FEMALE STUDENTS' CARRIER CHOICES: HOW GENDERED ROLE AFFECTS WOMEN'S PARTICIPATION IN NIGERIAN REAL ESTATE PROFESSION

Augustina Chiwuzie^{1*}, EleOjo Grace Aiyepada³ and Edith Mbagwu Prince²

1,2,3 Department of Estate Management and Valuation, The Federal Polytechnic Ede, Nigeria

*okaugusta@yahoo.com; chiwuzie.augustina@federalpolyede.edu.ng (corresponding author)

Abstract

A career decision is a critical task, often impacted by events and circumstances rather than the training the students receive in school. Female graduates in the built environment are frequently conservative in their career choices in the real estate industry; as a result, women are underrepresented. This study employs quantitative and qualitative research designs to explore how graduating female real estate students' experiences influence their long-term career choices and how their choices affect women's participation in Nigeria's real estate profession. A survey of graduating female real estate students from two universities and two polytechnics in South-west Nigeria was used to collect quantitative data for the study. Qualitative data was gathered through interviews with recent female real estate graduates. The analysis presents the study's findings on students' motivation for pursuing a real estate degree, challenges encountered in real estate education, perceptions of the real estate practice environment, and how these experiences influence their long-term career choices. The study concludes that the real estate practice environment is unappealing to female graduates. Hence, there is a need for concerted efforts toward attracting and retaining female graduates in the real estate profession to support the industry's business development and growth.

Keywords: Attracting and retaining women in real estate, Career decision, Gender stratification, Real estate education, Real estate practice environment.

1.0. Introduction

Gender inequality in the workplace is a crucial source of concern and has sparked an intense public debate in many domains. The real estate industry contributes significantly to a country's overall economy and is critical to the valuation, agency, management, and construction industries (Warren and Antoniades, 2016). Real estate is a significant employer of labour and a well-known industry worldwide. However, research indicates bias and discrimination against women in the real estate profession, resulting in women being underrepresented in the profession (see, Oladapo, 2017; Jimoh et al., 2016; Azhar et al., 2014; Lietz, 2012). The real estate industry's male-dominated character has remained constant throughout time (Pauli, 2013).

The public and private sectors have tried to address the gender gap, and several countries have made little progress. According to Polgar (2014), women brokers account for 57 per cent of the residential real estate market in the United States; however, this success story has yet to be reproduced in other profitable sectors such as commercial and development sectors (McCormick, 2014). Hirigoyen (2014) found that women account for 11% of the UK's real estate practitioners, indicating that their level of participation is increasing. Women dominated Malaysia's real estate profession in 2009, according to data from the country's Department of Statistics (DOS). The percentage of women involved in Malaysian real estate is 5.9 per cent, somewhat higher than the 5.3 per cent stated for males (DOS, 2012). Mhlange (2015) emphasised the significant achievements of South African women in the real estate profession. Despite accounting for 48% of the labour force in Nigeria (World Bank, 2022), women remain underrepresented in Nigeria's real estate industry (Obih, 2014). The membership records of the Estate Registration Board of Nigeria (ESVARBON) and the Nigeria Institution of Estate Surveyors and Valuers (NIESV) revealed 20 - 25 per cent female participation in the estate management profession in Nigeria (see, Omogor et al., 2015; Odudu, 2014).

There are several reasons for women's underrepresentation in the workforce. Cultural values, institutional and societal standards, expectations and prejudices about how men and women should act in society were all underlined by Yukongdi and Benson (2006). According to Sewalk and Netfield (2013), recruiting females in the sector is influenced by industrial traditions, organisational cultures, and sexist ideas. Female employees are thus employed in administrative or secretarial tasks rather than their core profession (Adogbo et al., 2015). These factors may lead to women's discontent and underutilisation. Women frequently leave

such settings and move on to other sectors, resulting in their underrepresentation in the real estate industry.

Male dominance in real estate student enrolment and graduation in tertiary institutions has been similarly validated by research in real estate education (see, Chiwuzie et al., 2021; Ayodele, 2018; Ayodele et al., 2017). Despite this, the number of female students enrolling and graduating from tertiary institutions' real estate education programmes has steadily increased. However, this increase is not reflected in the workforce (Fernando et al., 2014). The difference between the number of women graduating from higher institutions and those working in the real estate industry shows that female real estate students consider alternative career options after graduation. A career decision is a critical task, often impacted by events, circumstances and challenges rather than the training the students receive in school. The challenges that female students face during their undergraduate education have been broadly classified as internal and external barriers (Ling Yean Yng and Pei Poh, 2004) to a career decision. It has been suggested that the ".... gap in career choice may be caused by gender role perceptions among people" (Phathara-on et al., 2016, p17). This study explores how graduating female real estate students' experiences influence their long-term career choices and how their choices affect women's participation in Nigeria's real estate profession. The study examines female students' motivation for pursuing a real estate degree, challenges encountered in real estate education, perceptions of the real estate practice environment, and how these experiences influence their long-term career choices.

