

Factors influencing real estate students' academic performance in an emerging economy

Gender and socioeconomic perspectives

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Abstract

Purpose – The purpose of this paper is to examine the extent to which variations in gender, socioeconomic and academic background influence real estate students' academic performance in Nigeria.

Design/methodology/approach – Data for the study were collected using self-administered questionnaire, served on final year real estate students in two of the three Federal universities offering real estate as a course in Southwestern Nigeria. Data collected were analyzed using mean, frequency count, percentages, independent *t*-test, correlation and analysis of variance.

Findings – The result of the study suggests there is no statistically significant difference in the academic performance of Nigerian real estate students based on gender and socioeconomic background.

Research limitations/implications – The study has been limited to the sensitivity of either gender to possibly constraining socioeconomic and academic factors that might have served as barriers, especially among female students, in achieving outstanding academic performance.

Originality/value – This paper presents one of the few attempts examining gender and socioeconomic perspectives to factors influencing real estate students' academic performance, especially from the perception of an emerging African country like Nigeria.

Keywords Gender, Nigeria, Academic Performance, Real estate students, Factors influencing, Socioeconomic

Paper type Research paper

1. Introduction

Factors affecting students' academic performance are diverse and abundant (see for instance Small and Karantonis, 2001; Callanan and McCarthy, 2003; Newell and Acheampong, 2003; Crews 2004; Hermino, 2005; Noble *et al.*, 2006; Kyoshaba 2009; Victor, 2011; Hayat *et al.*, 2013; Ganyaupfu, 2013; Dengra *et al.*, 2013; Adedapo *et al.*, 2015; Kanagi *et al.*, 2015), and it appears that gender variations cannot be dissociated from expected academic output of students in higher institutions of learning. Hence, gender issues with respect to academic achievement are beginning to gain increasing attention across various disciplines and also in workplace performance (see Penner and Paret, 2008; Blanch *et al.*, 2008; Castagnetti and Rosti, 2009; Demirkan and Demirbaş, 2010; Vecchione *et al.*, 2014) and real estate and the built environment is not exempted (Dimovski and Brooks, 2006; Demirkan and Demirbaş, 2010; Dimovski *et al.*, 2016; Poon, 2016). The experience in Nigeria and perhaps other emerging economies appear similar to the observed trends in developed economies, typically having a wide



disparity between males and their female counterparts in the real estate sector and the built environment in general. According to the National Bureau of Statistics (NBS, 2015) report, showing the number of employees in the real estate sector in Nigeria, while male employees accounted for 71.36 percent, female employees constituted 28.64 percent of the total workforce in the real estate sector as at 2012. This wide disparity in the number of employed workforce between both genders is not quite different across the three major real estate markets of Lagos, Port Harcourt and Abuja in Nigeria, as the total number of males and females employed in the real estate sector in these states accounted for 70.16 and 29.84 percent, respectively. One reason that could be adduced for this wide disparity could be the general notion that the real estate sector is male dominated. Hence, it appears that female real estate students get disinterested in pursuing further career advancement. Also, another reason might be as a result of poor academic performance which might hamper their chances of securing a job placement in the real estate sector. While good academic performance might serve as an edge in competing favorably, poor academic performance might dampen the morale and interest of pursuing a career in the real estate sector.

Given the high level of unemployment in Nigeria which currently stands at 18.3 percent (13.5 million) (NBS, 2015), the need to examine the academic performance of students of tertiary institutions, and in particular real estate students become germane. This becomes more compelling given the contribution of the real estate sector which currently stands at about 7.5 percent, the huge amount of investments in real estate sector (NBS, 2015), and the fact that Nigeria represents the largest market in Sub-Saharan African and one of the two strongest economies in the entire continent. It is, therefore, imperative that international real estate researchers, scholars, practitioners and other industry stakeholders have the awareness of the factors that impact on real estate students' academic performance along gender and socioeconomic bias, thereby projecting the likely performance of either gender in terms of workplace performance and productivity. This study, therefore, seeks to examine gender and socioeconomic differences to factors influencing real estate students' academic performance in an emerging economy like Nigeria. Specifically, the study pursued two objectives, which are to; examine the socioeconomic and academic background of real estate students, and analyze gender differences in factors affecting real estate students' academic performance.

2. Literature review

A number of extant literature have offered empirical investigations into gender differences in graduate training and subsequent workplace practice, while some others have examined the role of socioeconomic and academic background on students' academic performance. The study of McNabb *et al.* (2002) analyzed the determinants of gender differences in the educational attainment of university graduates in England and Wales. The study found that though female students perform averagely better than their male counterparts, males have a higher likelihood of obtaining a better class of degree than their female counterparts. Dimovski and Brooks (2006) investigated the gender composition of the board of directors of property trust IPOs in Australia. The paper observed that size of property trust companies served as a determinant in the number of female directors, given that larger Australian property trust IPOs employed more women directors than retail property trust IPOs. Barry's (2005) paper examined the influence of socioeconomic and academic factors such as peer control, school and family on the academic achievement of students. The study noted that socioeconomic factors are strong predictors of students' academic attainment. A similar study by Noble *et al.* (2006) noted that students' past academic records at high school directly affected their scores during

the American College Test. However, socioeconomic variables such as family income, parents' educational level, and negative family situations indirectly influenced students' scores. Corroborating the findings of McNabb *et al.* (2002), Dayioğlu and Türüt-Aşık (2007) studied gender differences in the academic performance of undergraduates in a Turkish University (Middle East Technical University, METU). The study found that fewer number of females gained admission into the university and with comparatively lower scores than their male counterparts. However, the females performed better in their academics than their male colleagues during their course of study. The study of Kyoshaba (2009) investigated factors affecting students' academic performance at Uganda Christian University. Findings from the study revealed a significant relationship between students' academic performance and A-level and Diploma admission points, parent's socioeconomic class and previous school background. However, there was no relationship between students' level of maturity and academic accomplishment. Demirkan and Demirbaş (2010) analyzed the role of gender and styles of learning on the academic achievement of interior architecture and environmental design students. The study concluded that there was no relationship between gender and learning styles among design students.

