumptions for the predictor variables are as follows;

For constraining (Cultural and religious) factors

$H_0: \beta_1 = 0$

$H_1: \beta_1 \neq 0$

Where β_1 is the constraining factors variable

The result shows that the $p = 0.01$ (**Table 3.5**); hence the null hypothesis will be rejected, implying that the constraining factors variable was a significant predictor of workplace discrimination.

For enrolment factors,

$H_0: \beta_2 = 0$

$H_1: \beta_2 \neq 0$

Where β_2 is the enrolment factors variable

The result shows that the $p = 0.64$ (**Table 3.5**); hence we fail to reject the null hypothesis, thus implying that the enrolment factors variable was not a significant predictor of workplace discrimination.

CHAPTER 4. DISCUSSION AND CONCLUSION

4.1 DISCUSSION

The construction industry being one of the largest employers of labour in Nigeria, contributes enormously to the GDP and economic development of the country. The industry comprises several professionals but is mostly dominated by men. Reports have shown that Women are hardly employed in the construction industry because of culture, tradition, and religious beliefs. Jimoh et al. (2016) noted that few or no women are employed in specialized or other professional employment in the construction industry, with the majority of women working in management, clerical, messenger, assistance, or labour roles. Furthermore, in addition to the low participation of females in the industry, it was important to determine if there are trained female professionals in the field hence, the factors influencing gender-based enrolment in architecture programs were important to be investigated.

In this study, constraining factors were used as predictor variables to determine workplace discrimination. This study showed that there was evidence of workplace discrimination as the mean score was 22.02 (**Table 3.2**). Furthermore, the constraining (cultural and religious) factors variable was the only significant predictor of workplace discrimination of the two predictor variables. Although both predictor variables (constraining and enrolment factors) had a positive correlation with workplace discrimination. The null hypothesis in this study was that Constraining (Cultural and religious) factors and enrolment factors will not predict gender discrimination in professional architecture practice in Nigeria. The null hypothesis was rejected since the outcome of the regression analysis was significant (**Table 3.4**) since the p-value < 0.05 was considered statistically significant. This indicates that at least one of the predictor variables was a predictor of workplace discrimination. Hence, hypothesis testing was done for each of the variables and only the constraining factors variable was significant in predicting workplace discrimination. Therefore, the null hypothesis was rejected (**Table 3.5**)

The study's outcome can be linked to several studies that have attempted to determine the factors that affect workplace discrimination, particularly in the construction industry. It is not surprising that studies are attempting to determine the causes of gender-based discrimination, as gender equality is one of the critical sustainable development goals to ensure sustainability. According to (Pokoyeuzu et al., 2012), the percentage of women participating in one sort of activity in Nigeria is 43.1%, compared to the percentage of men participating in activities of 56.9%. Because women's engagement in generating economic money has not yet been felt, this statistical measure left much to be desired. Although, one would think that gender discrimination in architecture as a profession would have reduced despite the involvement of more female students studying the profession as a course in the university and the fight against gender discrimination in 2022. However, the results in this study are in accordance with the works of (Adeyemi et al., 2006), who reported that ethnic differences in sociocultural, ethics, and morals might be to blame for women's lack of interest in construction jobs in Nigeria. According to the author, some of the contributing causes include sexual harassment, a lack of confidence, conventional or religious beliefs, and "one-man-many wives," who place a higher importance on a man's education than a woman under the guise that a man's children are his parents' heirs. Furthermore, despite the enrolment factors variable not being a predictor of workplace discrimination, it was however correlated with workplace discrimination which is in accordance with the report of (Akomolafe et al., 2014), who stated that women's participation and enrollment rates in Nigeria are appallingly low in both the industrial and academic facets of the construction industry. This shows that more policies still need to be put in place to reduce the gender gap in architecture, and the construction industry.

Only 16.3% of the workforce was female, according to a report on comparative research (Adeyemi et al., 2006) on women and men participating in the construction sectors. The survey also found that 50% of these women were labourers, 37.5% were office workers, 10% were managers, and only 2.5% were skilled workers. Furthermore, it was also stated in the study that based on their findings that women are underrepresented in Nigeria's construction industry because they favour administrative and other low-skilled professions over those requiring building expertise. The traditional view in Nigerian society was that men should be the only ones with construction-related

abilities. These cultural beliefs are widespread throughout Africa and are not exclusive to Nigeria. They argued that parenting myths, in particular, are used to excuse gender discrimination against women in the workplace. Motherhood myths include the notion that women make excellent parents and that stay-at-home mothers are intimately connected to their children and provide them with unequalled nurturing settings (Verniers & Vala, 2018). Contrarily, motherhood myths pathologize alternative parenting practices by depicting working mothers as neglecting their parental duties, jeopardizing family ties, and weakening mother-child ties. Motherhood myths may serve more extensively as an explanation for gender discrimination regarding job opportunities beyond their negative influence at the individual level of parental choices. Men's involvement in childcare and women's attempts to gain authority in the workplace may be hampered by motherhood myths' psychological barriers (Verniers & Vala, 2018).

4.2 LIMITATION

This study was associated with certain limitations. The sample size was a limitation due to the scope of the study. The factors attributed to gender-based workplace discrimination differ. It is essential to broaden the scope of the study to compare organisations based on geographical location in Nigeria. The variables used in the study are another limitation as other factors such as experience and health are essential in the construction industry.

