### **Challenges To Job Security Of Female Architects In Nigeria**

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Abstract: This paper aims at examining the incidence of job insecurity among women in Nigerian architecture. A mixed-method study of the lingering constraints of the industry, societal perception on the role of the architect and attitudes of women to the profession and practice of architecture shows that female architects are more likely than male architects to experience job dissatisfaction, occupational stress and work-life imbalance. Female architects are twice as likely as their male counterparts to leave the profession over concerns of job security and statistically proven to be less favoured for employment in architectural establishments. The study recommends: 1) female architects need to develop viable practice goals to make them more relevant to the construction industry; 2) participate in on-going practice development initiatives specifically dedicated to the advancement of women and 3) further qualitative study into specific challenges faced by women in the profession with a view to alleviating them.

Keywords: female architects, industry constraints, job security, societal perception

#### I. INTRODUCTION

Architecture is a demanding and exact profession. It begins with a rigorous and complex training process founded on a traditional mentoring style of learning which draws precedents from the arts and the sciences. Architecture evolved into a profession based on formal education in the 1800's after centuries of existing as the "master craftsman" role predicated on the supervisory action of assembling and dictating the services of skilled and unskilled labourers on the construction site (Barbasch, 1989; Bamisile, 2004; Anthony, 2008). The history of the intensely physical activity that accompanied architectural training and eventual practice led to the assumption that becoming an architect was the exclusive privilege of men and as such women were not allowed to participate in the profession till the end of the 19<sup>th</sup> century (Brown, 1989; Martin, 1989; Adams & Tancred, 2000). The shift from purely technical to technical-theoretical learning in architectural education opened the doors to the inclusion of women in architecture. In recent years, the participation of women has been monitored and commended for gradually strengthening female numbers in training and practice in what was formerly known as a "gentleman's profession" (Enwerekowe, 2016, Fulani, 2017).

The age-old role of the architect being the lead consultant of the building industry is not as clear-cut as it used to be. The future of the architectural profession is very much shrouded in mystery. With the increase in the complexity of design knowledge, the architect spends more time designing and less time on practical construction (Enwerekowe & Tsok, 2017). Emerging technologies and support services from allied professionals means that the architect needs to look into everexpanding roles and services required to sustain societal perception and appreciation of the role of the architect. This sets a worrisome tone for the progress of the profession given the fragile state of diversity (mostly in developing countries), the indecipherable nature of the characteristics of indigenous architectural firms and practice culture, and inadequate strategic planning for the advancement of the profession taking into account the current state of the curriculum used in architectural education (Bagilhole et al, 2000; De-Graft-Johnson et al, 2005; Oluwatayo & Amole, 2011). From these standpoints alone, the female architect finds herself in a disadvantaged position as several theories on occupational

stress, job insecurity, low job satisfaction, work-life conflicts and high turnover suggest that more women than men felt disillusioned with their level of architectural practice (Souza-Poza & Souza-Poza, 2000; Pepper, 2005; Sang et al, 2007; Anthony, 2008).

This paper points to the fact that female architects face lingering challenges with job security in the Nigerian architectural profession. Closer examination of factors such as client perception, work styles and attitudes affecting practice development as well as responsorial action to professional constraints explain key differences in departure trends among men and women in the architectural profession. There is a growing body of research into practice development for women in architecture and the challenges they face in professional growth and the findings from this paper monitor trends that are detrimental to their overall practice quality.

# II. HOW SERIOUS IS JOB INSECURITY IN ARCHITECTURE?

Sweet (2006) defined job insecurity as a "condition wherein [professionals] lack the assurance that their jobs will remain stable..." for a specified duration of time: day to day, month to month or even over a period of years. Simply put, it is a general concern about the continued existence of a job in the future ("Job Insecurity", 2017). Typically job insecurity occurs more frequently among unskilled workers rather than among highly-skilled professionals such as architects, engineers and doctors yet job insecurity can affect any employer/employee who experiences downsizing and slimming down of the work field. It is a recurring theme from several studies that job insecurity is connected to reduced productivity (Cheng & Chan, 2007; Reisel et al, 2010); occupational stress and health challenges (Loosemore & Waters, 2004; Ng, Skitmore & Leung, 2005) and increased turnover (Probst, 2002; Probst et al, 2007).