Furthermore, Bahar (2010) examined the effect of gender, sociometric status, family, friends and social support as determinants of students' academic performance. Using multiple regression analysis, the study found that gender, familial support, and sociometric status are important predictors of students' academic performance. However, support from friends was not a predictor of students' academic success. Joensuu *et al.* (2013) analyzed the development of entrepreneurial intentions among students in higher institutions and the influence of gender on motives for entrepreneurship. Data were collected over 2010-2012 across seven universities and analyzed using latent growth curve analysis. The study noted that there were gender variations in the initial level of entrepreneurship intentions; with the females having lower ratings. Also, the development of such motives over time decreased with the females students than their male counterparts. Staffansson-Pauli's (2013) study examined the gender structure of the Swedish real estate industry. The study was based on structured interview and examination of annual reports of commercial real estate and public housing companies in Sweden. The paper found that there was no significant difference in the gender structure and composition of the real estate and public housing companies. Yeshimebrat *et al.* (2013) investigated the factors affecting female students' low academic performance and the reason for the high dropout rate among female students at Bahir Dar University in Ethiopia. The study examined both on and off campus factors such as personal related factors, university induced factors, academic and economic factors. The findings revealed that uncondusive learning environment, peer influence, inadequate human and material resources and family background were major causes of female students' poor academic performance. Hence, the reason for the high rate of attrition. In the same vein, Okioga (2013) examined the effect of socioeconomic experience on students' academic achievement. The author submitted that there exist a strong relationship between students' socioeconomic background and academic performance. Lee and Mallik (2015) analyzed the role of students' personal traits on academic achievement in a real estate distance learning the undergraduate program. Sampling a total of 126 online graduates, the study concluded that entry qualification and age significantly influenced academic achievement of real estate distance learning students. Kanagi *et al.* (2015) examined the effect of socioeconomic and academic factors on first-year undergraduate students' academic performance. The study found that academic influences such as cumulative grade point average of students during entrance examination were an important determining factor while socioeconomic factors such as gender and place of origin were deemed less important in contributing to students' academic performance.

Other recent studies such as Dimovski *et al.* (2016) studied the number and proportion of female directors and executive directors on the management board of listed Australian Real Estate Management and Development companies. The study found that the female representation was abysmally low and thus concluded that it appears that women director and executives were not considered as strategic players among Australian real estate companies. Poon and Brownlow (2016) investigated the potential effect of gender on graduates of real estate and other built environment disciplines with respect to employment outcomes, the pattern of employment and other issues related to graduate employment. Using descriptive and inferential statistics, the study found that males are more likely to get full-time employment than their female counterparts. While female graduates dominated secretarial and administrative roles, their male counterparts dominated the technical and professional roles. The study further found that gender impacted on the salary level and contract type, as these areas tend to favor male graduates in the built environment. The paper concluded that male graduates enjoy favorable job placements than their female counterparts. Warren and Antoniadis (2016) investigated issues of gender equality among professional bodies in the Australian property industry. Analyzing annual reports of top property professional association in Australia, the study found that though there is a realization of the need to be more gender sensitive, there has not been significant progress in terms of achieving gender equality among property professionals. Staffansson-Pauli (2016) examined how annual reports of public housing and commercial real estate companies impact on gender roles in the Swedish real estate sector. The paper analyzed the photographs on annual reports of 14 public housing companies and eight commercial real estate companies for the year 2011. The study found that Swedish real estate company often typify men as their employees, women are shown as being young and given lesser positions, while both genders are shown in stereotypical positions when presenting companies annual reports. Poon (2016) examined factors affecting employment pattern of real estate and built environment graduates in Australia. Using data collected from the Australian Graduate Survey, and analyzing with the use of descriptive and inferential statistics. The study examined differences in factors such as gender, age, type of attendance, study mode, degree level and English language proficiency for real estate and built environment graduates and the effect of these factors on graduates' employment outcome. The study found that proficiency in the English language was a significant factor in securing employment for real estate graduates. The study also found that age and attendance type impacted on the employment pattern of real estate and built environment graduates.

Based on the foregoing, it could be noted that most studies found a strong correlation between students' academic attainment and socioeconomic factors; particularly family setup and influence of peers. Further conclusions from most other studies supported the notion that male real estate graduates appear to be better placed when considering employment opportunities and job description in the real estate sector. However, there appears to be an apparent dearth of studies into gender and socioeconomic issues from the perspectives of an emerging country like Nigeria. While it appears that expectations on issues of gender and socioeconomic parameters in most emerging economies would differ from realities in advanced economies, an examination of these factors becomes germane as it might present a differing perspective from findings in developed countries. Thus, the paper complements literature by investigating gender and socioeconomic perspectives to factors influencing real estate students' academic performance in an emerging African country like Nigeria.

3. Research method and data

Real estate as an academic discipline in Nigeria is offered both at the polytechnics and universities. However, given the existing disparity between the graduates of these two tertiary institutions, preference is accorded to university graduates. This is borne out of

the notion that university graduates are better equipped than polytechnic graduates, thus, polytechnic graduates were thus excluded from the target respondent for this study. Furthermore, while there are three federal universities offering real estate in Southwestern Nigeria, there are no state-owned universities offering real estate as an academic discipline. Hence, two federal universities (Obafemi Awolowo University, Ile-Ife and Federal University of Technology, Akure) were selected for the study, out of the three federal universities offering real estate as an academic discipline in southwestern Nigeria. While real estate students in these two institutions were selected as the study population for the study, the sample frame for the study comprised all the final year (500 levels) real estate students in these two institutions. The final year students were selected because it is expected that they have a better understanding than students in lower classes (100-400 level) and their level of perception is expected to reflect the existing realities, thus they are in a better stead to give reliable/valid responses to the questions raised. The study employed self-administered close-ended questionnaire. Out of a total of 152 questionnaires administered to the respondents in these two institutions of higher learning (89 at Obafemi Awolowo University and 63 at Federal University of Technology, Akure), a total of 127 questionnaires (83.55 percent response rate) were retrieved and found suitable for analysis.