2.0. Literature Review

2.1. Motivations for real estate education

Making a career choice is a complicated process that impacts many elements of a person's life (Hall, 1996). Selecting a career is critical for people's working lives and is often decided in a person's final year in secondary school (Madikizela and Haupt, 2010). According to Bigelow et al. (2016), high school students typically struggle with career choices, and more than 80% of students in higher education believe they selected their profession too soon. Some of these students even claimed that if given a chance, they would change their careers. Choosing a professional path is a significant problem for graduates since it will have long-term consequences (Ayodele, 2018). The factors that motivate students to seek careers often influence their choices (Agarwala, 2008; Chileshe and Haupt, 2010). Several studies have

revealed various factors that motivate female students to pursue careers within the real estate industry. Among them are school counsellors and teachers (OstadaliMakhmalbaf, 2014; Santrock) (2005). Parents, family members, friends, role models, peers and gender influence (OstadaliMakhmalbaf, 2014; Maina, 2013), having a family member in the industry, a mentor, job opportunities available after graduation (Bigelow et al., 2016), industry experience (Bigelow et al., 2016; Koch, 2009), career exposure from professional organisations and financial considerations (Ghani et al., 2008).

Empirical studies on the impact of the motivating factor yield conflicting results. According to Odia and Ogiedu (2013), career prospects and good salaries were primary influencing factors. In Maina (2013), role models had the most significant impact on student's career choices, followed by peers and gender influence, while the students' families had the most negligible influence on their career decisions. According to Pablo-Lerchundi et al. (2015), parental and familial influences significantly impact students' career decisions. Korir and Wafula (2012) reported that career prospects and contextual variables influenced most students' career choices, while personal considerations had less impact. Ng et al. (2017) found that students' exposure to career-related information through professional organisations, role models, practitioners and lecturers are significant factors in determining their career choices. According to Moraba and Babatunde (2019), the availability of work opportunities, prospective financial stability, the industry's image, and the influence of mentors, the media, and family members were all critical factors in graduating female students' choice of a career. Gambo et al. (2012) submitted that several estate management students wandered into the course due to a course change during the institution's admission process. Gambo et al.'s study further found that peer influence, prior work experience, family influence, and early school counselling were the least motivating factors for real estate education.

2.2. Career challenges faced by females in real estate education

According to Dainty et al. (2000), a woman's career plan is influenced by personal characteristics, life circumstances, abilities, and perceptions about the industry and working conditions. Female undergraduate students identified challenges that Ling Yean Yng and Pei Poh (2004) classified as internal and external barriers. According to Moroba and Babatunde (2019), internal barriers refer to the challenges that female students experience in their education. In contrast, external barriers allude to challenges that have persisted in the industry for many generations but over which female students have no influence (Ling Yean Yng and Pei Poh, 2004). Ling Yean Yng and Pei Poh identified the perceived nature of the

property industry, working circumstances and sexist attitudes as external hurdles graduating female students face in the property industry. Table 1 depicts the various challenges that have been identified in previous studies.

Table 1 Internal and external barriers to career choice and Authors

Career barriers	Authors	
Internal barriers		
Male-Dominated faculty staff and lecturers	Adogbo et al. (2015); Shane et al. (2012)	
Lack of Networking opportunities	Bigelow et al. (2017), Shane et al. (2012)	
Male students do not readily accept female	Ling Yean Yng and Pei Poh (2004).	
students		
Female students face gender-based	Francis and Prosser (2014), Madikizela and Haupt	
harassment.	(2010).	
Male culture exists in the classroom	Ling Yean Yng and Pei Poh (2004).	
Discrimination against female students	Francis and Prosser (2014), Madikizela and Haupt	
	(2010)	
External barriers		
Male-dominated cultures in the industry	Ginige et al. (2013), Sewalk and Neitfeld (2013),	
	Worrall et al. (2010), Madikizela & Haupt (2010).	
Gender stereotyping in the industry	Astor et al. (2017).	
Women face a glass ceiling.	Astor et al. (2017), Ling et al. (2014)	
Isolation, lack of role models and mentors in	Francis (2017), Agherdien and Smallwood (2013),	
the industry	Winn (2004).	
Long and inflexible working hours	Barreto et al. (2017). Astor et al. (2017),	
	Ling et al. (2014), Worrall et al. (2010), Winn (2004).	
The difficulty of balancing work and family	Barreto et al. (2017), Ling et al. (2014), Winn (2004).	
responsibilities		
The industry has a poor image as "dirty."	Fielden et al. (2000).	
Sexual harassment	Karim and Tumin (2009), Mattis (2004), Dainty et al.	
	(2000).	