Arguably, architecture is one of the oldest and most versatile of all the known professions: housing and building needs for the environment are fundamental and the architect is the professional charged with the responsibility of ensuring delivery of client goals and aspirations (Bamisile, 2004). Much of the extant literature on the sustainability of the architectural profession has focused on diversification of services rendered to suit changing needs of the construction industry (Ohajuruka, 2013; Ola-Adisa, 2016; Hay et al, 2017; Enwerekowe & Tsok, 2017), underrepresentation, "glass ceilings", discrimination and marginalisation (Lingard, 2003; Fowler and Wilson, 2004) or professional dissatisfaction and stagnation (Zanna et al, 1989; Kingsley & Glynn, 1992; Souza-Poza & Souza-Poza, 2000; Sang et al, 2007).

Ordinarily, architects need not nurse concerns about job insecurity. World populations are still on the increase – in developing nations such as Nigeria, such population increase is almost exponential; housing and building supply fall far below strategic planning and demand (Bello, 2011); urban upgrading and smart building inclusion expands the scope of architectural needs and the building team of the future consists of an expanded team of allied professionals requiring coordination on complex building sites (Langford, 2017). Shrinking of the national economy as a result of the global and domestic recession has resulted in downsizing in key capital intensive infrastructure projects in both the public and private sector (Timberg, 2012). Lucrative commissions have been few and far in between and in most cases, women find themselves unable to vie for these commissions because they are absent from the "old boys club" and golf courses where such alliances with clients and other allied professionals are made (Vytlacil, 1989; Censky, 2012; Okome, 2013; Rosenfield, 2014). The effect of the construction industry slow-down has been felt globally with many award-winning architects seeking commissions in China and the Middle East where remuneration may be smaller but prospects higher (Timberg, 2012).

In a study of Nigerian architecture firms, Oluwatayo and Amole (2011) observed that out of 157 architectural firms sampled in the study, 47% of the firms had no female architect on staff roll. Similarly nearly 64% of the firms that employed the services of allied construction professionals had no such female professional. The study also revealed that 20% of the sampled firms had no female member of staff at all: even in positions of non-architectural capacity such as administrative assistants and secretarial staff. This finding is consistent with a 2015 study on skill sets of Nigerian female architects in a sample of 40 architectural firms in North Central Nigeria which showed that 51.6% of the female employees working in architectural establishments are non-professionals (Enwerekowe & Ola-Adisa, 2015). The study also noted that 5% of senior management in the observed architectural firms were women and only 21% of the female architects were employed on a full-time basis. Many women are engaged on a part time basis in architectural firms in a mentoring or training capacity, either as undergraduate students on internship or during the government-mandated post-graduation year of national youth service. This accounts for why a large number of females are represented in the lower cadres of organisations (Bagilhole et al, 2000; Oluwatayo & Amole, 2011; Burns, 2012; Rosenfield, 2014).

The general perception is female architects were assumed to only find a place in architecture if they contented themselves with fringe roles such as writers, teachers or historians (Vytlactil, 1989; Enwerekowe, 2016). This is because women are more challenged in professional practice by the work-life balance and discrimination rather than competence: single women of certain ages were considered more viable when unencumbered by child rearing and/or marriage (Oluwatayo & Amole, 2011; Dainty et al, 2000). From recent studies therefore, the low proportion of women involved in architectural practice suggests job insecurity in the profession is affected by industry constraints, employer and/or client perceptions as well as female architects' willingness to seek long-term employment in architectural establishments (Almeida, 2007).