The questionnaire contained two sections. The first section focused on the socioeconomic and academic background of the students, examining a range of items such as age, gender, marital status, mode of admission, the influence of family setup on their academic performance and factors influencing respondent's decision to study real estate among others. The second section sought responses about the perception of the respondents on factors influencing their academic performance. In analyzing the factors impacting on real estate students' academic performance, the authors identified a list of factors from existing literature (see Table I) and these were grouped into six themes. These are parental/family background, student's personal factors, school and academic environment, teaching techniques, lecturers and mode of assessment. Subsequently, the students were asked to rank the list of identified factors under each thematic area with respect to how these factors influence their academic performance. A seven-point Likert scale was adopted for the study; 1 – strongly disagree to 7 – strongly agree.

The method of statistical analysis employed for the study includes both descriptive (frequency, percentages, mean and standard deviation) and inferential (independent *t*-test, analysis of variance (ANOVA) and correlation). Socioeconomic and academic background of respondents across gender differences were examined using frequency and percentages. While ANOVA and correlation analysis were employed in analyzing the extent to which variations in selected socioeconomic and academic parameters influence the perception of students on the identified thematic areas. With respect to the factors influencing students' academic performance, the study first determined the reliability coefficient of the items being rated by respondents using the Cronbach's α test. Subsequently, mean values and standard deviation were employed, and the items were subsequently ranked based on the mean values obtained. In determining the significant and non-significant items, a benchmark value of 4; which is $(1+2+3+4+5+6+7)/7$, was adopted. This approach has been employed by past studies which include Chileshe and Kikwasi (2014) and Ikediashi and Okwuashi (2015). Items above the benchmark of 4 were regarded as significant (SS), while items below this benchmark were considered as not significant (NS). The factors were further examined based on the thematic areas and ranked based on the group mean obtained for each theme.

Finally, the study employed independent *t*-test in evaluating responses to the factors influencing academic performance along gender differences. This was done along the thematic areas and for each element under each theme. Where the mean difference is

S/N	Factors	Authors
<i>Parental and family background</i>		
1.	Parent's interest in my academics	Noble <i>et al.</i> (2006), Kyoshaba (2009), Okioga (2013), Kanagi <i>et al.</i> (2015)
2.	Parent's occupation and level of education	
3.	My position and family size	
4.	Availability of finances	
5.	Family pressure to excel in the field of study	
6.	Family background/set-up	
<i>Students' personal factors</i>		
7.	Unavailability of preferred course of study	Victor (2011), Gambo <i>et al.</i> (2012), Hayat <i>et al.</i> (2013), Dengra <i>et al.</i> (2013), Kanagi <i>et al.</i> (2015)
8.	Maturity/age	
9.	Difficulty in understanding the courses being taught	
10.	Study hours	
11.	Clear understanding of the field of study	
12.	Personal interest in the course of study	
13.	Involvement in extra-curricular activities	
<i>School and academic environment</i>		
14.	School's academic calendar	Hermino (2005), Yeshimebrat <i>et al.</i> (2013), Adedapo <i>et al.</i> (2015)
15.	Accommodation type	
16.	Conducive lecture theaters	
17.	Adequate lecture theaters	
18.	School's general environment	
<i>Teaching techniques</i>		
19.	Use of ICT methods in teaching	Small and Karantonis (2001), Callanan and McCarthy (2003), Udoekanem (2013), Dengra <i>et al.</i> (2013), Oladokun and Ayodele (2015)
20.	Students' participation in class	
21.	Tutorials and workshops	
22.	Field trips	
23.	Contact hours	
24.	Use of practical and less of theories	
<i>Lecturers</i>		
25.	Lecturers knowledge and depth	Newell and Acheampong (2003), Ganyaupfu (2013), Dengra <i>et al.</i> (2013)
26.	Lecturers accessibility	
27.	Commitment of the lecturers	
28.	Ability of lecturers to explain difficult concepts	
29.	Sufficiency/adequacy of lecturers	
30.	Mode/method of teaching	
<i>Mode of assessment</i>		
31.	Fairness in class assessments	Crews (2004), Oloyede and Adegoke (2007)
32.	Efforts put in preparation being reflected by the grades	
33.	Adequate study materials	
34.	Sufficient time to understand and assimilate before being assessed	
35.	The lecturers seem to be more interested in testing what I had memorized than what I truly understood of this field of study	

Table I.
Factors influencing students' academic performance as identified from literature

positive, it signifies that the males rated the factor/theme more highly than their female counterparts, while negative mean difference indicates that the females rated the factor/theme more highly than their male counterparts. The significance level was set at $p < 0.05$ for both analyses of variance and independent *t*-test.

4. Research findings and discussion

The results are presented under four sub-sections. The first focused on socioeconomic and academic background of real estate students along gender differences. The preliminary checks on the data were examined in the second subsection. The third subsection presented the results of the mean ranking of factors based on each item, and on a thematic basis. The gender differences with respect to students' perception of the identified influencing factors were presented in the last section (Table II).

4.1 Socioeconomic and academic background of respondents

The analysis of responses from the socioeconomic background revealed that 73.7 percent of female students were aged 24 and below compared to 55.7 percent of males in the same age category. It thus appears that most female students got enrolled at a younger age when compared to their male colleagues. Also, there are more males (44.3 percent) in the higher age bracket of 25 years and above than their female counterparts (26.3 percent). Regarding the marital status of the students, 89.5 percent of females were single when compared to a greater percentage of males (95.7 percent). Also, more female students (8.8 percent) were married, compared to 4.3 percent of males. This indicated that there might be more pressure on the females to settle down into family life than their male counterparts who might need to get some form of social security before considering family life. While 89.5 and 10.5 percent of females were from monogamous and polygamous homes, respectively, a comparatively lower percentage of males (82.9 percent) were from monogamous homes while 14.3 percent indicated they were from polygamous families. Also, responses regarding the type of parenting showed that more female students (71.9 percent) have their parents living together as opposed to 65.7 percent of males who have their parents living together. Furthermore, 84.2 percent of females had a family size of not more than seven as compared to 82.9 percent of males. These responses in relation to the family background, types of parenting and family size suggests that more females appear to have come from relatively stable homes, and this is expected to have a positive influence on their academic performance. This notion is further supported by the findings that 82.5 percent of females indicated that their family setup had a positive influence on their academics as opposed to 75.7 percent of males. Also, 15.8 percent of females and 24.3 percent of males were indifferent to the influence of their family set-up on their academic performance. Perhaps, given that most female respondents have their parents living together and they are from monogamous homes, a greater percentage of females (57.9 percent) indicated that their parents were solely responsible for their monthly stipend, while none of the females indicated that they were self-financed, 11.4 percent of males indicated that they were self-financed and 51.4 percent had their monthly stipend from their parents. Responses further indicated that a greater percentage of females appear to be better financed than their male counterparts. While 75.4 percent of females had a monthly stipend of between 26 USD and 102 USD, compared to 60.0 percent of males, 12.3 percent of females live on less than 26 USD a month compared to a greater percentage of males (15.7 percent) living on the same amount. This suggests that a greater number of female students appear to have better funding, hence they are expected to perform better in their academics than their male counterparts who appear to have a lesser monthly stipend.