2.3. Challenges faced by professional women in real estate

Women are routinely denied professional advancement due to institutional and cultural barriers, particularly in the real estate business (Caven, 2006). The significant difficulties that women must overcome are the sexist attitudes that include gender stereotypes and the glass ceiling in the workplace (Astor et al., 2017). According to Mattis (2004), stereotypes and misperceptions about women's abilities, long-term commitment to business careers, exclusion from informal networks and channels of communication, lack of access to mentors, managers' unwillingness to "risk" placing women in important development assignments, salary disparities and sexual harassment are all barriers to professional women's

advancement. Ling et al. (2014) observed that the primary causes of poor female participation in the real estate business include inflexible work schedules and a lack of infrastructure that allows women to return to the profession after taking time off to care for family commitments. Dainty et al. (2000) posited that harassment and bullying are just two of the overt and covert types of prejudice directed against women.

In Kaduna, Nigeria, Ishaya et al. (2011) studied the barriers women experience in the real estate profession. The perception that women are incapable of practising the profession, women surveyors are considered lazy and inept, managing job and family duties, needing to work fewer hours owing to household obligations, and a distaste for travelling were among the challenges they discovered. Oluwunmi et al. (2017) discovered that female estate surveyors and valuers in Lagos, Nigeria, struggle to manage work and family life. Women are considered incapable of practising the profession due to their failure to meet the essential requirements, which include frequent travel due to home commitments, which their male counterparts perform efficiently. Furthermore, female estate surveyors and valuers reported that sexual harassment was the least challenging aspect of their work.

Women's professional challenges are not exclusive to the real estate industry. Punnett (2016) revealed that women in the workplace suffer gender-based challenges worldwide. Women have historically been marginalised and excluded as a group, and as a result, women face prejudice and discrimination, including sexual harassment, particularly in male-dominated workplaces (Joseph et al., 2021). Zwiech (2009) recognised several sorts of discrimination against women, including employment, professional, position, access to training, and wage discrimination. According to studies from many sectors, including health (Joseph et al., 2021; Aberg et al., 2017) and construction (Akinlolu and Haupt, 2020; Moroba and Babatunde, 2019), work experience for most professional women is challenging due to the presence of bias and discrimination against women. Several studies have examined the experience of gendered cultures and the gender inclusion of students in male-dominated workplaces (Alves and English, 2018; Male et al., 2017). These research findings demonstrated that students reported experiences congruent with gendered cultures; there was the marginalisation of women, or stereotypically feminine practises or qualities) and the privilege of stereotypically male practices or features.

3.0. Methodology

This study employed quantitative and qualitative research designs. The study's target group comprises graduating female estate management students and recent female real estate graduates working in professional real estate firms. The graduating female students were drawn from two South-western Nigerian universities (Obafemi Awolowo University, Ile-Ife, and the University of Lagos, Akoka) and two Polytechnics (Federal Polytechnic Ede and Yaba College of Technology, Yaba). The final year female students in these four institutions were 500-level students in the Universities and the Higher National Diploma (HND) II students in the Polytechnics. These categories were chosen because they are currently at the exit stage and have a greater understanding of the scope and nature of real estate education and training. The study's quantitative data was collected through online and self-administered questionnaires. Convenience sampling was used to select 41 graduating female real estate students from all four institutions. Furthermore, employing convenience and snowball sampling, qualitative information was gathered from interviews with five recent female real estate graduates working in professional real estate firms.

In developing the questionnaire, factors influencing career choices and career barriers were drawn from the literature. The identified variables were organised into three themes: reasons for pursuing a real estate degree (motivating factors), difficulties encountered during real estate education (internal barriers), and perceptions of the real estate practice environment (external barriers). The students were asked to rate individual factors using a five-point Likert scale. The ratings ranged from 1 (strongly disagreed) to 5 (strongly agreed). The mean rating and standard deviation were used to rank the various responses. The level of significance of each response to a specific factor was determined. Other studies (Lan 2019, Ayodele 2018, Chileshe and Kikwasi 2014) utilise a benchmark of 3.00 (the neutral point on a 5-point scale) to assess the significance of mean-rated items/factors. Items with mean scores higher than 3.00 were significant and impactful, but those with mean scores lower than 3.00 were not. The Cronbach's alpha test was used to examine the internal consistency and reliability of the scales used in this study. The findings demonstrate that the scales as a whole have good reliability.