### III. METHODOLOGY

The study is a fusion of qualitative and quantitative data sourced from literary research, field studies and data interpretation. The literary research reviewed existing

knowledge on the subject background and reviewed developing trends that stimulate job insecurity for women in the architectural profession in Nigeria. The field study data was sourced from three independent yet related studies conducted between 2012-2017 sampling the responses of nearly 200 practicing architects spread across Nigeria and 100 clients (both male and female). Invitations to participate in the studies were sent out randomly using the database of the Architects Registration Council of Nigeria (ARCON) and the archives of various state planning control boards. The study incorporated a snowballing strategy to administer the questionnaire to architects who may not be captured in the ARCON database. The sample size was consistent with prescribed standards and represents just above 5% of the target population size in conformity with the statistical means of determining the sample size (Onwuegbuzie & Collins, 2007; Fincham, 2008; Uji, 2009). The data was collected using close ended questionnaires and brief interviews administered personally or online at the convenience of the respondent. The aim of conducting the field study was to obtain public opinion on the issues under review. The data was analysed using Analysis of Variance (ANOVA), Severity Index, regression and correlation tests and presented using simple tables, pictographs and simple percentages. All analysis was conducted using Statistical Package for Social Sciences (SPSS) version 22.0.

### IV. DATA PRESENTATION AND DISCUSSION

The profile of the respondents by age and qualification reveals that nearly half of the sample was made up of architects who were middle-aged practitioners who possessed a postgraduate degree in architecture and were fully registered and licensed to practice. Nearly a third of the respondents (38% of the males and 21% of the females) had earned a baccalaureate degree or national diploma and practiced as associate members. In total, 83% of the males and 74% of the female architects possessed at least one form of professional registration. While involvement in practice activity such as design, construction supervision and project management was almost evenly split among the genders, a significantly lower proportion of women were in senior management positions (25% of the males to 16% of females). The findings show also that a significant proportion of the respondents (23% of the males and 31% of the females) were involved in subsidiary architectural services such as teaching, government employment and product sales and marketing.

Another important finding from the demographical study of the respondents was that female participation in the profession dropped significantly by 4.4% at point of undergraduate training (down to 14.9%) and 1.2% at postgraduate training (down to 18.7%) between 2010-2014. The proportion of female architects rose almost insignificantly by 1% for Fellows, 0.6% for Full members and 1.3% for Associate members during the same period under review. This indicates that the number of women entering into the professional field is on the decline and suggests widening gaps of underrepresentation.

### A. INDUSTRY BASED CONSTRAINTS

The first factor identified to challenge job security for female architects in Nigeria are industry constraints which are made up of documented attitudes and work-styles of the architectural profession. Thus the first test in the study seeks to establish a causal relationship between the attitudes and work-styles of the architectural profession and job security of female architects in Nigeria. From the statement above, two variables (attitudes and work-styles) can be identified as independent variables while job security is the dependent variable. The results of the regression analysis and correlation appear on Tables 1a and 1b. The coefficient of determination establishes precisely the extent to which the total variation of the dependent variable (job security) is explained by the independent variables (work-styles, attitude).

From the analysis, the value of the coefficient of determination  $(R^2)$  of 0.993 implies that 99.3% variation in job security is due to variation in work-style and attitude. The remaining 0.7% is due to variation in the disturbance term or stochastic variable (u). It is found that the R, i.e. correlation coefficient, is 0.997 (99.7%). This implies that there is strong positive relationship between the dependent variable (job security) and the independent variables (work-styles and attitude). The Significant F Change (F-stat) value is significant and therefore indicates the job security of female architects in Nigeria is linearly related to the work-style and attitude of architectural profession. The correlations between the individual parameter that make up work-style and attitude and job security of female architects in Nigeria were also estimated. The parameters were all found to have strong positive correlation with job security, including those found to be statistically insignificant using the standard error test. This therefore can be interpreted to mean the attitude and workstyle of the architectural profession has a significant effect on the job security of architects in Nigeria and this is affected by gender.