4.3 IMPLICATION AND FUTURE RESEARCH

This study implies that the outcome should influence organisational structures and human resources policies such that the likelihood of making gender-biased HR-related decisions and/or behaving in a sexist manner when enacting HR policies is reduced. The outcome of this study should also be an indication for government policies to be directed towards creating an enabling work environment for all. Further studies should be carried out to consider other variables such as health and experience, which may contribute to gender-based discrimination in the construction industry.

4.4 RECOMMENDATION AND CONCLUSION

The building construction industry is essential to a country's economic development. This industry makes up a sizeable portion of each nation's Gross Domestic Product (GDP). Statistics from the majority of these nations revealed that despite the advantages of the construction industry, the participation of women is minimal. A significant portion of women working in the construction industry in developing nations like Nigeria are solely employed as labourers or helpers, administrative personnel, catering services, management, and so forth. In this study, it was discovered that several constraining (cultural and religious) factors, including sociocultural norms, values, and religious elements, contributed to the low involvement and gender-based workplace discrimination in professional architecture. Globally, women opt to work in fields like teaching, decorating, catering, fashion design, childcare giving, etc., even when they have formal training in building construction trades, despite their dedication, hard work, and other traits.

Since the majority of women in the globe are unemployed or underemployed, women's empowerment is crucial. Empowering them will help her personally and the entire globe because they are just as capable, brilliant, and talented as males. Empowering women may have positive economic effects, reduce domestic violence and corruption, and ultimately promote national development (Sagayavani and Mary, 2021).

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APPENDIX

Appendix 1: Questionnaire

Participants' Information Sheet (PIS 1)

Title of study: Decoding Factors That Contribute to Gender Discrimination in Architecture Profession in Nigeria

Name of Researcher: Sanusi Abdulmaliki

This research questionnaire on decoding gender discrimination in contemporary architecture practices in Nigeria forms part of the assessment criteria for awarding a Master's Degree in Architecture at the Okan University Istanbul. The research aims to investigate gender discrimination issues in conventional architecture practices in Nigeria. It also seeks to identify the causal and potential change factors of gender discrimination in Nigeria's building industry. Furthermore, it will examine the cultural issues constraining female participation in the building industry, particularly in architecture.

Whether or not you participate in this project is absolutely up to you. It should take you about 5 to 10 minutes to complete the questionnaire. I understand that completing the questionnaire will take some time; nevertheless, it will help us better understand the existence, scale, and causes of gender discrimination in the Nigerian architecture industry. Please rest assured that any information you provide will be kept strictly confidential.

On behalf of Okan University, Istanbul, I, Abdulmalik Sanusi, thank you for your time and contribution to this research. Any further information and the study's outcome will be available upon your request. Please feel free to contact me if you require additional information.

**DECODING FACTORS THAT CONTRIBUTE TO GENDER
DISCRIMINATION IN ARCHITECTURE PROFESSION IN NIGERIA**

SECTION A

Demographic Data of Respondents

1. Sex: Male Female Other
2. Age: Under 25yrs 26-35 36-45
46- 46 56 and above
3. Marital Status: Married Single Widow
Widower Divorced
4. Education Qualification: ND HND Bachelor's
Graduate:

SECTION B

Decoding Gender Discrimination in Modern Dwelling Architecture in Nigeria

European Institute for Gender Equality (2021) defined gender discrimination as any sex distinction, exclusion, or restriction that has the effect or purpose of impairing or nullifying the recognition, enjoyment, or exercise by women, regardless of marital status, of men and women's equality, of human rights and fundamental freedoms in the political, economic, social, cultural, civil, or any other field.

Please Tick As Appropriate

PART I: In this section, we would like you to indicate the extent of your agreement with the statement listed below by clicking a number. The higher the number, the more you agree with the statement.

Where U = Undecided, SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree

S/N	STATEMENT	Strongly Disagree	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree
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		(1)				(5)
Gender Discrimination in the workplace						
1.	I have not experienced gender discrimination in the workplace.					
2.	My supervisor does not consider gender in delegating job assignment.					
3.	My gender does not influence my career progression.					
4.	My colleagues do not treat me differently because of my gender.					
5.	My gender does not affect opportunities within my job to learn and broaden my experience.					
6.	My workplace has a gender inclusive culture					
7.	There were occasions on site where I felt was harassed or bullied due to my gender.					
8.	Men are generally more technically competent than women					
Causal factors of gender discrimination in Nigeria's building industry						
9.	Outdated societal expectations					
10.	Job stereotypes or segregation					
11.	Personal sense of entitlement					
12.	Low level of literacy					
13.	Poverty					
14.	Religious beliefs or practices					
15.	Cultural beliefs or traditions					
16.	Lack of political representation					
17.	Lack of favourable laws protecting women rights					
Cultural factors constraining female participation in architecture practice						

18.	Marital status affects my participation at work.					
19.	Religious beliefs or practices have a strong influence on my participation levels.					
20.	Traditional gender roles or stereotypes affect my participation negatively.					
21.	Societal expectations or biases affect how I carry out my assigned tasks.					
22.	Gender discrimination represents behaviour which is largely normalized in my geographical location.					
23.	Customs or beliefs of my tribe influences how well I participate in architecture-related activities.					
24.	Cultural values or ethics impact my level of participation.					
25.	Parental influence or opinions negatively impacts my level of participation					
Factors contributing to the low enrolment figures of females into architecture programmes of Nigerian tertiary institutions						
26.	Low academic performance					
27.	Lack of awareness					
28.	Societal perception of architecture as a stereotypical male-oriented profession					
29.	Low salaries and other remuneration					
30.	Widespread discouragement from enrolling in an architecture degree programme due to gender?					