4.0. Discussion of Results

This section contains a discussion of the study's findings. The findings are organised and discussed following the study's objectives. Tables 2–4 show female students' motivation for studying real estate, problems experienced in real estate education (internal barriers), and perceptions of the real estate practice environment (external barriers). The comments from the interviews with female graduates are cited in-text to help explain the study's findings. Finally, the impact of female graduates' experiences and career choices on women's participation in Nigeria's real estate profession was highlighted.

Table 2 Female students' motivation for pursuing a real estate degree

Motivating factors	Mean score	SD	Remark
Financial prospects	3.49	1.07	Significant
Career opportunities available	3.68	1.03	Significant
Family and friends influence	2.88	2.11	Not Significant
Media	2.82	2.88	Not Significant
Role models or mentors	2.65	2.43	Not Significant
Teacher and career counsellors	2.60	1.86	Not Significant
Having a parent in the industry	2.49	2.32	Not Significant
Previous experiences in the real estate profession	2.46	2.36	Not Significant

According to Table 2, the financial prospects that come with real estate practice (mean = 3.49) and the career opportunities open to graduating students (3.68) after graduation were the significant motivations for their decision to study real estate. This outcome collaborated with the findings of Ogiedu (2013) and Wafula (2012). On the other hand, the influences of family, friends, the media, role models, mentors, teachers, career counsellors, having a parent in the business, and previous real estate experience were not significant motivators for real estate education. Although this conclusion contradicts those of Moraba and Babatunde (2019), Ng et al. (2017) and Pablo-Lerchundi et al. (2015), the standard deviation of responses suggests that these factors did apply to some of the graduating female students. This finding suggests a paucity of information on real estate careers in the public domain. By revealing that some students had no prior knowledge of estate management as a course of study, the interview responses support Gambo et al. (2012)'s assertion that some Nigerian real estate students slid into the course due to a change in the course during admission by the university. During the interview, the female graduates said:

"I applied for mechanical engineering but was offered Estate Management, I accepted the offer since I did not want to waste another year in waiting." (Female graduate 1, 2020).

"A family friend suggested I study estate planning. Despite not knowing anything about the course, I enrolled since I was informed that I would have no trouble finding work and could even work on my own. So far, I have enjoyed the course, and I have encouraged my younger brother to pursue a career in estate management" (Female graduate 2, 2020).

Table 3 Challenges encountered by female students in real estate education

Internal barriers	Mean score	SD	Remark
Male-Dominated faculty staff and lecturers	4.24	0.73	Significant
Lack of Networking opportunities	3.78	0.98	Significant
Male students do not readily accept female students	3.52	1.06	Significant
Female students face gender-based harassment in real estate education	3.48	1.87	Significant
Male culture exists in real estate education	3.42	2.13	Significant
Discrimination against female students	3.36	2.09	Significant

Table 3 shows the average mean scores and standard deviation for the challenges encountered by female students in real estate training. Each of the six internal barriers had a mean score higher than 3, suggesting that they significantly influenced the students' real estate education. Previous studies (Barreto et al., 2017; Adogbo et al., 2015; Francis and Prosser, 2014) have placed each element as a significant barrier. The considerably large standard deviations clearly show the high degree of variance in responses among the students. This variation suggests that the students have faced several challenges relating to internal barriers. These experiences are likely to influence female students' career choices after graduation. The female graduates had these to say:

"The challenge I had in my estate management study was the lack of a female lecturer I could confide in. There were occasions when I needed to talk to a senior female regarding academic or personal matters. All of the staff were men, and I was concerned that they may take advantage of me while offering such support" (Female graduate 1, 2020).

"During my undergraduate studies, my class was male-dominated, with

female students being made to feel less capable or being undermined. It was difficult for me since sexist and negative attitudes tend to impair one's self-esteem and confidence" (Female graduate 2, 2020).
"I had no female mentors to support me and no networking opportunity for me to receive adequate career guidance" (Female graduate 4, 2020).