Variables		criptive itistics	Coeffi [B]	Std. Error	t- stat.	Corre	lation		0% dence 1l for B
	Me an	Stand ard Devia tion				Pear son Valu e	Sig.	Low er Bou nd	Upp er Bou nd
Practice developmen t	20. 69	11.94 5					1.0 00		
Constant, α			-0.079	0.209 **	- 0.378	0.70 6		- 0.49 3	.344
WORK- STYLE									
Intolerance / lack of acceptance	1.8 7	1.255	0.497	0.258 **	1.927	0.05 6	0.9 49	0.01 2	1.00 6
Relegation to desk bound jobs	2.2 6	1.189	-1.665	0.304 **	5.479	0.00 0	0.9 60	2.26 5	1.06 5
Sexual harassment	2.1 3	1.263	1.386	0.402 *	3.446	0.00 1	0.9 75	0.59 2	2.18 0
Undue excuse from certain jobs	2.2 9	1.317	0.985	0.356 *	2.771	0.00 6	0.9 73	0.28 3	1.68 7
Existing male culture of the profession	2.5 3	1.266	1.392	0.310 *	4.491	0.00 0	0.9 55	0.78 0	2.00 4

Conflict of interest in gender roles	2.0 8	1.273	0.427	0.415 **	1.029	0.30 5	0.9 72	0.39 3	1.24 7
Unequal opportuniti es	2.3 1	1.287	2.340	0.427 *	5.477	$\begin{array}{c} 0.00\\ 0\end{array}$	0.9 81	1.49 6	3.18 3
Cultural/so ciological perceptions	2.5 0	1.204	-0.351	0.325 **	1.080	0.28 2	0.9 53	0.99 3	.291
Remunerati ons (wage) disparity	1.8 6	1.113	-0.978	0.250 **	3.912	0.00 0	0.9 29	1.47 2	485
ATTITUD ES									
Intimidatio n	2.2 0	1.225	0.065	0.397 **	0.163	0.87 1	0.9 74	0.72 0	.849
Competenc e	2.0 9	1.274	1.141	0.517 *	2.205	0.02 9	0.9 77	0.11 9	2.16 2
Inter-staff relationship s	2.1 0	1.173	0.150	0.355 **	0.422	0.67 3	0.9 67	- 0.55 1	.851
Low-self esteem	2.1 0	1.267	2.039	0.482 *	4.234	0.00 0	0.9 78	1.08 8	2.99 0
Lack of exposure	2.2 1	1.281	2.013	0.449 *	4.479	$\begin{array}{c} 0.00\\ 0\end{array}$	0.9 83	1.12 6	2.90 1
Lack of mentors and role models	2.3 7	1.285	1.539	0.398 *	3.865	0.00 0	0.9 74	0.75 3	2.32 6
Apprehensi on at leadership positions	2.2 3	1.280	-1.763	0.524 **	3.364	0.00 1	0.9 75	2.79 7	0.72 8

Table 1a: Regression analysis on the attitude and work-style of the architectural profession on job security of female architects in Nigeria, 2010-2014

Model						Change	e Statist	ics	
	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	R <sup>2</sup> Change	F Change	Δf1	Δf2	Sig. F Change
1	0.997 <sup>a</sup>	0.993	0.993	1.026	0.993	1530.486	16	166	0.000
1		0.770	Model sı						

analysis in table1a

## B. CLIENT AND EMPLOYER PERCEPTIONS OF FEMALE ARCHITECTS

Client and employer perception about employability skills also played a significant role in determining the extent of job insecurity among female architects. Tables 2a and 2b show the results of a Severity Index (SI) ranking of employers' assessment of the female workforce in various fields of architectural practice. The findings show that female architects were adjudged to possess good inter-personal skills but lower thinking and problem solving skills. This was a gender neutral observation on the part of the employers. The findings also drew attention to the perception that more male than female employers felt that female architects possessed poor selfmanagement skills which includes aspects such as time management, dress sense and behaviour, ability to overcome challenges and seek counsel when needed. The study showed that 53% of the male respondents and 61% of the female respondents expressed dissatisfaction with the overall quality of graduates from Nigerian Higher Education Institutions (HEI's) and decried the gap in acquired knowledge between classroom and practice was becoming more glaring as time goes on. This was held to be the top reason why female architects were not favourable in selection for limited