The academic background of respondents as shown in Table III revealed that 43.9 and 38.6 percent of females got admitted through remedial classes (pre-degree) and Unified Tertiary Matriculation Examination (UTME), respectively, compared to 34.4 and 45.7 percent of males who got admitted through the pre-degree and UTME, respectively. This shows that while more female students got admitted to the university through the remedial classes, a greater number of males got admitted through the UTME.

Gender and socioeconomic perspectives

	Gender		Total Frequency
	Male Frequency	Female Frequency	
<i>Age</i>			
24 and below	39 (55.7%)	42 (73.7%)	81 (63.8%)
25-30	26 (37.1%)	12 (21.1%)	38 (29.9%)
above 30	3 (4.3%)	1 (1.8%)	4 (3.1%)
No response	2 (2.9%)	2 (3.5%)	4 (3.1%)
Total	70 (100%)	57 (100%)	127 (100%)
<i>Marital status</i>			
Single	67 (95.7%)	51 (89.5%)	118 (92.9%)
Married	3 (4.3%)	5 (8.8%)	8 (6.3%)
Others	0 (0.0%)	1 (1.8%)	1 (0.8%)
Total	70 (100%)	57 (100%)	127 (100%)
<i>Family background</i>			
Monogamous	58 (82.9%)	51 (89.5%)	109 (85.8%)
Polygamous	10 (14.3%)	6 (10.5%)	16 (12.6%)
No response	2 (2.9%)	0 (0.0%)	2 (1.6%)
Total	70 (100%)	57 (100%)	127 (100%)
<i>Type of parenting</i>			
Divorced/single parent	0 (0.0%)	1 (1.8%)	1 (0.8%)
Living separately	15 (21.4%)	12 (21.1%)	27 (21.3%)
Living together	46 (65.7%)	41 (71.9%)	87 (68.5%)
Orphan	6 (8.6%)	0 (0.0%)	6 (4.7%)
No response	3 (4.3%)	3 (5.3%)	6 (4.7%)
Total	70 (100%)	57 (100%)	127 (100%)
<i>Family size</i>			
1-4	17 (24.3%)	13 (22.8%)	30 (23.6%)
5-7	41 (58.6%)	35 (61.4%)	76 (59.8%)
8-10	8 (11.4%)	7 (12.3%)	15 (11.8%)
Above 10	2 (2.9%)	2 (3.5%)	4 (3.1%)
No response	2 (2.9%)	0 (0.0%)	2 (1.6%)
Total	70 (100%)	57 (100%)	127 (100%)
<i>Influence of family setup</i>			
Positively	53 (75.7%)	47 (82.5%)	100 (78.7%)
Indifferent	17 (24.3%)	9 (15.8%)	26 (20.5%)
Negatively	0 (0.0%)	1 (1.8%)	1 (0.8%)
Total	70 (100%)	57 (100%)	127 (100%)
<i>Source of monthly allowance</i>			
Solely from parents	36 (51.4%)	33 (57.9%)	69 (54.3%)
Solely from relatives	4 (5.7%)	7 (12.3%)	11 (8.7%)
Both parents and relatives	18 (25.7%)	15 (26.3%)	33 (26.0%)
Self-financed	8 (11.4%)	0 (0.0%)	8 (6.3%)
Others	4 (5.7%)	2 (3.5%)	6 (4.7%)
Total	70 (100%)	57 (100%)	127 (100%)
<i>Range of monthly allowance*</i>			
less than USD 26	11 (15.7%)	7 (12.3%)	18 (14.2%)
USD 26-51	25 (35.7%)	28 (49.1%)	53 (41.7%)
USD 51-102	17 (24.3%)	15 (26.3%)	32 (25.2%)
Above USD 102	11 (15.7%)	5 (8.8%)	16 (12.6%)
No response	6 (8.6%)	2 (3.5%)	8 (6.3%)
Total	70 (100%)	57 (100%)	127 (100%)

Note: *Exchange rate of NGN ₦197 to USD \$1 as at November 2015

Table II.
Socioeconomic background of real estate students'