Table 4 Female students' perceptions of the real estate practice environment

External barriers	Mean score	SD	Remark
Male cultures evict in real estate prestice	3.80	1.04	Cignificant
Male cultures exist in real estate practice			Significant
Gender stereotyping occurs in real estate practice	3.71	1.21	Significant
Female graduating students face a glass ceiling	3.64	1.09	Significant
Lack of role models and mentors in the industry	3.54	1.56	Significant
Real estate practice has long and inflexible working	3.47	2.06	Significant
hours			
Real estate practice occurs at the expense of family	3.34	2.13	Significant
responsibilities			
The real estate practice has a poor image	2.91	1.94	Not significant
Sexual harassment	2.87	2.32	Not Significant
Real estate practice is masculine	1.76	1.03	Not significant

Table 4 shows the results of the nine perceived external barriers female graduates face in the real estate practice environment. Three barriers have mean scores less than three, while six have mean ratings higher than three. According to these data, the six significant barriers prevent graduating female students from entering the real estate sector. These factors have also been identified in the literature as the most significant challenges confronting women in the property industry (see, Barreto et al., 2017; Adogbo et al., 2015; Francis and Prosser, 2014). Three non-significant impediments identified include real estate practice has a poor image (mean score = 2.91), sexual harassment (mean score = 2.87), and t real estate is masculine (mean score = 1.76). Below are the interview responses on the challenges faced by female graduates in real estate practice. In female graduates' words:

"..... I went to an estate firm looking for a job last year, but I was informed the firm only wanted a male candidate." My friend had a similar experience. I believe estate surveyors and valuers prefer hiring male surveyors to female surveyors, which is sad" (Female graduates in 2020).

"I have suffered prejudice based on the responsibilities allocated to me. Males are allocated more professionally inclined occupations with higher pay levels than females. I have had clients insist on a male estate agent or estate surveyor and valuer. I was irritated since I could perform the work and it is only a matter of time before I take another career path" (Female graduate 2, 2020).

"Women still have a long way to go in real estate practises. Principal partners and clients have reservations about women's professional capabilities. Women are not always afforded the same chances as men. This explains why females engaged in estate businesses seldom undertake core practise but instead perform secretarial responsibilities, which is disheartening" (Female graduate 3, 2020).

"The issue for me is that I don't have any female real estate mentors. This has been a challenge for me since I was in school. You see and hear about women are successful in the field, but you do not have access to them, and there is no platform to motivate and encourage young females to pursue career in real estate industry" (Female graduate 4, 2020).

"The real estate profession is male-dominated, and I believe this is due to the nature of the work. Long working hours, including weekends, are frequently required in real estate profession. Combining professional requirements with family commitments is difficult for me as a married woman" (Female graduate 5, 2020).

4.1. Female students' experiences, career choices and women's participation in Nigeria's real estate profession

Finally, female graduating students were asked if they planned to work in professional real estate firms after graduation. The results show that 63.4 per cent of female graduating students surveyed affirmed interest in working in real estate firms. In comparison, 26.8 per cent preferred to choose other sectors, while 9.8 per cent were uncertain about their carrier path. This result suggests that most graduating female students are interested in a career in real estate. This passion, however, appears to be stifled because it does not reflect in the Nigerian real estate industry (which has a low female participation rate), meaning that female real estate students pursue alternate career routes after graduation. Chileshe and Haupt (2010) and Agarwala (2008) posited that students' career decisions are influenced by the factors that motivate them to choose a career. Analysis of the motivating factors in this study revealed that the career opportunities accessible to graduating female students after graduation and the financial prospects that come with real estate practice were the significant

factors that motivated them to study real estate.

However, it appears that graduating female students build their career trajectories based on their previous experiences and perceptions of the real estate practice environment. The description of the experiences of graduating female students in Table 3 demonstrates the existence of gender male culture and gender-based discrimination and that female student had to deal with these challenges while pursuing a real estate education. Graduating female real estate students reported not having mentors and networking opportunities as challenges. Naturally, these experiences would have impacted the perceptions of graduating female students about the real estate profession, as seen in Table 4. Once again, it is perceived that male culture, gender stereotyping and lack of role models and mentors impede women from entering the real estate profession. These findings appear to imply that the perceived gender stratification in the real estate industry is to be blamed for female graduates being conservative in their career choices in the real estate sector, resulting in women's low participation in Nigeria's real estate profession. Furthermore, Bigelow et al. (2018) noted that while deciding on a career path, people usually choose to follow in the footsteps of someone they like. This study's findings imply that there is a gap in this area. Female real estate students and graduates expressed a lack of exposure to persons (female professionals) they look up to, which is disappointing and worrisome. Meanwhile, it is worth noting that the real estate profession's perceived image is not a significant barrier to female entrants. Also, "sexual harassment" and "real estate practise is masculine" have the two lowest mean scores. This result suggests that some female students did not see these barriers hindering women's participation in the Nigerian real estate profession. It is heartening to see these barriers at the bottom of the list; it relieves strain for female students hoping to pursue a long-term career in the real estate industry.