openings in architectural establishments: followed closely by the perceived inability to commit to the hassles of the profession during child-bearing years which cause a staccato style of practice. This opinion was expressed by one male respondent thus, "there is nothing wrong with female architects. They are excellent, in fact. The problem is when they start having babies..." Noteworthy was that none of the employers in the sample had employed a full time female architect in the last five years despite admitting to conducting recruitment exercises annually.

No.	Skill set	% MR	% FR	% MR	% FR	% MR	% FR	% MR	% FR	% % MR FR
		Wea	<b>k</b> (1)	Fair	r (2)	Good	<b>1</b> (3)	Excell	ent (4)	Unsure (0)
А.	Functional skills: makes suggestions, accepts new ideas and constructive criticism, takes responsibilities	0	0	25	67	33	33	33	0	9
(i)	for outcomes Uses numbers effectively – measuring, estimating, recording and calculating	0	0	25	67	66	33	9	0	0
(ii)	Uses effective language – comprehends written and spoken English in a logical manner	0	0	9	67	66	33	25	0	0
(iii) B.	Uses IT effectively – competent with computers and related systems Personal skills –	8	0	17	0	50	100	25	0	0
Š	ready to learn and exhibits good people skills	0	0	9	0	66	100	25	0	0
(i)	Self-management – punctuality and time management, appropriate dressing and behavior, overcomes challenges and seeks counsel	17	0	17	33	42	67	24	0	0
(ii)	Thinks and solves problems – creativity, prioritizing, solution development,	8	0	25	67	58	33	9	0	0
(iii)	Team playing, cooperation, being assertive	0	0	33	0	33	100	34	0	0
(iv)	Understanding the business ideology and culture, client satisfaction, and positive general outlook for the organization as a whole	0	0	17	67	66	33	17	0	0

\*Note: MR = Male Respondent, FR = Female Respondent Table 2a: Employers' assessment of employability skills of female architects who work for them, 2015

No.	Skill set	Severity Index (Male)	Rank (Mal e)	Severity Index (Female)	Rank (Femal e)	Severity Index (Average)	Rank (Averag e)
Α.	Function al skills	2.83	5	2.33	5	2.58	6
(i)	Uses numbers effective ly	2.83	5	2.33	5	2.58	6
(ii)	Uses effective	3.12	1	2.33	5	2.73	4
(iii)	language Uses IT	2.83	5	3.00	1	2.92	3

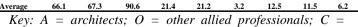
	effective ly						
В.	Personal skills	3.12	1	3.00	1	3.06	1
(i)	Self- manage ment	2.75	8	2.66	4	2.71	5
(ii)	Thinks and soles	2.66	9	2.33	5	2.50	9
(iii)	problems Team playing	3.00	3	3.00	1	3.00	2
(iv)	Understa nding the business	3.00	3	2.33	5	2.57	8
	ideology /culture	5.00	2	2.33	5	2.57	0

Table 2b: Severity Index ranking of employers' assessment of employability skills of female employees (architects only), 2015

Likewise the study examined the client perceptions about the service delivery of architects against the allied professionals in the building industry (Table 3). The results showed that architects were adjudged to be the most literate and eloquent professionals in the building industry but the least time conscious. Clients were significantly dissatisfied with the fees and charges billed for the services of architects and allied construction professionals. Even where collaborative billing is accepted, the findings seem to suggest that client discontent is higher when the architect is part of the sharing formula. There was noticeable client discontent with the billing charges for man-hour rates for architects outside the services of the architect covered by scaled fees (namely, predesign and design activity, land procurement, feasibility studies, sketch designing and detailed designing). 45% of the respondents resorted to limiting the services of the architect during the construction in a bid to cut back on paying additional fees outside billable ones.