	Gender		Total Frequency
	Male Frequency	Female Frequency	
<i>Mode of admission</i>			
Pre-degree	24 (34.3%)	25 (43.9%)	49 (38.6%)
UTME	32 (45.7%)	22 (38.6%)	54 (42.5%)
Direct entry	12 (17.1%)	10 (17.5%)	22 (17.3%)
No response	2 (2.9%)	0 (0.0%)	2 (1.6%)
<i>Secondary school background</i>			
Commercial student	18 (25.7%)	10 (17.5%)	28 (22.0%)
Art student	6 (8.6%)	5 (8.8%)	11 (8.7%)
Science student	46 (65.7%)	42 (73.7%)	88 (69.3%)
<i>Area of academic strength</i>			
Mathematical/computation	21(30.0%)	15 (26.3%)	36 (28.3%)
Theoretical	13 (18.6%)	21 (36.8%)	34 (26.8%)
Both mathematical/computation and theoretical	9 (12.9%)	4 (7.0%)	13 (10.2%)
Practical	14 (20.0%)	5 (8.8%)	19 (15.0%)
Combination of all	9 (12.9%)	12 (21.1%)	21 (16.5%)
Others	4 (5.7%)	0 (0.0%)	4 (3.1%)
<i>Daily study hours</i>			
At most 3 hours	4 (5.7%)	2 (3.5%)	6 (4.7%)
4-6 hours	46 (65.7%)	40 (70.2%)	86 (67.7%)
above 6 hours	20 (28.6%)	15 (26.3%)	35 (27.6%)
<i>Engagement in extra-curricular activities</i>			
Often	37(52.9%)	13 (22.8%)	50 (39.4%)
Sometimes	23 (32.9%)	26 (45.6%)	49 (38.6%)
Rarely	9 (12.9%)	16 (28.1%)	25 (19.7%)
Others	1 (1.4%)	2 (3.5%)	3 (2.4%)
<i>Source of knowledge about real estate</i>			
Media	6 (8.6%)	1 (1.8%)	7 (5.5%)
Career talk	3 (4.3%)	4 (7.0%)	7 (5.5%)
Relatives	12 (17.1%)	12 (21.1%)	24 (18.9%)
Friends	8 (11.4%)	4 (7.0%)	12 (9.4%)
During admission process	41 (58.6%)	36 (63.2%)	77 (60.6%)
<i>Influence to study real estate</i>			
Friends	7 (10.0%)	2 (3.5%)	9 (7.1%)
Relatives	8 (11.4%)	8 (14.0%)	16 (12.6%)
Personal interest	25 (35.7%)	17 (29.8%)	42 (33.1%)
Parental influence	3 (4.3%)	5 (8.8%)	8 (6.3%)
Inability to get desired course	23 (32.9%)	23 (40.4%)	46 (36.2%)
Others	4 (5.7%)	2 (3.5%)	6 (4.7%)
<i>Possible performance in preferred course</i>			
Most likely perform better	33 (47.1%)	16 (28.1%)	49 (38.6%)
Quite unlikely perform better	5 (7.1%)	5 (8.8%)	10 (7.9%)
No difference in performance	17 (24.3%)	20 (35.1%)	37 (29.1%)
Not sure of what performance would be	15 (21.4%)	16 (28.1%)	31 (24.4%)

Table III.
Academic background
of real estate students

The secondary school background of respondents showed that a greater percentage of female students (73.7 percent) had the science-oriented background, as opposed to 65.7 percent of males. Students with arts background had the least percentage, with 8.8 percent and 8.6 percent of females and males, respectively. While 36.8 percent of

females noted that their area of academic strength is theoretical, 30.0 percent of males noted that mathematics/computation related courses as their area of academic strength. This suggests that based on the respondents sampled, most males are mathematically inclined while more females are theoretically inclined. A greater percentage of females 70.2 percent indicated that they study for about 4 hours to 6 hours daily as opposed to 65.7 percent of males, while 26.3 and 28.6 percent of males and females study for above six hours on daily basis. This apparently suggests that almost an equal volume of attention is given to their academics by both gender types towards ensuring good academic performance. Responses further showed that more males (52.9 percent) engaged in extra-curricular activities as opposed to 22.8 percent of females, while 28.1 percent of females indicated that they rarely engage in extra-curricular activities as opposed to 12.9 percent of males. This suggests that more males engage in other activities outside of their academic than their female counterparts.

Responses to how the students got to know about real estate as an academic discipline showed that more females became aware of the real estate discipline during the admission process (63.2 percent) and through relatives (21.1 percent), as against 58.61 and 17.1 percent of males, respectively. While only 7.0 percent of females and 4.3 percent males got to know about the real estate discipline through career talks. It thus appears that more male students were aware of the course before their admission into the university. It also shows the important role of relatives and family members in serving as academic guides, this becomes apparent given the sociocultural affinity typical of most African family setup. However, having gotten to know about the career prospects in the real estate discipline, the respondents were asked to indicate the factors that ultimately influenced their decision to study real estate. Responses showed that most females (40.4 percent) decided to study the course due to inability to get the desired course of study, while most male respondents (35.7 percent) opted for the course due to personal interest. A fractional 3.5 percent of female respondents were influenced by friends, while only 4.3 percent of females and 8.8 percent of males were convinced to study the course by their parents. This shows that a greater percentage of male students studied real estate due to personal interest, and perhaps the reason why male students might be expected to perform better than their female counterparts, who were majorly influenced to study real estate due to their inability to get their preferred course, despite their prior knowledge about the real estate discipline. This initial reluctance apparently might have some measure of influence on their academic performance. While a good number of respondents were enrolled for the real estate discipline as a result of other influencing factors aside personal interest, it might be expected that their academic performance might not be as optimal as expected. While 28.1 percent of females and 47.1 percent of males noted that they were most likely going to perform better if given their preferred course of study, 28.1 percent of females and 21.4 percent of males were not sure of what their performance would have been. However, a lower percentage of both males (7.1 percent) and females (8.8 percent) indicated that it was quite unlikely that their performance would be different from what currently obtains.

4.2 Preliminary checks

Having examined the socioeconomic and academic background of the respondents, a preliminary analysis was conducted on the items to ensure the suitability for further analysis. To this end, item-to-total correlation analysis was done on the six thematic areas to ascertain that each theme was consistent with the behavior of the other themes. The results of the analysis of the item-to-total correlation gave significant positive correlation values ranging from 0.35 to 0.75 as shown in Table IV, this shows that the items behaved synonymously with each other. Hence, showing that the factors are suitable for further analysis. The ANOVA was performed to examine if there are