5.0. Conclusion And Implication

This study examined female students' motivation for pursuing a real estate degree, challenges encountered in real estate education, and perceptions of the real estate practice environment with a view to determining how graduating female real estate students' long-term career choices affect women's participation in Nigeria's real estate profession. According to the findings, the significant factors that motivated graduating students to study real estate were the career opportunities open to them after graduation and the financial prospects of real estate practice. Besides, graduating female students faced several challenges, including male

culture, gender-based discrimination, and a lack of mentors and networking opportunities. In terms of perceptions of the real estate practice environment, graduating female students cited masculine culture, gender stereotyping, and a lack of role models and mentors as barriers to women's participation in the real estate profession.

Furthermore, the findings revealed that most (63.4 per cent) of graduating female students surveyed in this study were interested in working in the real estate industry. However, the low level of female participation in the Nigerian real estate profession shows that female real estate students seek alternative career paths after graduation. It indicates that female graduates' career paths are shaped by their experiences and perceptions of the real estate practice environment. The gender stratification within the real estate sector makes the real estate practice environment unappealing to female graduates. Gender stratification in the workplace has also been recorded in several sectors across the globe. Women are discriminated against or marginalised in every human society, which is viewed as an entrenched global pandemic. Organisations across the world are increasingly considering a more inclusive working culture. Hence, there is a need for concentrated efforts to attract and retain female graduates in the real estate profession in order to support the industry's business development and growth. The study's findings could drive real estate organisations in Nigeria and other African countries to develop policy frameworks that encourage women to pursue careers in real estate. The Nigeria Institution of Estate Surveyors and Valuers (NIESV), the Estate Registration Board of Nigeria (ESVARBON), and women professionals must create a forum for women in the real estate sector to come together to share experiences, harness their skills and flourish. Also, symposia should be organised to bring female real estate students and upcoming women in the industry together to interact with successful women professionals in order to spark interest in the practice and drive for success in the industry, as well as to provide a platform for mentoring and networking.

The conclusions of this study, like those of most other studies, must be interpreted in the context of methodological constraints. The survey included only 41 graduating female real estate students from four tertiary institutions and five recent female real estate graduates. Meanwhile, the opinions of the female graduates supported the findings of the analysed questionnaire, implying that the responses analysed were generally applicable. Regardless of this assumption, a more longitudinal study with a larger sample size is necessary.

References

- Aberg, J. A., Blankson, J., Marrazzo, J. and Adimora, A. A. (2017) Diversity in the US Infectious Diseases Workforce: Challenges for Women and Underrepresented Minorities, *The Journal of Infectious Diseases*, 216, (5), 606 610. https://doi.org/10.1093/infdis/jix332
- Adogbo, K.J., Ibrahim, A.D. and Ibrahim, Y.M. (2015) Development of a Framework for Attracting and Retaining Women in Construction Practice. *Journal of Construction in Developing Countries*, 20(1), 99–115.
- Agarwala, T. (2008). Factors influencing career choice of management students in India. *Career Development International*, 13(4), 362-376.
- Akinlolu M. and Haupt, T. C. (2020). Investigating a Male-Dominated Space: Female Students' Perceptions of Gendered Cultures in Construction Workplaces C. Aigbavboa and W. Thwala (Eds.): CIDB 2019, The Construction Industry in the Fourth Industrial Revolution, pp. 43–55, 2020. https://doi.org/10.1007/978-3-030-26528-1_5
- Astor, E. N., Onsalo, M. R. and Infante-Perea, M. (2017) Women's career development in the construction industry across 15 years: main barriers. Journal of Engineering Design and Technology 15(2), 199-221. DOI: 10.1108/JEDT-07-2016-0046
- Ayodele, T. A. (2018) Career choice of real estate students in Nigeria: The explaining influences in comparative perspective, *Property Management*, https://doi.org/10.1108/PM-02-2018-0013
- Ayodele, T. O., Oladokun, T. T., & Oladokun, S. O. (2017), "Factors influencing real estate students 'academic performance in an emerging economy: gender and socioeconomic perspectives", *Property Management*, 35(5), 472-489. https://doi.org/10.1108/PM-08-2016-0041
- Alves, S. and English, J (2018) Female students' preparedness for a male-dominated workplace. *Journal of Engineering, Design and Technology*, https://doi.org/10.1108/JEDT-03-2018-0039
- Azhar, S., Amos, M. K., and Griffin, M. S. (2014). Women in construction: Successes, challenges and opportunities A USACE case study. In: 50th ASC Annual International Conference Proceedings, Washington, DC, USA.
- Barreto, U., Pellicer, E., Carrión, A. and Torres-Machí, C. (2017) Barriers to the professional development of qualified women in the Peruvian construction industry. *Journal of Professional Issues in Engineering Education and Practice*. 143(4), 05017002-1-05017002-10. Doi:10.1061/(ASCE)EI.1943-5541.0000331
- Bigelow, B F, Bilbo, D, Ritter, L, Mathew, M and Elliott, J W (2016) An evaluation of factors for retaining female students in construction management programs.