The results also showed that most clients hold the opinion that the registration status of the architect matters a lot in negotiating professional fees and charges: fully registered architects were "less flexible" in negotiating deductions or fee waivers. *This observation was gender neutral (emphasis authors):* 43% of the Prime Consultants under review in the study were female and 57% were male of which 87% of the female architects and 90% of the male architects polled in the study were fully registered and licensed to practice. The parity in the figures suggests that the gender of the architect did not play a role in billing practices and remuneration to which most clients objected.

Traits		Satisfied			Undecided		τ	J <b>nsatisfied</b>	
	Α	0	С	Α	0	С	Α	0	С
Professional ism	78.6	92.3	100	21.4	7.7	-	-	-	-
Integrity	71.4	69.2	100	21.4	23.1	-	7.2	7.7	-
Competence	78.6	61.5	100	14.3	23.1	-	7.1	14.4	-
Diligence	64.3	61.5	100	28.6	23.1	-	7.1	14.4	-
Punctuality	28.6	53.8	75	35.7	30.8	-	35.7	14.4	25
Fees and other charges	42.8	61.5	50	28.6	23.1	25	28.6	14.4	25
Attitude/Ide ology	78.6	76.9	100	14.3	7.7	-	7.1	14.4	-
Literacy and eloquence	85.8	61.5	100	7.1	30.8	-	7.1	7.7	-



collaborations between architects and allied professionals.

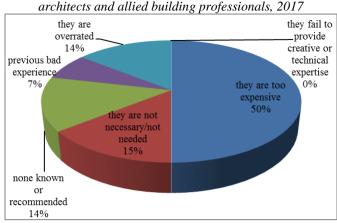


Table 3: Clients level of satisfaction with service delivery of

Figure 1: Reasons why clients forgo the services of an architect

Despite client concerns about architects fees and billing, 67% of the clients agreed that the architect's fees are a relatively small proportion of the total cost of a building project and the involvement of an architect can make positive and often considerable contribution to a project both in terms of cost efficiency and ultimate overall value.

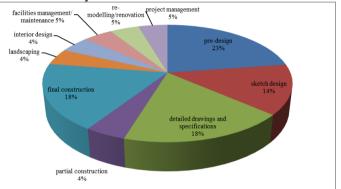


Figure 2: Clients perception of stages in the building process when the architect should be involved

# C. ATTITUDES OF FEMALE ARCHITECTS TO THE PROFESSION

This section examined the respondents' opinions to their future professional ambition in relation to the current nature of their work with a view to evaluating the incidence of job insecurity. The relationship between the female architects' responses to professional barriers and constraints and their professional participation was measured using a Correlation Matrix (Figure 3). Survival techniques and suitable roles of female architects represent the female architects' responses to their barriers and constraints to their job security (Tables 4(ae)).

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	Number of Items
0.996	0.996	26