		Parental and family background	Personal factors	School and academic environment	Teaching techniques	Lecturers	Mode of assessment	Total influencing factor
<i>Socioeconomic background</i>								
Age	<i>F</i>	0.481	0.550	2.235	1.236	0.949	0.298	0.965
	<i>p</i> -value	0.696	0.649	0.088	0.299	0.419	0.827	0.412
Religious background	<i>F</i>	1.113	0.868	0.355	0.398	0.143	1.642	0.428
	<i>p</i> -value	0.354	0.485	0.840	0.809	0.966	0.168	0.788
Type of parenting	<i>F</i>	1.272	0.658	1.355	0.569	2.561	1.285	0.553
	<i>p</i> -value	0.285	0.622	0.254	0.685	0.042*	0.280	0.697
Range of monthly allowance	<i>F</i>	1.722	0.090	0.663	0.935	0.615	0.663	0.656
	<i>p</i> -value	0.149	0.985	0.619	0.446	0.653	0.619	0.624
Marital status	<i>F</i>	0.095	0.750	0.662	0.830	0.238	0.424	0.230
	<i>p</i> -value	0.909	0.474	0.518	0.438	0.788	0.656	0.794
Family background	<i>F</i>	2.335	0.027	0.386	0.652	0.119	0.179	0.350
	<i>p</i> -value	0.101	0.974	0.680	0.523	0.888	0.836	0.705
Family size	<i>F</i>	0.672	1.193	1.096	0.949	0.503	0.783	0.087
	<i>p</i> -value	0.613	0.317	0.362	0.438	0.734	0.538	0.986
Source of monthly allowance	<i>F</i>	0.810	1.969	0.287	1.772	0.364	0.792	1.313
	<i>p</i> -value	0.521	0.104	0.886	0.139	0.834	0.532	0.269
<i>Academic background</i>								
Mode of admission	<i>F</i>	0.476	2.378	1.419	1.536	0.404	0.185	1.160
	<i>p</i> -value	0.699	0.073	0.240	0.209	0.750	0.907	0.328
Secondary school background	<i>F</i>	2.916	0.469	0.315	2.323	2.719	0.496	1.155
	<i>p</i> -value	0.058	0.627	0.731	0.102	0.070	0.610	0.319
Influence to study real estate	<i>F</i>	1.504	2.482	0.310	1.101	1.092	1.887	1.174
	<i>p</i> -value	0.193	0.035*	0.906	0.363	0.368	1.102	0.326
Likely performance	<i>F</i>	2.746	1.159	0.386	1.311	0.373	0.942	0.173
	<i>p</i> -value	0.046*	0.328	0.763	0.274	0.773	0.423	0.915
Knowledge about real estate	<i>F</i>	0.046	0.438	0.184	2.733	1.012	1.082	0.946
	<i>p</i> -value	0.996	0.781	0.946	0.032*	0.404	0.368	0.440
Study hours	<i>F</i>	0.230	1.100	0.572	0.080	0.903	0.373	1.049
	<i>p</i> -value	0.795	0.336	0.566	0.923	0.408	0.689	0.353
Total influencing factor	I/T-COR	0.352**	0.619**	0.474**	0.712**	0.753**	0.452**	1

Notes: I/T-COR, item-to-total correlation. * $p < 0.05$, ** $p > 0.05$

Table IV.
ANOVA and item-to-total correlation values for the thematic factors

differences in respondents perception when examined according to their groupings of socioeconomic and academic backgrounds. With respect to the socioeconomic background of the respondents, the findings of the ANOVA, also shown in Table IV, revealed that there is no statistically significant difference in most of the socioeconomic statuses of the respondents and their perceptions of factors influencing their academic performance. The only socioeconomic variable with statistical significance is the type of parenting, which had a significant p -value of 0.042 on factors related to lecturers. Also, examining the influence of academic background of respondents on the factors affecting their academic performance, the results showed that there is no statistically significant difference arising from the majority of the indices under academic background when evaluated against the rankings of the respondents on the thematic areas. However, few other indices such as influence to study real estate, likely performance in the preferred course and knowledge about real estate had significant p -values ($p < 0.05$) on personal factors (0.035), parental and family background (0.046) and teaching techniques (0.032), respectively.

The foregoing showed that there is no significant difference among the males and females respondents' with respect to the rankings of their socioeconomic variation and factors influencing academic performance. One reason that could be adduced for this is that most of the respondents in these two institutions are from a comparatively similar family background, as children of wealthy and influential parents often prefer foreign schools or

indigenous higher institutions that are privately owned as against government owned tertiary institutions.

In examining the factors influencing real estate students' academic performance, the reliability of the instrument was established using Cronbach's α , analysis of the α coefficient of the 36 items revealed a coefficient of 0.69. Though a reliability coefficient greater than or equal to 0.70 is generally considered an acceptable level of reliability, however, an α coefficient of 0.69 suggests that the items have some relatively acceptable measure of internal consistency.

4.3 Factors influencing real estate students' academic performance

An examination of the influencing factors (Table V) based on the mean and standard deviation values shows that 20 of the 35 factors are significant at a benchmark value of 4.0. Based on the mean ranking, the respondents noted that their position/family size, efforts put in preparation being reflected by grades obtained and lecturers being more

Factors	Mean	SD	Rank	Rmk
Student's position and family size (IF03)	5.82	1.50	1	SS
Efforts put in preparation being reflected by the grades (IF32)	5.74	1.43	2	SS
The lecturers seem to be more interested in testing what I had memorized than what I truly understood of this field of study (IF35)	5.39	1.65	3	SS
Personal interest in the course of study (IF12)	5.00	1.64	4	SS
Family background/set-up (IF06)	4.94	1.92	5	SS
Fairness in class assessments (IF31)	4.88	1.70	6	SS
Mode/method of teaching (IF30)	4.86	1.51	7	SS
Commitment of the lecturers (IF27)	4.83	1.57	8	SS
Availability of finances (IF04)	4.78	1.84	9	SS
Students' participation in class (IF20)	4.71	1.58	10	SS
Contact hours (IF23)	4.49	1.64	11	SS
School's academic calendar (IF14)	4.36	1.71	12	SS
Maturity/Age (IF08)	4.35	2.06	13	SS
Sufficiency/adequacy of lecturers (IF29)	4.20	1.72	14	SS
Sufficient time to understand and assimilate before being assessed (IF34)	4.13	1.73	15	SS
Adequate study materials (IF33)	4.10	1.74	16	SS
Lecturers knowledge and depth (IF25)	4.09	1.70	17	SS
Accommodation type (IF15)	4.06	1.96	18	SS
Parent's occupation and level of education (IF02)	4.06	2.03	19	SS
Ability of lecturers to explain difficult concepts (IF28)	4.03	1.64	20	SS
Parents interest in my academics (IF01)	3.98	1.95	21	NS
School's general environment (IF18)	3.97	1.80	22	NS
Lecturers accessibility (IF26)	3.96	1.74	23	NS
Clear understanding of the field of study (IF11)	3.93	1.80	24	NS
Difficulty in understanding the courses being taught (IF09)	3.93	1.88	25	NS
Involvement in extra-curricular activities (IF13)	3.41	1.89	26	NS
Tutorials and workshops (IF21)	3.39	1.83	27	NS
Unavailability of preferred course of study (IF07)	3.33	2.12	28	NS
Family pressure to excel in the field of study (IF05)	3.20	1.87	29	NS
Field trips (IF22)	3.18	1.74	30	NS
Study hours (IF10)	3.17	1.71	31	NS
Use of ICT methods in teaching (IF19)	2.62	1.71	32	NS
Conducive lecture theaters (IF16)	2.54	1.56	33	NS
Use of practical and less of theories (IF24)	2.52	1.66	34	NS
Adequate lecture theaters (IF17)	2.47	1.49	35	NS