 International Journal of Construction Education and Research, 12(1), 18-36.
- Bigelow, B. F., Saseendran, A. and Elliott, J. W. (2018) Attracting Students to Construction Education Programs: An Exploration of Perceptionsby Gender. *International Journal of Construction Education and Research*, 14 (3), 179-197. DOI:

AFRES 21ST ANNUAL CONFERENCE 160

10.1080/15578771.2017.1280101

- Caven, V. (2006) Career Building: Women and Non-Standard Employment In Architecture. *Construction Management and Economics*, 24 (5), 456-464. https://doi.org/10.1080/01446190600601354
- Chileshe, N., & Haupt, T.C. (2010) An empirical analysis of factors impacting career decisions in South African construction industry: Male and female high school students' perspectives. *Journal of Engineering, Design and Technology, 8*(2), 221-239.
- Chiwuzie, A., Dabara, D. I., Prince, E. M., Aiyepada, E. G. and Olawuyi, S. T. (2021) Students' perceptions about training on property valuation techniques in selected tertiary institutions in Nigeria In: Laryea, S. and Essah, E. (Eds) Procs West Africa Built Environment Research (WABER) Conference, 9-11 August 2021, Accra, Ghana, 909-924.
- Dainty A R, Bagilhole, B. M. and Neale, R. H. (2000) A grounded theory of women's career underachievement in large UK construction companies *Construction Management and Economics* 18(2), 239-250.
- Department Of Statistics, Malaysia. (2012). Key Indicator of the Labour Market (KILM) Malaysia, 2001-2011. Putrajaya: Department of Statistics, Malaysia.
- Fernando, N G, Amaratunga, D and Haigh, R (2014) The career advancement of the professional women in the UK construction industry: The career success factors. Journal of Engineering, Design and Technology, 12(1), 53-70.
- Fielden S L, Davidson M J, Gale A W and Davey C L 2000 Women in construction: the untapped resource *Construction Management and Economics*, 18(1), 113-121.
- Francis, V. (2017) What influences professional women's career advancement in construction? *Construction Management and Economics*, 35(5) 254-275.
- Ghani, E.K., Said, J., Nasir, N.M. and Jusoff, K. (2008) The 21st century accounting career from the perspective of the Malaysian University students. *Asian Social Science*, 4(8), 73-83.
- Hall, D.T. (1996) The Career is Dead Long Live the Career. A Relational Approach to Career, The Jossey-Bass Business and Management Series. Jossey-Bass Inc., San Francisco, CA.
- Hirigoyen, J. (2014, July 25th). *Stepping up to the Diversity Challenge*. http://www.building.co.uk/stepping-up
- Huffman, A.H., Olson, K.J., O'Gara Jr., T.C., & King, E.B. (2014) Gender role beliefs and fathers' work-family conflict. *Journal of Managerial Psychology*, 29(7), 774-793.
- Ishaya, D., Makama, B. & Sabo, N. (2011). The Duties and Challenges Faced by Female Estate Surveyors and Valuers Empirical Challenges from Kaduna, Nigeria. *Gender Issues in Land Administration*, (4931), 1-12.