Table 4a: Summary of the reliability test on data, 2010-2014

	Variables			Indic	ation of P	rofessional	Develop	nent		
		Reco g. from peer s	Size of wor k	No. of proj ects	Inco me gene rate d	No. of emplo yees	Cove rage of work	Publ ic spea king	Pos itio n hel d	Mg t. leve l
	Working part-time/ flexible hours	0.90 0	0.95 1	0.97 0	0.93 3	0.930	0.93 4	0.93 0	0.94 5	0.93 3
	Working from home	0.93 5	0.93 8	0.93 8	0.95 4	0.959	0.95 3	0.96 8	0.94 0	0.93 8
	Taking leave of absence	0.93 2	0.93 3	0.94 3	0.96 4	0.969	0.94 8	0.95 3	0.93 3	0.92 7
	Employed domestic help	0.90 7	0.93 6	0.95 1	0.93 1	0.929	0.93 1	0.93 6	0.93 1	0.94 2
lues	Deciding not to have children	0.77 0	0.78 1	0.70 8	0.79 5	0.810	0.77 7	0.80 6	0.77 6	0.78 3
Survival techniques	Postponing having children	0.80 3	0.77 9	0.73 7	0.81 3	0.816	0.79 5	0.82 8	0.78 6	0.80 6
urvival	Using child care services	0.93 8	0.94 8	0.92 4	0.94 8	0.947	0.94 8	0.94 1	0.96 2	0.96 2
S.	Will not marry	0.76 7	0.77 1	0.70 3	0.79 1	0.805	0.77 1	0.80 0	0.77 5	0.78 2
	Curtailing personal interests	0.91 7	0.92 9	0.94 0	0.94 7	0.957	0.93 9	0.94 1	0.93 6	0.92 7
	Pursuing personal interests	0.95 8	0.93 4	0.93 9	0.98 7	0.973	0.95 6	0.95 7	0.93 5	0.93 4
	Developing networks outside work	0.84 1	0.92 9	0.93 0	0.86 6	0.876	0.87 9	0.89 8	0.90 8	0.91 2
	Advisory	0.90 6	0.94 0	0.97 3	0.93 1	0.932	0.93 2	0.92 7	0.93 5	0.92 8
e	Supervisory	0.85 9	0.92 6	0.94 5	0.88 5	0.895	0.88 8	0.91 0	0.91 5	0.92 1
Suitable role	Consultation	0.86	0.92	0.94	0.89	0.906	0.89	0.91	0.90 9	0.91 8
Suita	Administrativ e Academic	0.87 1 0.86	0.93 3 0.91	0.95 7 0.92	0.90 0 0.88	0.914	0.90 8 0.88	0.92 4 0.90	0.92 2 0.90	0.92 3 0.91
	Managerial	2 0.88 3	2 0.93 8	0.92 4 0.96 7	0.88 8 0.91 4	0.898 0.923	3 0.92 0	0.90 7 0.93 0	0.90 3 0.93 4	0.91 0.93 0

Table 4b: Inter-item correlation matrix of the relationship between the female architects' response to the barriers and constraints in their profession and probable job insecurity, 2010-2014

	Mea n	Minimu m	Maximu m	Rang e	Maximum / Minimum	Varianc e	Numb er of Items
Item Means	2.322	1.333	3.012	1.679	2.259	0.222	26
Inter-Item Correlations	0.897	0.667	0.989	0.322	1.483	0.006	26

Table 4c: Summary of items statistics of inter-item correlation matrix in table 4b

		Sum of Squares	Δf	Mean Square	F	Sig
Between P	eople	3066.351	80	38.329		
Within People	Between Items	449.144	25	17.966	106.122	0.000*
	Residual Total	338.587 787.731	2000 2025	0.169 0.389		
Total	l	3854.082	2105	1.831		

Table 4d: Summary of ANOVA of inter-item correlation matrix in table 4b

	Intra-class Correlation a	95% Cor Inte			vith Tru ue .05	e			
		Lower Bound	Upper Bound	Value	Δfl	Δf2	Sig		
Single Measures	0.897 <sup>b</sup>	0.866	0.924	95.594	80	2000	0.000*		
Average Measures	0.996°	0.994	0.997	215.088	80	2000	0.000*		

Note: Two-way mixed effects model where people effects are random and measured effects are fixed.

 Table 4e: Summary of intra-class correlation coefficient

The F-Stat (ANOVA) in Table 4d shows that there is significant relationship between the female architects' response to the barriers and constraints in their profession and job security. The breakdown of the individual responses gives further insight into the significance of professional expectations/goals and the nature of work done. The findings support conjecture that job insecurity among female architects is largely attributed to the fact that they are predominantly engaged in non-sustainable and fringe practices of the profession.