Notes: SS, significant; NS, not significant; SD, standard deviation; Rmk, Remark

Table V.
Descriptive statistics for factors influencing real estate students' academic performance

interested in assessing memorized concepts as opposed to students understanding of the concepts with mean values of 5.82, 5.74 and 5.39 and significant values of 1.50, 1.43 and 1.65, respectively are the three top ranked factors impacting on students' academic performance. While the first factor relates to parental/family background, the latter two are grouped under the mode of assessment. Supporting the assertions of Barry (2005) and Bahar (2010), the pattern of responses suggest that the mode of assessment appears to be a major influencing factor on students' academic performance as well as the parental and family setup. While the reason for the responses may not be farfetched as it is generally expected that the cultural and socioeconomic background of most families tend to exert some form of pressure on the students to excel in their chosen career path, as this is seen as a source of pride to family members, relatives, and friends. Thus, this tends to put the students under undue pressure to meet up with this cultural and societal demand. Also, the students mostly believe that their academic grades ought to reflect their inputs, while this might not be unexpected, it appears that students sometimes misjudge their performance in examinations, thus they tend to overrate their abilities. Subsequently, the actual results are often at variance with the students' expectation.

A further examination of these factors under the thematic groupings as shown in Table VI revealed that mode of assessment, parental/family background and lecturers are the top three thematic groupings impacting on real estate students' academic performance. Each having a group mean value of 4.84, 4.46 and 4.33, respectively. This further reveals that the students strongly rated the mode of assessment and parental and family background as an important component strongly impacting on their academic performance. The reason for this is similar to the reason previously adduced under the individual rankings as discussed in Table IV. However, factors relating to the lecturers ranked third. This underscores the importance of a healthy student-lecturer relationship, good preparation before class sessions and mode of teaching. As such where lecturers are inaccessible and mode of teaching is not abreast with global best practices, the students might not be able to perform competitively with their counterparts globally, as such it appears that the students' stand disadvantaged due to no fault of theirs. Hence, the need for a holistic approach to the mode employed in the transfer of knowledge, especially in a specialized discipline like real estate.

4.4 Analysis of gender differences in factors affecting students' academic performance

Table VII showed the results of the independent *t*-test evaluating the gender differences on the thematic areas affecting students' academic performance. The findings revealed that none of the values were significant at $p < 0.05$. Hence, it appears that there is no statistically significant difference in the perceptions of either gender to the factors influencing their academic performance. However, though statistically insignificant, further examination of the mean difference (MD) revealed some noticeable outcomes. To achieve this, male was coded as 1, while female was coded as 2 (i.e. MD = differencing "Males" (1) mean and "Females" (2) mean). This result, supporting the findings of Yeshimebrat *et al.* (2013) showed that the females rated parental/family background, school/academic environment, and teaching technique higher than their male counterparts, as indicated by negative mean difference value. This might be as a result of their seeming attachment and expectations from the parents and family members given the premium placed on the sociocultural attachment between females and their families in most African cultures. This might also have influenced their expectations with respect to the school and academic environment and teaching techniques employed by the tutors. The effect of size as measured by the eta squared showed that the numerical strength of the respondents across both genders has no significant effect on the values of the independent *t*-test analysis.

Thematic group	Factors	Group mean	Group rank
Parental and family background	Parents interest in my academics	4.46	2
	Parent's occupation and level of education		
	My position and family size		
	Availability of Finances		
Students' personal factors	Family pressure to excel in the field of study	3.87	4
	Family background/set-up		
	Unavailability of preferred course of study		
	Maturity/Age		
	Difficulty in understanding the courses being taught		
	Study hours		
School and academic environment	Clear understanding of the field of study	3.48	6
	Personal interest in the course of study		
	Involvement in extra-curricular activities		
	School's academic calendar		
Teaching techniques	Accommodation type	3.49	5
	Conducive lecture theaters		
	Adequate lecture theaters		
	School's general environment		
	Use of ICT methods in teaching		
	Students' participation in class		
Lecturers	Tutorials and workshops	4.33	3
	Field trips		
	Contact hours		
	Use of practical and less of theories		
	Lecturers knowledge and depth		
	Lecturers accessibility		
Mode of assessment	Commitment of the lecturers	4.84	1
	Ability of lecturers to explain difficult concepts		
	Sufficiency/adequacy of lecturers		
	Mode/method of teaching		
	Fairness in class assessments		
	Efforts put in preparation being reflected by the grades		
	Adequate study materials		
	Sufficient time to understand and assimilate before being assessed		
	The lecturers seem to be more interested in testing what I had memorized than what I truly understood of this field of study		

Table VI. Significant influencing factors showing the thematic groupings and mean rating

Thematic factors	<i>F</i>	<i>t</i>	<i>P</i>	Mean difference	η squared
Parental/family background	0.438	-1.375	0.172	-1.037	0.015
Personal factors	0.045	1.197	0.234	1.456	0.011
School/academic environment	0.672	-0.072	0.943	-0.050	0.000
Teaching techniques	0.008	-0.194	0.847	-0.235	0.000
Lecturers	0.485	1.073	0.285	0.912	0.009
Mode of assessment	1.677	1.247	0.215	0.952	0.012
Total influencing factor	1.839	0.624	0.534	1.999	0.003

Table VII. Independent sample *t*-test of factors affecting students' academic performance (Thematic Analysis)

However, there might be the need to examine each factor, item by item to ascertain if there would be any significant result with respect to gender differences, as different from what obtains in the overall findings.