AFRES 21ST ANNUAL CONFERENCE 161

- Joseph, M. M., Ahasic, A. M, Clark, J. and Templeton, K. (2021) The State of Women in Medicine: History, Challenges and the Benefits of a Diverse workforce. *Pediatrics* (2021) 148 (Supplement 2): e2021051440C. https://doi.org/10.1542/peds.2021-051440
- Jimoh, R. A., Oyewobi, L. O., Adamu, A. N. and Bajere, P. A. (2016) Women Professionals' Participation in the Nigerian Construction industry: finding voice for the voiceless. *Organisation, Technology and Management in Construction*, 8, 1429–1436. DOI 10.1515/otmcj-2016-0005
- Karim, N. S., & Tumin, M. (2009). Women NGOs In Malaysia: Development and Implications for Development. In J. Ariffin, Readings on Women and Development in Malaysia (137-158). MPH Group Publishing Sdn Bhd.
- Koch D C, Greenan J and Newton K 2009 Factors that influence students' choice of careers in construction management *Int. J. of Construction Education and Research* 5(4) 293-307.
- Korir, J. and Wafula, W. (2012), "Factors that influence career choice of hospitality students in Moi University, Kenya. *Journal of Education and Practice*, 3(14), 83-90.
- Ling, W. H., Sulaiman, N. B. and Arif, N. B. (2014) Women in Malaysia real estate industry (WIRE) professional challenges and opportunities. International Real Estate Research Symposium (IRERS), Kuala Lumpur, 28-30 April
- Ling Yean Yng, F and Pei Poh, Y (2004) Encouraging more female quantity surveying graduates to enter the construction industry in Singapore. *Women in Management Review*, 19(8), 431-436.
- https://doi.org/10.1108/09649420410570234
- Madikizela, K, and Haupt, T (2010) Influences on women's choices of careers in construction: A South African study. *Construction Economics and Building*. 10(1), 1-15.
- Maina, BN (2013) Factors influencing career choices among undergraduate students in public universities in Kenya a case of compassion international sponsored students, MSc dissertation, University of Nairobi.
- Male, S.A., Gardner, A., Figueroa, E., Bennett, D. (2017) Investigation of students' experiences of gendered cultures in the engineering workplaces. *Eur. J. Eng. Educ.* 3, 360–377
- Mhlange, D. (2012, August 14th). *South Africa Influential Women in Property*. http://www.myproperty24.com
- Moraba, Y. and Babatunde, O. (2019) The leaky pipeline between construction education and women in the construction industry In: Laryea, S. and Essah, E. (Eds) Procs West Africa Built Environment Research (WABER) Conference, A c c r a, Ghana, 1090-1100.
- Ng, Y., Lai, S., Su, Z., Yap, J., Teoh, H. and Lee, H. (2017), Factors influencing accounting students' career paths. *Journal of Management Development*. 36(3), 319-329. Odia, JO and Ogiedu, K.O. (2013) Factor affecting the study of accounting in Nigerian Universities. *Journal of Educational and Social Research*, 3 (3), 89-96.
- Oladapo, R. A. (2017) Gender Bias in the Selection of Estate Surveyors and Valuers in

- Lagos Property Market. FUTY Journal of the Environment, 11 (1), 101-111.
- Oluwumi, A. O., Emeghe I. J., Oluwadamilola A., Fulani O., Peter N. J. and Akinjare
- O. A. (2017) Gender Inequality and Women Discrimination in Real Estate Firms in Lagos State, Nigeria. 29th International Business Information Management Association Conference (IBIMA) May 3-4, Vienna Austria, 4367-4377
- OstadaliMakhmalbaf, M (2014) Identifying and Prioritising the Fundamental Factors that Lead to Inaccurate Perceptions of the Construction Industry. Master's thesis, Texas A & M University.
- Pablo-Lerchundi, I., Morales-Alonso, M. and González-Tirados, R.M. (2015) Influences of parental occupation on occupational choices and professional values, *Journal of Business Research*, 68 (7), 1645-1649.
- Pauli, K. M. S. (2013). All of my bosses have been men" on gender structures in the realestate industry. *Property Management, 31*(5), 420-434. http://dx.doi.org/10.1108/PM-11-2012-0044
- Phathara-on W., Mohmad, Y. S., Abdul Halim, A. (2016) A Framework for assessing gender Influence on career choice of undergraduate students in Thailand. *Proceeding* 10th International Conference on Business, Economics, Social Science & Humanities (*BESSH*, 133(10), 16-21.
- Polgar, T. (2013) Women in Real Estate: Three More Managing Brokers Tell What Drives their Successes. http://www.successwithmore.com
- Punnett, B.J. (2016) Women in the Workforce: A Global Snapshot. In: Connerley, M., W u , J . (eds) Handbook on Well-Being of Working Women. International Handbooks of Quality-of-Life. Springer, Dordrecht. https://doi.org/10.1007/978-94-017-9897-6_33
- Santrock, J. (2005) Adolescence. New York: McGraw-Hill.
- Sewalk, S. and Nietfeld, K. (2013) Barriers preventing women from enrolling in construction management programs. *International Journal of Construction Education Research*, 9(4), 239–255.
- Warren, C and Antoniades H. (2016) Gender in the property industry and professional bodies

 an Australian perspective 22nd Annual Pacific-Rim Real Estate Society Conference
 Sunshine Coast, Queensland, Australia 17-20 January 201
- Winn, J. (2004). Entrepreneurship: not an easy path to top management for women. *Women In Management Review*, 19(3), 143-153.
- Worrall, L., Harris, K., Stewart, R., Thomas, A. and McDermott, P. (2010) Barriers to women in the UK construction industry *Engineering, Construction and Architectural Management* 17(3), 268-281
- Yukongdi, V. and Benson, J. (2005) Women in Asian Management: Cracking the Glass Ceiling? *Asia Pacific Business Review*, 11(2),139-148. https://doi.org/10.1080/1360238042000291225

AFRES 21ST ANNUAL CONFERENCE 163