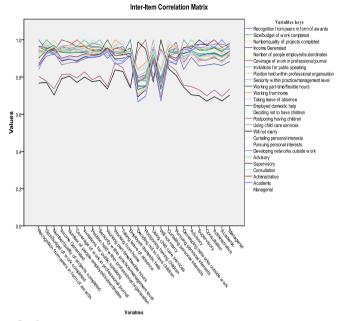


Figure 3: Line graph of the inter-item correlation matrix

Table 5 shows gender differences in the short and long term professional goals of Nigerian architects. Making a significant impact on the outlook of the architectural profession and achieving a satisfactory work-life balance are common goals in the sample observed. However more men than women desire to attain iconic status or achieve fame, become wealthy and remain in the profession. Significantly, nearly half of the women (43.7%) aspire to build sustainable practices.

Professional goals of Nigerian architects	% of Men	% of Women
Short term goals		
Grow own practice	24.5	17.2
Achieve work-personal life balance	12.7	10.0
Expand public profile	2.0	6.2
Long term goals		
Leave behind an impressive body of work	20.6	23.4
Achieve financial security	23.5	18.5
Raise professional profile/contribute to the profession	30.4	34.6
Attain immortality or iconic status	10.8	4.9
Leave behind satisfied clients/public image	37.3	20.0
Build a sustainable/successful practice	36.3	43.2
Obtain higher qualifications	10.8	16.1
Leave the practice	0	2.5
No plans to retire	4.9	1.2
	4.9	1.2

Table 5: Professional goals of Nigerian architects, 2010-2014

### V. SUMMARY OF FINDINGS

From the analysis above, the key findings from the study are as follows:

- ✓ Women are still faced with the threat of rising job insecurity in Nigerian architecture due to lingering constraining factors in the profession. Work-styles and attitudes in the profession (such as work-life imbalance, rigorous yet inadequate training, occupational stress, discrimination, marginalisation, declining societal appreciation etc.) are statistically determined influences that cause higher job insecurity among women in the profession.
- ✓ While job insecurity is a growing concern for both genders given the difficult economic and social conditions under which the profession exists in Nigeria, the ripple effect of the societal perception of the diminishing role of the architect and deliberate responsorial action will have a greater impact on the participation of women in the profession in future given the paucity of their figures and slow growth rates.
- ✓ The major differences in the degree of job insecurity between the genders in the architectural profession come from the gender-based approaches to the practice of the profession. Men are more likely to desire admiration, grow their practices and leave them financially viable. Women on the other hand are more likely to find it difficult to set practice goals for themselves or build up a notable public image due to conflicting gender roles. However informed decisions from women can lead to a sustainable action plan since job insecurity is a genderneutral occurrence.

### VI. CONCLUSION

The study examines the challenges to job security for female architects in Nigeria. While some of the challenges emanate from the attitudes and work-styles of the profession and societal perception, others arise from the attitudes of the female architects themselves. Female architects need to develop viable practice goals and coping strategies to enable them deal with the competitive, demanding conditions in which the profession is situated. The study underscored that female architects need to develop a "thick skin" to survive and thrive in a male-dominated profession and to develop a selfvalue system to remain relevant in the construction industry.

The study also supported the findings of several documented studies that female architects face lingering job insecurity because they particularly do not aspire to improve the situation or put in enough effort to operate at the top levels of the practice. The study therefore recommends on-going and improved professional development exercises and programs for female architects in particular to improve self-awareness and public perception about the benefits of diversity in the profession.

Although the study focused on gender differences in job security to particularly female architects, further work is needed to understand why they report greater dissatisfaction with practice management which could allow for the development of organisational policies that would improve their experience at work and increase the potential to secure further work. Further qualitative research would be useful in allowing respondents discuss and elaborate on their specific challenges which cross-sectional data such as the ones presented here do not permit.

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