An examination of the factors, item by item as shown in Table VIII, revealed that there is no statistically significant difference between both genders, except for the availability of

finance ($p = 0.046$) and lecturers being more interested in assessing memorized concepts as opposed to students' understanding ($p = 0.001$). The values of the mean difference showed that the females rated most of the factors under parent and family background higher than their male counterparts. This might be due to the aforementioned reasons of family affinity and cultural values. However, under the factors relating to the lecturers, the males rated the factors more highly than the female students, perhaps because the male students often seem to have more access to the lecturers than the females who for fear of victimization appear to tread cautiously when relating with their lecturers. On the whole, it appears that the male students rate the factors more highly than the female students, though statistically the results show that there is no significant difference between the ratings of both genders. Hence, it may be concluded that either gender does not perceive these identified factors influencing their academic performance more highly than the other.

Factors	F	t	p	Mean difference	η squared
Parents interest in my academics	1.036	-1.745	0.083	-0.602	0.02
Parent's occupation and level of education	0.269	-0.250	0.803	-0.091	0.00
My position and family size	2.925	-0.752	0.454	-0.201	0.00
Availability of finances	1.026	-2.015	0.046*	-0.655	0.03
Family pressure to excel in the field of study	1.971	1.502	0.136	0.499	0.02
Family background/set-up	0.977	0.038	0.970	0.013	0.00
Unavailability of preferred course of study	0.397	-0.264	0.792	-0.100	0.00
Maturity/age	2.512	1.899	0.060	0.692	0.03
Difficulty in understanding the courses being taught	0.151	-0.382	0.703	-0.129	0.00
Study hours	0.630	1.139	0.257	0.346	0.01
Clear understanding of the field of study	1.062	-0.498	0.619	-0.160	0.00
Personal interest in the course of study	0.008	1.640	0.104	0.477	0.02
Involvement in extra-curricular activities	0.118	0.975	0.331	0.329	0.01
School's academic calendar	3.120	-0.661	0.510	-0.202	0.00
Accommodation type	0.313	-0.622	0.535	-0.218	0.00
Conducive lecture theaters	1.479	0.287	0.775	0.080	0.00
Adequate lecture theaters	0.003	-0.247	0.805	-0.066	0.00
School's general environment	0.028	1.115	0.267	0.357	0.01
Use of ICT methods in teaching	0.451	0.671	0.504	0.206	0.00
Students' participation in class	0.254	-0.972	0.333	-0.274	0.01
Tutorials and workshops	1.978	0.291	0.771	0.095	0.00
Field trips	0.985	0.339	0.735	0.106	0.00
Contact hours	3.557	-1.885	0.062	-0.547	0.03
Use of practical and less of theories	0.115	0.604	0.547	0.179	0.00
Lecturers knowledge and depth	0.193	0.940	0.349	0.284	0.01
Lecturers accessibility	0.562	0.179	0.858	0.056	0.00
Commitment of the lecturers	1.261	1.549	0.124	0.432	0.02
Ability of lecturers to explain difficult concepts	0.078	0.303	0.763	0.089	0.00
Sufficiency/adequacy of lecturers	0.019	0.172	0.864	0.053	0.00
Mode/method of teaching	0.422	-0.009	0.993	-0.003	0.00
Fairness in class assessments	0.258	0.655	0.513	0.199	0.00
Efforts put in preparation being reflected by the grades	2.648	-0.851	0.396	-0.217	0.01
Adequate study materials	0.198	1.323	0.188	0.409	0.01
Sufficient time to understand and assimilate before being assessed	1.868	-1.175	0.242	-0.362	0.01
The lecturers seem to be more interested in testing what I had memorized than what I truly understood of this field of study	1.600	3.257	0.001*	0.923	0.08

Table VIII.
Independents sample
t-test of factors
affecting students'
academic performance
(item by item analysis)

Note: Significant at $p = 0.05$ level

5. Conclusion

Arising from the need to examine academic performance of real estate students in an emerging African country, this study examined factors affecting real estate students' academic performance based on gender and socioeconomic bias. This was based on the perspectives of real estate students in two federal government owned higher institutions of learning in Southwestern Nigeria. While there has been a dearth of studies on real estate students' academic performance along gender and socioeconomic perspectives, especially from an emerging country like Nigeria, previous research appears to support the notion that socioeconomic factors are strong predictors of students' academic achievement. However, the gender differences in this perception appear not to have been adequately explored.

The results from the study showed no statistically significant difference between the male and female gender with respect to the socioeconomic and academic background and the factors impacting on real estate students' academic performance. While the parental and family background and mode of assessment were regarded as the major factors impacting on their academic performance, an examination of this along gender lines showed no statistically significant difference between the perceptions of either gender. Furthermore, given that a greater percentage of female students became aware of the real estate discipline during the admission process and subsequently opted for the course due to their inability to get the preferred course, the academic performance of female students might be affected as a result of lack of interest in the course of study. Hence, it might be adduced that this initial reluctance to study real estate as an academic discipline might have some degree of influence on the female students' academic performance. A major implication derivable from the study is the need for more robust career awareness by the Nigerian Institution of Estate Surveyors and Valuers especially in secondary schools and colleges with the aim of exposing secondary schools students to the inherent prospects and career pathways in the field of real estate practice. Also, there is a need for a more robust means of assessment which will allow students have access to the mode of scoring and the assessor's expectation on each question. This would help in assuaging the students' misgivings with respect to their assessments and enable them to perform better in subsequent assessments. Hence, ensuring good academic performance.

The study has been limited to the sensitivity of either gender to possible constraining socioeconomic and academic factors that might have served as barriers, especially among female students, in achieving good academic performance in real estate as an academic discipline.

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